

	Location	Progress	Expenditure (M\$)
Tungliao "	Hsingan Nan sheng	Completed	78,000
Keihsing "	Chosen	"	313,100
Nanling "	Kirin sheng	"	43,220
2nd Itung Bridge	Kirin "	44%	40,000
Kuohua "	Chientao sheng	Completed	30,000
Harbin Construction Bureau:			
West Wuchang Bridge	Pinkiang sheng	Completed	122,339
South Mutan "	" "	"	193,430
Tatung "	" "	"	174,000
Hsiawokeng "	Sankiang "	65%	10,000
East Mutan "	Pinkiang "	Completed	195,000
Ningan "	" "	"	138,000
Nuanchuan "	" "	"	75,500
Tsitsihar Construction Bureau:			
Nunkiang Bridge	Lungkiang sheng	Completed	1,402,530
Hailar "	Hsingan Peh "	"	312,250
Imin "	" "	"	122,990

Motor Transport

It was after the termination of the World War that the motor transport service was inaugurated in Manchuria. In July, 1918 the Government issued regulations governing control and license of the business of transporting cargoes and passengers. But, at that time the roads in Manchuria were so imperfect that in the rainy season not only were they very muddy but the rivers all overflowed their banks. In these circumstances, the motor-car service was in use only in leading towns except in case where it was utilized when the streams and the farms and fields were all icebound during the winter. It was only after 1928 or so when principal roads had been reconstructed by Gen. Chang Tso-lin who had practically wielded the power of the north-eastern parts of Manchuria that the number of motor transport companies began gradually to increase. While these transport firms were very poor in their financial position, the operators who were ten-odd in number, ran each one or two cars on one and the same road in

competition with one another to their mutual disadvantage. With the outbreak of the Manchurian incident in 1931, most of these operators disappeared. Since the foundation of Manchoukuo, peace and order in various districts have been gradually restored and roads improved and new ones opened in sympathy with the progress of subjugation of bandits. As a result, the motor-car service has shown swift developments in many parts of the country.

On May 31, 1933 the Government charged the Department of Communications with the supervision and control of the motor transport industry. Due partly to the efforts thus made by the Government for the development of the motor transport and partly to the construction of new highways, the motor bus business has expanded tremendously. The total extension of motor bus lines as at the end of 1936 was 11,272 kilometers under state management and 5,518 kilometers under private management. The development of the motor bus service for the last few years may be seen from the figures appended:—

Table 4. Condition of Motor Bus Transportation

	No. of lines	Length of extension lines (Kms.)	Length of operating lines (Kms.)	Investment (M\$1,000)	Aggregate number of passengers carried (1,000)	Aggregate amount of goods hauled (1,000 m. tons)	Total Receipts (M\$1,000)
Governmental:							
1934.....	19	8,876	3,544	2,300	358	6,650	1,223
1935.....	33	9,935	4,366	2,339	515	5,103	1,580
1936.....	65	11,272	5,644	2,422	700	7,033	1,830
Private:							
1934.....	32	3,752	3,311	2,195	...	...	...
1935.....	63	4,693	4,125	3,830	34,278	16,742	3,239
1936.....	104	5,518	4,215	4,174	43,697	41,252	4,339

All bus services along railway lines or running parallel to such lines, and others over routes which will later become railways, as well as those which play an important role in the opening up of undeveloped regions and in the maintenance of peace and order, and which are

not paying proposition, are managed by the State through the General Direction of State Railways as a subsidiary business of the latter. The other bus lines, however, are left to private management.

Table 5. National Bus Lines of Manchoukuo (Dec., 1936)

Line	(Kms.)	No. of round trip
Chinh sien Direction		
Ancheng Line:		
Antung-Chengtzutuan	232	2 times a day
Tashihchiao-Takushan	175	1 time 2 days
Shantung Line:		
Shanchengchen-Tunghua	145	1 time a day
Fenghu Line:		
Fengtien-Fushun	56	12 times a day
Hainew Line:		
Haihung-Newchuwang	25	4 times a day
Fengcheng Line:		
Faku-Kangping	30	2 times a day
Minchang Line:		
Hsinmin-Changwu	62	2 times a day
Jehol Line:		
Chaoyang-Chienping	92	1 time a day
Chengteh-Chihfeng	265	1 time 2 days
Chengteh-Kupeikou	102	1 time a day
Yingfang-Fengning	47	1 time 3 days
Chihfeng-Linsi	210	1 time 2 days
Lingyuanchan-Lingyuan	72	1 time a day
Weichang-Tuolun	130	1 time 4 days
Kirin Direction		
Kingki Line:		
Hsinking-Kirin	126	5 times a day
Mutankiang Direction		
Kuohai Line:		
Kuohwa-Kuanti	32	1 time a day
Tungmen-Mahao	28	1 time 2 days
Tungman Line:		
Hunchun-Tunghsingchen	100	1 time a day
Tungning-Suifenho	62	1 time a day
Hatung Line:		
Kiamusze-Poli	160	1 time a day
Nohel Line:		
Aigun-Heiho	33	1 time a day
Heiho-Yutachi	124	1 time 3 days
Hatung Line:		
Hulan-Mulan	122	1 time 2 days
Kiamusze-Fuchin	152	1 time a day
Fuchin-Tungkiang	66	1 time 2 days
Fuchin-Paoching	120	1 time 2 days
Mankou Line:		
Mankou-chaochou	70	1 time a day
Mankou-Ching kang	82	1 time a day
Paitsuan Line:		
Antachan-Mingshui	110	1 time 2 days
Tsitsihar Direction		
Paitsuan Line:		
Mingshui-Paitsuan	50	1 time 2 days
Paitsuan-Keshanchan	65	1 time a day
Paitsuan-Hailun	85	1 time a day
Kingtao Line:		
Lungtsuanchen-Taonan	110	{ 1 time a day
{ Lungtsuan-Ankuang		{ 1 time 6 days
Noho Line:		
Noho-Erhketsientun	25	1 time a day
Noho-Nunkiang	91	1 time a day
Hsingan Line:		
Chitokou-Wentsuan	16	1 time 2 days

(Continued)	(Kms.)	No. of round trip
Hailar-Nalemutu	180	1 time 6 days
Taonan-Tutsuan	105	1 time a day
Tsicha Line:		
Tsitsihar-Kannan	107	1 time 2 days
Tungching Line:		
Tungliao-Kailu	94	1 time a day
Total	3,958	

Projected Lines (Dec., 1936)

Tunghwa-Tsian	Muleng-Hulin
Tunghwa-Linkiang	Ilan-Mishan
Tunghwa-Kanjen	Kiamusze-Ilan
Newchuwang-Kaiping	Chikete-Erhchan
Kangping-Chengchiatun	Chentung-Nientsushan
Tsiensuo-Shihmensai	Kannan-Palin
Lingyuan-Lengkou	Heiho-Chinshanchen
Lingnan-Suichung	Wangtsing-Lotsukou
Pingsuan-Hsifengkou	Chingkang-Chengsiangchen
Kailu-Chihfeng	Shinlitun-Ihsien
Kailu-Chingpeng	Harbin-Acheng
Tunghsingchen-Tungning	Noho-Hantachi
Tungning-Muleng	Tungning-Ningan
Mutankiang-Suifenho	Total 27 Lines (4,528 kms.)

Auto Transport Business Placed under New Law

With the object of ensuring the sound development of the automobile transport business in Manchoukuo by eliminating waste and checking competition under suitable state control, a new law was promulgated in March, 1937 by the Hsinking Government governing the auto transport enterprises throughout the country. Officials of the Department of Communications, which have consequently come to supervise all transport enterprises coming under the new law, explained that the new legislation had done away with the numerous defects inherent in the former three sets of regulation adopted for temporary use when the new regime had come into power after the collapse of the northeastern administration.

Their chief shortcoming, the officials pointed out, was that the old regulations merely stipulated the duties of the entrepreneurs and the legal procedure for engaging in the auto transport business, but failed to provide either for its assistance and development or for its guidance and control. Another glaring fault was a lack of uniformity in the rule as applied in different parts of the country, which had constituted a serious obstacle to the general development of the business, according to the same officials. In short, the former regulations were proved to be antiquated and inadequate to meet the needs of growing modern enterprise.

The new law affects all the motor cars running on regular routes operated under fixed schedules or used in general transportation.

This means that all passenger buses, sightseeing buses, and trucks engaged in hauling goods under fixed schedules are affected. Taxis, hired autos, hired trucks, passenger cars operated free of charge by department stores for the convenience of their customers, and school buses do not come under the provisions of the new law, but are governed by department ordinance issued as an appendix. The main provisions of the law are as follows:—

1. All automobile transport enterprises coming under the present law are to be included within the category of public utilities, and as such, must be specially approved by the Minister of Communications before they can be operated.

2. The license for any enterprise permitted by the Minister of Communications is to be valid for a period of not more than ten years.

3. The opening of any new roads for use by any transport enterprise in the operation of its cars at its own expense is to be allowed. In case the roads are to be used for other business as well, the permission of the Minister of Communications is required.

4. As all transport enterprises covered by the present law are public utilities, the permission of the said Minister is necessary whenever any enterprise is to be suspended, abolished or the company to be dissolved.

Road Accidents in 1935

Railway, motor-car other road accidents in Manchoukuo in 1935, as shown by the returns of the Department of Civil Affairs, are tabulated below:—

Table 6. Number of Road Accidents and Casualties (1935)

		Victims						
		Pedestrians	Bicycles	Carts	Wagons	Rikisha	Motorcars	Others
Trains	Cases	96	6	14	12	8	12	8
	Killed	40	2	2	—	—	11	7
	Wounded	64	2	5	10	4	34	2
Tramcars	Cases	18	—	1	—	—	2	—
	Killed	7	—	—	—	—	1	—
	Wounded	11	—	—	—	—	1	—
Motorcars	Cases	289	95	54	111	55	236	6
	Killed	29	3	2	—	1	16	—
	Wounded	263	78	30	75	38	132	6
Bicycles	Cases	143	69	—	12	7	11	—
	Killed	4	—	—	—	—	1	—
	Wounded	130	49	—	—	—	1	—
Rikisha	Cases	51	5	3	4	7	6	—
	Killed	—	—	—	—	10	1	—
	Wounded	34	2	—	—	—	—	—
Carts	Cases	124	18	174	11	7	3	3
	Killed	23	—	33	1	—	—	—
	Wounded	98	12	66	10	6	2	1
Wagons	Cases	149	48	8	37	15	5	—
	Killed	8	—	—	7	1	1	—
	Wounded	132	33	7	57	7	2	—
Others	Cases	1	1	—	—	—	—	—
	Killed	1	—	—	—	—	—	—
	Wounded	—	—	—	—	—	—	—
Total	Cases	871	242	254	185	106	270	18
	Killed	112	6	37	8	2	30	10
	Wounded	732	176	111	156	69	177	10

Table 7. Number of Cars (End of 1936)

(a) Manchoukuo	Bicycles	Rikisha	Wagons	Carts	Hand cars	Motor Cycles	Motor Cars			
							Passenger	Lorry	Others	Total
Kirin	10,471	1,387	1,441	84,298	687	9	288	178	12	474
Lungkiang	4,587	127	2,102	66,536	219	16	217	185	16	418
Sankiang	673	7	856	15,294	10	3	78	214	—	292
Heiho	303	12	135	3,802	25	1	15	20	6	41
Pinkiang & Mutankiang	6,368	303	2,847	85,518	236	8	238	230	10	478
Chientao	3,214	156	139	19,289	222	8	94	79	3	176
Antung & Tunghua	7,360	863	436	16,466	298	6	49	233	10	292
Fengtien	49,405	12,325	6,006	155,697	6,098	49	460	280	62	802
Chinchow	4,028	1,331	877	48,148	381	13	93	106	3	202
Jehol	2,839	934	975	18,264	385	2	63	172	—	235
Hsinking Spec. Muni.	8,846	948	2,842	9,756	160	48	481	182	11	674
Harbin Spec. Muni.	6,484	6,343	2,870	5,729	709	97	836	309	31	1,176
Hailar	104	3	287	1,493	—	—	23	43	—	66
Manchouli	116	—	43	463	—	—	11	2	4	17
Total	104,852	24,739	21,856	530,753	3,430	261	2,946	2,233	168	5,347
(b) Kwantung:										
Kwantung Province	33,925	2,136	1,592	23,492	4,280	—	—	—	—	—
S.M.R. Zone	26,846	2,237	1,697	1,964	1,340	—	—	—	—	—
Total	60,771	4,373	3,289	25,456	5,620	—	—	—	—	—

AIR TRANSPORT

(For Air Service Map see Chapter Transportation, Japan section.)

Manchoukuo has so far little enjoyed the benefit of aviation facilities. Considering its vast area and its topographic and atmospheric conditions, the land can be said to be very suitable for the development of air transportation. Furthermore, the recent conditions of the

country add importance to the air service for the maintenance of peace and order, investigation of the forests and various forms of survey, etc. Thus, air navigation promises a great development in Manchoukuo. In view of this situation, in June, 1933 the Government charged the Roads Administration Bureau of the Department of Communications with the duties affecting air navigation. At the same time, the Government thought that the air transport business should be developed under private management with Government support and encouragement rather than under government management. With this end in view, on October 26, 1932 the Government caused the Manchoukuo Aeronautical Company to be brought into being under Japanese and Manchoukuo joint investment. The Company was organized with a capital of ¥3,850,000. The greater part of the capital was taken up by the Manchoukuo Government, the S. M. R. Co., and the Sumitomo Company. With the Head Office in Mukden and a branch office in Tokyo, and sub-branches in Hsinking, Tsitsihar, Harbin, Dairen, etc., the Manchuria Aeronautical Company is engaged in the following:—

(1) Air transport of passengers, mail matter and cargoes in the interior of Manchoukuo and between Manchoukuo and the two adjoining countries.

(2) Repair of aircrafts and manufacture and construction of the body.

(3) Besides the foregoing items, such forms of business as may be ordered by the Government.

(a) Renting of aircrafts.

(b) All other forms of business relating to aviation.

(c) The following ancillary business are done for the benefit of air transport.

1. Business that are effective in expediting development in Manchoukuo.

2. Business regarding the spread and stabilization of the idea of aviation.

3. Business concerning aerial photography.

Regular Air Service Between Hsinking and Chiangtsin.—The Manchuria Aeronautical Company extended the Hsinking-Chingtsin line to Lungchingtsun. The whole line between Hsinking and Lungchingtsun, which was opened on December 3, 1935, can be covered in three hours. The inauguration of this service is very beneficial to travellers to North Manchuria as it has much shortened the time required for going to Hsinking and Harbin from Seoul by way of the northern part of the peninsula.

The Company now operates a total extension of aerial routes of 7,880 k.m. On November 17, 1936 there was established in Tientsin another aviation company with Sino-Japanese joint investment for the operation of through air service between North China and Manchuria. The new Company, which is styled "The Huitung Aviation Company" was brought into being as a result of three and a half years' negotiations between the Japanese and Chinese authorities in North China. The establishment of this air company marks the settlement of the last of the through communications and traffic questions between the two countries, through railway service and direct coastal and telegraph and telephone communications having been previously established.

The new air company operates four routes, the first between Tientsin and Dairen, the second between Tientsin and Chinchow, the third between Tientsin and Jehol City and the fourth between Tientsin and Changchiakow (Kalgan). Thanks to the opening of the Tientsin-Dairen service, North China and Japan have been brought together within a single day's trip.

The Huitung Aviation Company is capitalized at 4,400,000 yuan invested equally by the two countries. The staff of the Company consists equally of Japanese and Chinese. The Company which was formed as a Sino-Japanese joint enterprise in connexion with Japan's economic programme in North China, is composed of four departments, namely, the General Affairs, Aviation, Business and Education departments. The heads of the first two departments are Japanese and those of the other two Chinese.

It is notable that since the end of 1936 the Manchuria Air Transport Company has operated a machine of pure national make on its main routes.

Hsinking-Tokyo and Tokyo-Tientsin Fast Air Services Opened

The much-heralded "super air express service" bringing Hsinking and Tokyo within less than ten hours of each other was inaugurated on June 1, 1937 when a powerful 12-passenger all-metallic Nakajima A.T. plane left the capital of each Empire early in the morning, and safely reached its destination, the Tokyo bound machine landing at the Haneda aerodrome at 4.30 p.m., 9 hours and 10 minutes after its departure from Hsinking, and the Manchuria-bound plane alighting at the Hsinking aerodrome at 5.15 p.m., after flying for 9 hours and 48 minutes.

The same day a ten-hour air service was also

open between Tokyo and Tientsin via Keijo and Dairen.

Air Ports of Manchuria Aeronautical Co.
Mukden Branch:

Mukden, Chinchow, Chaoyang, Chieh-feng, Shanhaikwan, Lingyuan, Chengteh, Dairen, Shingishu, and Tunghua.

Hsinking Branch:

Hsinking, Yenki, Tumen, Lungchingtsun, Tunhua, Kirin, and Ranan.

Harbin Branch:

Harbin, Tsitsihar, Manchouli, Hailar, Peianchen, Taheiho, Moutankiang, Iran, Fuchin, Pamientung, Taoan, and Nenkiang.

Table 8. Timetable and Fares on Principal Air Routes in Manchoukuo (1938)

Dairen—(630 km: ¥41)—Hsinking Line			
— Daily Flight —			
Dairen — {855 km.} — Mukden — {275 km.} — Hsinking			
{Yen 23} — {Yen 18}			
8.00 → 9.50	10.05 → 11.25		
14.45 ← 13.05	12.50 ← 11.35		
Hsinking—(545 km: ¥55)—Kiamusze Line			
— Daily Flight —			
Hsinking — {235 km.} — Harbin — {310 km.} — Kiamusze			
{Yen 16} — {Yen 39}			
8.00 → 9.00	9.20 → 10.30		
15.00 ← 14.00	13.45 ← 12.15		
Mukden—(505 km: ¥43)—Jehol Line			
— Daily Flight —			
Mukden — {20 km.} — Chinchow — {275 km.} — Jehol			
{Yen 15} — {Yen 28}			
9.00 → 10.15	10.25 → 12.50		
15.20 ← 14.10	14.00 ← 12.30		
Mukden—(825 km: ¥72)—Dairen Line (via Antung)			
Mukden — {240 km.} — Tunghua — {275 km.} — Antung — {310 km.} — Dairen			
{Yen 24} — {Yen 23} — {Yen 20}			
Mon. Wed. & Fri. 9.30 → 11.00	11.10 → 13.05	13.15 → 15.10	
Tue. Thur. & Sat. 15.05 ← 13.25	13.15 ← 11.20	11.10 ← 9.20	
Note: Also stops at: Hwanjen, Tolan, Kwantien, Sulyen.			
Hsinking—(940 km: ¥104)—Jehol Line			
Hsinking — {335 km.} — Kailu — {280 km.} — Linsi — {325 km.} — Jehol			
{Yen 36} — {Yen 33} — {Yen 35}			
Wed. & Sat. 9.30 → 11.15	11.20 → 12.45	12.50 → 14.25	
Thurs. & Sun. 14.05 ← 12.40	12.35 ← 11.20	11.15 ← 9.30	
Note: Also stops at: Tungllao, Chihfeng.			
Hsinking—(600 km: ¥56)—Seishin Line			
Hsinking — {375 km.} — Yenki — {75 km.} — Hunchun — {150 km.} — Seishin			
{Yen 37} — {Yen 7} — {Yen 12}			
Tue. & Fri. 9.00 → 10.30	10.40 → 11.00	11.05 → 11.45	
Tue. & Fri. 14.55 ← 13.10	13.00 ← 12.40	12.35 ← 12.00	
Note: Also stops at: Hunchun.			
Hsinking—525 km: ¥67)—Tungning Line (via Mutankiang)			
(Flights on every Monday, Wednesday & Friday)			
Hsinking — {350 km.} — Mutankiang — {125 km.} — Suifenho — {50 km.} — Tungning			
{Yen 42} — {Yen 18} — {Yen 7}			
8.20 → 10.20	10.40 → 11.25	11.30 → 11.50	
15.55 ← 13.30	13.20 ← 12.25	12.20 ← 12.00	
Note: Also stops at: Mullingchan.			

Harbin—(850 km: ¥91)—Manchouli Line

	Harbin — {275 km.} Yen 22	Tsitsihar — {400 km.} Yen 48	Hailar — {175 km.} Yen 21	Manchouli
Tue. & Fri.	9.30	10.50	11.00	12.50 13.00 → 13.50
Wed. & Sat.	13.45 ←	12.25	12.15 ←	10.30 12.20 ← 9.30

Harbin—(280 km: ¥28)—Mutankiang Line

	Harbin — {280 km.} Yen 28	Mutankiang
Tue. Wed. & Fri.	9.00	→ 10.35
Tue. Wed. & Fri.	15.20 ←	← 13.40

Harbin—(315 km: ¥39)—Kiamusze Line (via Tungho)

(4 flights a week: Mon. Wed. Thur. & Sat.)

	Harbin — {165 km.} Yen 20	Tungho — {80 km.} Yen 10	Ilan — {70 km.} Yen 9	Kiamusze
	8.30	9.15 9.20	9.40 9.45	→ 10.10
	15.15 ←	14.25 14.20 ←	13.50 13.45 ←	← 13.15

Harbin—(1,060 km: ¥105)—Tsitsihar Line (via Heiho)

(via Peianche & Nunkiang)

	Harbin — {425 km.} Yen 42	Sunwu — {155 km.} Yen 15	Heiho — {480 km.} Yen 48	Tsitsihar
Mon. & Thur.	9.15	11.15 11.20	11.55 12.05	→ 14.05
Tue. & Fri.	13.45 ←	11.50 11.45 ←	11.10 11.00 ←	← 9.00

Note: Also stops at: Pelan, Nunkiang.

Kiamusze—(135 km: ¥28)—Fukin Line (via Lopei)

	Kiamusze — {40 km.} Yen 5	Holichan — {120 km.} Yen 14	Lopei — {75 km.} Yen 9	Fukin
Tue. & Sat.	8.45	8.55 9.00	9.50 9.55	→ 10.30
" "	12.25 ←	12.15 12.10 ←	11.15 11.10 ←	← 10.35

Mutankiang—(675 km: ¥97)—Fukin Line

	Mutankiang — {370 km.} Yen 53	Hulin — {305 km.} Yen 44	Fukin
Tue. & Thur.	10.45	13.10 13.15	→ 15.20
Wed. & Fri.	13.00 ←	10.25 10.20 ←	← 8.30

Note: Also stops at: Mulling, Mishan, Jaoho, Tungkiang.

Peking—(490 km: ¥65)—Dairen Line

	Peking — {110 km.} Yen 15	Tientsin — {380 km.} Yen 50	Dairen
Daily	7.25	7.55 8.05	→ 9.20
" "	17.10 ←	16.45 16.35 ←	← 15.20

Peking—(525 km: ¥51)—Chinchow Line

(Flights on every Monday, Wednesday & Friday)

	Peking — {110 km.} Yen 15	Tientsin — {245 km.} Yen 25	Shanhaikan — {170 km.} Yen 11	Chinchow
	8.20	9.10 9.20	10.50 11.00	→ 12.00
	16.00 ←	15.10 15.00 ←	13.30 13.20 ←	← 12.20

NEW AVIATION LAW ENACTED

A most comprehensive aviation law designed to facilitate the sound development under state control of civil aviation was promulgated on May, 26, 1937 with an Imperial Ordinance by the Government of Manchoukuo to be effective on and after June 1st.

The draft of this important law was approved by the State Council when it held an extra-session on May 22nd and by the Privy Council on the 25th. The law consists of 66 articles in all, divided into seven chapters, and sets forth detailed regulations governing all phases of civil

aviation. It clearly defines the kinds of civil aircraft, their inspection by the authorities concerned and forbids flights by any unregistered planes or those whose use is prevented in consequence of official inspection under penalty of imprisonment for varying terms and fines of less than 3,000 yuan. The principal articles of the law follow:—

Article 1: Aircrafts as referred to in the present law include airplanes, airships, balloons, gliders and all other machines usable for flying purposes.

Article 2: All aircraft coming under the following cases shall be regarded as aircraft of Manchoukuo nationality:

1. Machines possessed by the State of Manchoukuo or public organizations in Manchoukuo.
2. Machines possessed by the Manchuria Air Transport Company.
3. Machines possessed by subjects of Manchoukuo.
4. Machines possessed by corporations established under the laws of Manchoukuo whose officials are subjects of Manchoukuo in any of the following cases:
 - a. The whole personnel of unlimited partnerships.
 - b. The whole personnel of limited partnerships.
 - c. In the case of limited joint-stock companies more than two thirds of the total capital stock.
5. Machines possessed by juridical persons other than those mentioned in Item No. 2 and other preceding item, which are established under the laws of Manchoukuo and whose representatives are subjects of Manchoukuo.
6. Machines possessed by any other persons specified by the State Minister concerned other than all the persons and institutions mentioned in the foregoing items.

Article 5: The State Minister concerned may restrict or prohibit the possession of civil flying machines and take any measures whenever such action is deemed necessary from the military point of view or for the control of civil aviation.

Article 6: Persons producing aircraft or possessing aircraft not accompanied by official certificates for inspection by the State Ministry concerned. Official certificates of flying durability will be granted to aircraft which have passed the said inspection.

Article 12: The State Minister concerned may order a periodical or special inspection of aircraft.

Article 15: The State Minister concerned

may restrict, suspend or prohibit the use of any aircraft according to the outcome of the said inspection.

Article 16: No persons other than regular members of the crews of aircraft shall engage in the operation of any aircraft. Such regular members of the said crews shall bear official certificates of ability and flying licences.

Article 18: Regular members of the crews of aircraft shall not engage in the operation of aircraft without carrying flying licences.

Article 38: Aircrafts which are not of Manchoukuo nationality shall not be used for flying purposes without obtaining the permission of the State Minister concerned.

Chapter 7 contains regulations regarding the punishment of violations of the law.

Air Mail Regulation

Article I. Ordinary mail or parcels may be delivered by the Air Mail Service in accordance with the stipulations provided herein.

Article II. The routes for the Air Mail Service shall be announced by separate notification.

Article III. In addition to the ordinary postage stamps required, all mail matters for air delivery shall pay special air mail postage according to rate listed in the accompanying table (All in Manchoukuo yuan):

Article IV. All matters for air delivery shall be marked "Air Mail" on the cover or envelope.

Article V. All mail matters for air delivery shall be taken to the Post Office, but ordinary unregistered matters may be posted into post-boxes.

Article VI. In case both the ordinary postage and the special air mail postage on mail matters for air delivery which are received in the post-boxes are underpaid, the Post Office may deliver them through ordinary Postal Service by cancelling the words "Air Mail" marked on the cover. But such mail matters bearing stamps sufficient to cover the special rate required shall be delivered by Air Service, and the amount of ordinary postage underpaid shall be charged "double shortage" upon delivery.

Article VII. In case the delivery by air route is likely to be delayed owing to special circumstances, air mail matters may be despatched through ordinary postal service.

Article VIII. Undelivered air mail matters shall be returned or redelivered from the destination Post Office through ordinary postal service.

Article IX. The sender may ask for the return of special air mail postage paid under either of the following conditions:

1. In case the air mail is delivered later than ordinary mail due to some fault on the part of the Post Office;
 2. When mail for air delivery has been despatched through ordinary service.
- The present Regulation shall come into force on the third day of November, First Year of Tatung.
- Parcels post for air service within the territory of Manchoukuo and Kwantung Leased Territory shall not be accepted until further notice.

Table 9. Air Mail Rates (M.F)

Kind of Mail	Weight	Within the Jurisdiction of Manchoukuo & Kwantung Leased Territory		Japan
		Chosen	Japan	
Letters	For every gramme or fraction thereof	0.15	0.20	0.35
Post Cards	Single	0.07	0.10	0.18
	With Carte Repondes	0.14	0.20	0.36
Newspaper, Books, Printed Matters, Commercial Papers	Within 100 grammes	0.25	0.50	0.75
	Within 250 grammes	0.50	1.00	1.50
	Within 500 grammes	1.00	2.00	3.00
	Within 1 Kilogramme	2.00	4.00	6.00
	Within 2 Kilogrammes	4.00	8.00	12.00
Samples, Patterns Series	Within 3 Kilogrammes	6.00	12.00	18.00
	(This weight is only applicable to books mailed by single volume).			
	Within 100 grammes	0.25	0.50	0.75
	Within 250 grammes	0.50	1.00	1.50
Parcels	Within 350 grammes	1.00	2.00	3.00
	Within 500 grammes	1.50	3.00	4.50
	Within 1 Kilogramme	—	2.00	3.00
Parcels	For Over 1 Kilogramme, every 500 grammes or fraction thereof	—	1.00	1.50

TRANSPORTATION BY WATER

The shipping industry in Manchuria had been anything but active owing to the tardy development of general transport facilities. It was not until the end of the nineteenth century when the Chinese Eastern Railway was established by Russia and the South Manchuria Railway by Japan that railway transport began to develop in Manchuria. With the growing activity of the railway service, the coast line began to be active with the ports of Dairen, Port Arthur, Yingkow and Antung as the center.

On the other hand, Manchuria is favoured by nature with many navigable rivers such as the Amur, Sungari, Ussuri, Liaoho, Yalu, Tumen, etc. The economic value of these rivers was considerable when there was no railway service. The rivers in South Manchuria are generally so shallow as can only admit of the navigation of junks, but those in North Manchuria are mostly navigable by river steamers.

Besides repleting port and harbour facilities with a view to connecting the centers of production with sea ports, the Government which recognizes the importance of the rivers is making efforts to further the facilities of river navigation. All affairs concerning the control of navigation are placed under the charge of the Bureau of Transportations, of the Department of Communications. Also, for purposes of navigation administration, the Navigation Administration Bureau has been established at Harbin, Antung and Yingkow. More specially, the Navigation Administration Bureau is under the control of the Minister of Communications and takes charge of the waterways, bays and harbours, ships, crew, pilots, nautical marks and other affairs concerning water navigation.

The navigation administration Bureaus and the district under their jurisdiction are tabulated below:—

Navigation Bureaux By Territories

Harbin Navigation Administration Bureau	Harbin	1st Sungari, 2nd Sungari, Ussuri, Amur, Ar-gun and their branches and coasts.
Yingkow Navigation Administration Bureau	Yingkow	
Antung Navigation Administration Bureau	Antung		Pohai and the Liaoho which empties into it and other rivers, and their branches and coasts.
		Huanghai and the Yalu emptying into it and other rivers and their tributaries and coasts.

On February 9, 1933 the Manchoukuo Government entrusted the management of the state railways to the S. M. R. Company. The opportunity was taken to sign a contract with the same company for commissioning the management of the navigation business involved, by which navigation under the Sungari jurisdiction and the port and harbour business attached to the Fenshan Line were entrusted to the S. M. R. Co. As a result, on March 1, 1934 the Company

established the Harbin Direction for Navigation under the control of the General Direction of State Railways to supervise navigation business on the Sungari and to take charge of Hulutao.

Rivers

Important rivers on which the Navigation Association operates its vessels are the Sungari, Amur, Liao, Nonni and Yalu. The routes in operation are as follows in kilometers:

Table 10. River Voyage Schedule (End of Sept., 1936)

Routes	Distance (Kms.)	No. of Departures	Time required for return voyage
Harbin-Fuchin	615	Once a day	10 days
Harbin-Heiho	1,423	6 times a month	21 days
Harbin-Hulin	1,285	" "	" "
Harbin-Talai-Fuyu	332	" "	" "
Harbin-Kiangchiao	508	Irregular	12 days
Fuchin-Heiho	808	3 times a month	10 days
Heiho-Moho	827	4 times a month	7 days
Moho-Kilalin	623	Irregular	"
Fulin-Lungwangmiao	286	"	"
Fulin-Mishan	350	"	"

Table 11. Number of Vessels (End of 1936)

Measured in Ton:	Manchoukuo Vessels Under Marine Act				Kwantung Province Registered Vessels			
	Steamers		Sailing vessels		Steamers		Sailing vessels	
	No.	Total tonnage	No.	Total tonnage or koku	No.	Total tonnage	No.	Total tonnage or koku
20 to 100 tons	57	2,389	127	4,206	45	2,473	233	10,481
100 to 500 tons	77	22,899	—	—	19	4,797	2	298
500 to 1,000 tons	30	21,734	—	—	5	3,672	—	—
1,000 to 3,000 tons	7	8,270	—	—	19	36,357	—	—
3,000 tons and over	—	—	—	—	43	201,113	—	—
Total	171	55,292	127	4,206	131	249,412	235	10,779
Measured in Koku:							(Unregistered)	
200 to 500 koku	—	—	216	63,828	—	—	6	530
500 to 1,000 koku	—	—	70	48,506	—	—	—	—
1,000 koku and over	—	—	10	11,302	—	—	—	—
Total	—	—	296	123,636	—	—	—	—
Other Vessels	236	1,112	2,444	294,473	—	—	6	530

As for the navigation on the Yalu and Liao rivers, the situation has not yet reached the stage where modern navigation is in much demand, so that although the General Direction is vested with right to operate vessels on them, at present it is still investigating the real conditions obtaining on these rivers. So far junks and rafts have been sufficient to take care of what traffic there are on the two rivers.

Due to severe winter, the routes can only be operated about 7 months of the year, yet the personnel has to be maintained even during the freezing season practically in full force. Added to this already adverse condition a great deal of the traffic is expected to be diverted to the railways when the projected ones are completed;

consequently it is considered almost impossible to obtain any profit from this enterprise. The most that could be expected is a par between revenue and expense. In other words this enterprise is operated solely for public service.

However, the General Direction is sparing no effort in curtailing unnecessary expenses by efficient use of vessels, by elevating the efficiency of personnel, etc. and in finding new sources of revenues, such as, by opening up new paying routes, attracting traffic and popularization of this means of transportation.

Besides the transportation facilities that have already been dealt with the General Direction is also conducting various public enterprises such as the development of local industries, spreading

of education, modern sanitation and the maintenance of peace and order along the railways. In other words the mission of the General Direction does not stop at merely carrying passenger and goods, but it also involves those enterprises that will help to enhance the general development of the country which might of course mean business to the railway in some distant future, but at tremendous initial sacrifice to the railway.

The Sungari.—Though no more than a tributary, an extensive region in Northern Manchoukuo from the Changpai range down to the Heilungkiang is watered by the Sungari. Its valley extends over a long distance of 600 ri. The Sungari is the most important water course in Northern Manchoukuo, important not only for transportation but also for irrigation. Although the upper stream is not available for traffic on account of shallows and of danger from bandits, the waterway down Harbin is navigable even by steamers displacing 1,000 tons and more. The Port of Sungari and the Port of Harbin are the two principal river ports which the Sungari has on its course. The part where traffic is most active extends from Harbin to the point where the Sungari joins the Heilungkiang, the depth measuring 7 feet on the average.

History of Traffic on the Sungari.—The origin of traffic on the Sungari dates far back to old times. Russian steam-boats were pioneer explorers of the navigable course in the lower stream towards the latter half of the 19th century. They steamed up the Heilungkiang and entered the Sungari as far as Kirin in 1895. Chinese boats came there later than 1907, and Russia held, by virtue of treaties, the power of navigation on the Sungari until 1917, when the Tsarist Government was overthrown by Soviet Revolutionaries. Apprehensive of seizure by the Soviet, Russian shipowners hurriedly sold their vessels to Chinese capitalists interested in shipping at reduced prices. Since that time, Chinese have become powerful in the shipping world on the Sungari. The Chinese authorities prohibited shipping by Russians on the Sungari between Kirin and Laohsiaokow in 1920, and shipping business on the whole stretch of that river by Russians was forbidden in 1924. In September, 1926 China recovered quays and vessels belonging to the Chinese Eastern Railway from the possession of the Soviet.

Navigable Course on the Sungari.—The navigable course on the Sungari is divided into five sections. The uppermost course down to Kirin is shallow, where small steam launches drawing draught of two feet are plying. The course

down to Sincheng is navigable by boats drawing draught up to 9 feet, and Harbin to the mouth is most easy of navigation. The plains along both banks in Lungkiang Province are fertile, so that traffic across the river on ice is carried on during winter.

Liaoho.—The east and west tributaries join in the vicinity of Sankiangkow to form the main stream of the Liaoho, which stretches over a long distance of 3,800 Chinese ri, or 650 Japanese ri. Yingkow lies at its mouth. The river is navigable from the mouth up to Chengchiatun, a distance of 1,438 Chinese ri, watering the plain of Southern Manchoukuo. The area embraced by this river measures 350,000 square ri.

However, sand in great volume is carried down by the stream, leaving shallows in its course and blocking the way of ships, while four months in winter, the most important season of traffic, the river is frozen. The value of the Liaoho in traffic has been largely reduced since the construction of the South Manchuria Railway.

Generally speaking, the Liaoho is not navigable from the 28th November, when ice begins to drift, the river begins to freeze on the 31st December, thaw sets in on the 16th March. The river is frozen for 76 days, and drifting of ice ends on the 30th March.

Yalu River.—The Yalu River streams down from the southern foot of the Changpai Range and runs more than 200 ri into the Yellow Sea. It forms steep declivities at several points; there are reefs in the course, while water decreases in autumn every year, and the river is not easy of navigation. This shortcoming is made good to an extent by propeller vessels and craft of special structure. Manchoukuo is intending to improve the traffic system on the Yalu River.

Timber forms the staple goods of trade along that river above Antung, agricultural products coming next, and principal imports up the river are cotton yarns and threads, salt, flour, oil, and miscellaneous goods. The Yalu Transport Company is conducting goods and passenger service with its vessels under instructions from the Government-General of Chosen. The Yalu Steam Craft Company is carrying on similar business with its propeller vessels and with creditable records.

* The Yalu River is more or less like a dale and not very valuable from the viewpoint of communication. It is frozen from December till March, while it often overflows its banks in July and August.

The Yalu River is divided into five sections

the uppermost course, the upper course, the intermediate course, the lowest course, and the estuary. The uppermost course is passable only by rafts for seven miles. From the mouth to a distance of 40 ri is navigable by small crafts, but steamers drawing 10 feet and above can hardly go up to Antung. They must be moored at the entrance.

The Heilungkiang.—The Heilungkiang is the largest river in North Manchuria. As it streams down the boundaries, it is joined by many tributaries, and it runs 2,500 miles into Mamiya Straits. From the head down to the mouth of the Ussuri, the Heilungkiang for a distance of 1,216 miles form the frontiers between Russia and Manchoukuo and constitutes the important water-way for the development of Northern Manchoukuo. Its navigable distance extends over 8,826 kilometers, and the whole distance navigable by craft other than steam-boats measures 10,601 kilometers.

The Heilungkiang is one of the large rivers of the word, deep enough for ships displacing 1,000 tons and upwards, although there are several shallows at various points, and it has large towns on its banks, such as Khabarovsk, Blagoveschensk, Heiho, and Aigun. Wealthy

plains are watered by this large river. A time will come when the Heilungkiang and the Sungari will be opened for international transportation, and then the number of vessels plying between Harbin and towns on both banks of the Heilungkiang will increase. The river is frozen from the close of October to the middle of May and it is crowded with various descriptions of crafts during summer.

The navigation on this river is said to have been started by Russian explorers in 1643. Communication on this river was established since May, 1857, and the Heilungkiang Steamship Company was organized under Government subsidies later. There were many vessels on the Sungari and the Heilungkiang while Russia was governed by Tsars, but the downfall of the Tsarist Government caused the rapid decrease in the number of passengers and the volume of cargo.

The Nenkiang.—The Nenkiang is not deep enough for steamers to navigate. From the point where it meets the Sungari, the waterway can be navigable only by steamers but other courses are available only for junks and small sailing boats. The lower stream is 200 to 600 meters wide and 5 to 10 feet deep.

Table 12. Entrance and Clearance of Vessels at Dairen Port Classified by Flags

	Entrance			Clearance		
	No. of Vessels	Tonnage (1,000 tons)	Goods Discharged (1,000 m. tons)	No. of Vessels	Tonnage (1,000 tons)	Goods Loaded (1,000 m. tons)
Japan	1934.....	3,038	8,625	3,020	8,589	4,827
	1935.....	3,268	8,917	3,248	8,848	4,207
	1936.....	3,192	8,760	3,176	8,725	4,039
Manchoukuo	1934.....	182	158	164	139	18
	1935.....	110	118	100	104	47
	1936.....	1,013	1,181	989	1,156	149
China	1934.....	922	1,155	906	1,127	291
	1935.....	1,026	1,433	998	1,372	479
	1936.....	310	1,560	306	1,552	1,129
Britain	1934.....	266	1,334	267	1,343	688
	1935.....	261	1,266	259	1,253	636
	1936.....	77	557	77	556	283
Germany	1934.....	87	633	87	634	298
	1935.....	81	577	82	584	299
	1936.....	17	101	20	123	68
Italy	1934.....	11	62	11	62	28
	1935.....	11	67	11	67	9
	1936.....	36	255	33	232	47
Holland	1934.....	25	186	27	195	24
	1935.....	31	235	30	227	25
	1936.....	57	291	52	279	210
Norway	1934.....	59	321	56	309	182
	1935.....	50	281	49	277	120
	1936.....	51	343	52	349	50
U.S.A.	1934.....	45	289	44	282	56
	1935.....	21	131	22	138	23
	1936.....	4,662	13,274	4,611	13,196	6,994
Total incl. others	1934.....	4,930	13,453	4,875	13,332	6,020
	1935.....	4,830	13,153	4,773	13,008	5,871
	1936.....	4,998	13,851	4,974	13,985	5,871

Table 13. Arrival and Departure of People Through Ports of Kwantung Province

	Landing			Leaving		
	Japanese	Manchoukuoan and Chinese	Total incl. others	Japanese	Manchoukuoan and Chinese	Total incl. others
1931	65,106	242,748	311,511	52,002	179,798	235,539
1932	88,660	239,690	327,887	57,774	230,690	293,421
1933	119,447	346,098	472,280	77,676	252,465	335,978
1934	125,928	404,338	536,665	87,402	232,874	324,934
1935	149,763	267,129	423,901	107,825	198,373	310,996
1936	133,670	235,502	374,695	113,888	186,629	304,682

Table 14. Number of People Leaving and Landing By Nationality at Principal Ports in Manchoukuo

(1936)

Ports	Nationality	Landing		Leaving	
		Male	Female	Male	Female
Harbin	Manchoukuo	66,031	10,167	108,972	18,363
	Japanese	4,355	1,175	4,351	1,251
	Others	194	69	168	57
	Total	70,580	11,411	113,491	19,670
Kiamusze	Manchoukuo	69,319	6,633	51,555	6,190
	Japanese	2,083	490	2,342	997
	Others	75	15	91	11
	Total	71,477	7,138	53,968	6,198
Fuchin	Manchoukuo	63,512	10,461	47,697	7,162
	Japanese	2,320	655	1,577	401
	Others	244	72	158	51
	Total	66,076	11,118	49,432	7,614
Heiho	Manchoukuo	12,209	1,693	15,307	1,432
	Japanese	811	81	537	56
	Others	55	16	35	9
	Total	13,075	1,790	15,879	1,497
Yingkow	Manchoukuo	100,022	9,612	67,239	8,281
	Japanese	197	42	155	53
	Others	45	8	64	25
	Total	100,264	9,662	67,458	8,359
Antung	Manchoukuo	33,626	7,382	28,998	7,704
	Japanese	2,145	947	1,980	947
	Others			1	1
	Total	35,771	8,329	30,979	8,652
Hulutao	Manchoukuo	803	59	252	7
	Japanese	39	13	4	3
	Others				
	Total	842	72	256	10
Total	Manchoukuo	345,522	46,007	320,020	48,138
	Japanese	11,950	3,403	10,946	3,708
	Others	613	180	517	154
	Total	358,085	49,590	331,483	52,000

Laws and Regulations Concerning Navigation.
—On June 21, 1933 the Government enacted and promulgated the River Navigation Law with a view to properly controlling shipping operators on the rivers, lakes and marshes. Further, the Navigation Association regulations were promulgated on March 5, 1934 with the object of controlling the navigation associations organized to improve and develop the navigation on the 1st Sungari, the 2nd Sungari, the Yalu and Liaoho and their tributaries.

As for ships, on June 4, 1932, the Government issued the Ships Survey Provisional Regulation, on March 13, 1933 instructions regarding the

permission of the building of ships, on September 26 of the same year provisional regulations regarding the control of trading ships, on April 13, 1934 issued regulation governing the permission of the import of ships.

As to the superintendence of the crew, on February 3, 1934 the Seamen Superintendence Provisional Regulations which were enacted during the former regime, were revised and on April 16, 1934 provisional regulations relating to the control of the pilots on the Yalu were enacted.

Apart from Dairen in Kwantung Province, there are three ports worthy of mention in Man-

choukuo. They are Yingkow, Antung and Hulutao. As for those ports which are confined to sailing craft, Hsihaikou (Chinhshien) ranks first, followed by Chuang-ho. Both are provided with branches of the Customs House.

Port of Yingkow.—Yingkow is generally known as Newchwang by foreigners. Situated about 12 kilometers from the mouth of the Liaoho, it is the oldest open port in Manchuria. It had developed as the only trading port of Manchuria until Dairen began to show activity as a trading port. It was in 1858 that Yingkow was opened to commerce in accordance with the provisions of the Tientsin Treaty. But its activities as an open port dates back to 1872. It is essentially an export harbor dealing chiefly with Japan and China. Exports and imports passing through this port in 1935 totalled 1,573,149 metric tons. Of this amount, 1,319,673 metric tons represented exports. Chief articles of export consisted of coal, pig-iron, ores, soya beans, and other beans, bean-cake, bean oil, cotton ginned and unginned, timber, oils. The principal imports, which accounted for 254,276 metric tons were wheat flour, timber, sleepers, ores, salt, sugar, cereals, paper. Yingkow consists of the interior and exterior ports. The water depth measures 9 feet at the bar of the mouth, while the deepest part of the port measures 50 feet: 20 feet to 33 feet being the average depth. The administration in respect of harbour and shipping is conducted by the Harbour Office of the Yingkow Customs House. There is a shallow towards the lower stream, so that ships drawing draught of 17 feet and more have no other means but to steam up the river on high tide. When the river runs low, the volume of traffic is reduced, but once it rises high, the water way changes. This is the impediment to the transportation on the stream. During the winter, or from the end of December to March the river is frozen.

Port of Antung.—The port of Antung is located on the left bank of the Yalu River, about 25 miles from the mouth. Thanks to easy communications on land and water, it has attained marvellous development since its opening to trade. Antung now forms the centre of commerce in the neighbouring localities, and a prosperous emporium of commodities. Antung was formerly an obscure resort of junks or sampans, but since it was opened to commerce in March, 1907, it has become a good trading port. It is due largely to the opening of the Antung-Mukden Railway and the completion of the Yalu River that the port has attained the present prosperity. Traffic on the river dates back to the remote past, the commodities transported being mostly

soya beans, Manchurian corns, cocoons of wild silkworms, and Yalu timber. Antung forms the emporium of those commodities. Frequent shifting of waterways, and depth constitute the weak points of the river, so that vessels drawing draught of 10 feet or more cannot go up. Vessels larger than 700 or 800 tons cannot enter Antung. The port is frozen from December to March, and its value diminishes by drifting ice 200 ken long and 100 ken wide. Navigation on the Yalu closes towards the end of October or the beginning of November. While the river is frozen sleds are available for communication across it. The trade of the port for 1934 amounted to 22,480 metric tons in exports and to 197,967 tons in imports. Chief exports consisted of cereals, bean-cake, soya beans, coal, timber, etc., and chief imports of timber, wheat flour, cereals, sugar, etc.

Port of Hulutao.—The port of Hulutao is an ice-free port in Pohai with an extensive hinterland favoured in depth of water, direction of wind, temperature, etc. The harbour construction was started in 1908 at an estimated cost of £800,000 with a five-year-programme. The work was resumed in 1919 at an estimated expenditure of 10,000,000 dollars in silver, but it had to be suspended because of a civil disturbance. It was in January, 1930 that a contract with a Dutch firm was signed, and the harbour constructed was to be resumed again at an estimated expenditure of 6,400,000 dollars in American currency. The Manchurian incident caused the abandonment of the resumed work. After the foundation of Manchoukuo, the work was resumed. Then after again suspending the work for a time, the Government of the new country entrusted the harbour construction to the South Manchuria Railway Company for opening up industry in Jehol, especially with an eye to the shipment of Shinkiu and Peipiao coal. The first stage work was started in June, 1934 by the Railway Construction Bureau of the South Manchuria Railway Company and completed at the end of 1935. The second stage work was completed early in 1937 and on May 1st of the same year it was officially opened by the South Manchuria Railway Company. As a result, it is now provided with facilities for handling 300,000 tons of goods annually. On April 5, 1937 Hulutao was designated as an open port by the State Council. Its importance lies in the fact that it is ideally situated as the gateway to the provinces of Chinchow and Jehol and also in the fact that it has at its rear the rich coal deposits of Fuhsin rivalling those of the world-famous Fushun mines.

Port of Yuki

The port of Yuki is located on the Korean coast of the Japan Sea, 12 miles from the Tumenkiang River. It is one of the ice-free ports of Korea, and has been the anchorage of fishing boats. The port was opened in June, 1921 and further extensions were completed in 1930. The length of the harbour is 200 meters and affords anchorage for two ships of 3,000 members. Owing to the mountainous hinterland, the connection between the port and the city of Yuki is inconvenient. In spite of the above-mentioned handicap the port has a unique advantage in the transportation of lumber. According to prevailing conditions, the port can collect lumber by both rail and by rafts descending the Sungari and the Mutankiang rivers. The port has another advantage in that the rafted lumber may be stored at Lake Ryushi, nearby.

Port of Rashin

The port of Rashin situated at the northern end of Korea, fifteen miles south of Yuki, was a small village with a population of 500 in 1927. The completion of the Hsinking-Tumen railway suddenly increased the importance of this port. At present it has a population of 26,000. Rashin is the best port of Korea and is surrounded by mountains on three sides, and protected by two

small islands lying at the entrance of the port. The depth of the port is from eight to twenty meters in general and eight to ten meters by the piers. When harbour projects now under way are completed Rashin will become an excellent outlet for the cargoes of North Manchuria, particularly from the region of Harbin and for the import of goods to North Manchuria. The construction of the port of Rashin is being projected in three stages. When the entire plan is completed Rashin will have eight piers 300 meters each in length with capacity for handling 9,000,000 tons of cargo annually. The first stage of construction was commenced in 1933 and was to be completed in 1938. In this stage three piers with capacity for handling 3,000,000 tons of cargo annually will be completed.

A railway line linking Yuki and Rashin, 15 miles distant, was completed in the autumn of 1935. The advantage as regards savings in mileage effected by using the Rashin route instead of the Dairen or Vladivostok routes in transportation between Harbin and Tokyo is shown in the following data:

Route	Mileage (Kms)
Harbin-Dairen-Shimonoseki-Tokyo	3,208.9
Harbin-Vladivostok-Tsuruga-Tokyo	2,194.8
Harbin-Rashin-Niigata-Tokyo	1,946.1

References:

- Table Nos.: 1-5 a, 6 b, 7 a, 8 d, 9-10 a, 11 a & c, 12 a, 13 c, 14 a.
 Yey: a—Communications Dept.
 b—Dept. of People's Welfare.
 c—Kwantung Bureau.
 d—Manchuria Aeronautical Co.

CHAPTER XV RAILWAYS

General

The mileage of railways in Manchoukuo at the end of March, 1938 was 9,621 kilometers. Of this length 3,883 kilometers, were built after the establishment of Manchoukuo in 1932.

All of the railways of Manchoukuo are under the supervision of the South Manchuria Railway Company through an organ known as the "Tetsudo Sokyoku" (General Direction of Railways). With good rolling stock and standard gauge tracks the important cities in the country are within easy rail access.

The unification of the railways under one management was greatly facilitated by the purchase of the Chinese Eastern Railway from Soviet Russia in March 1935. By this purchase the state railways was increased by 1,732.4 kilometers and placed at Manchoukuo's command one of the most important lines in the whole territory.

Location of Railways.—The trunk lines of the railways in Manchoukuo form a rough T. This formation was the outcome of Tsarist Russia's far-flung plan to pierce Manchuria for the shortest route to Vladivostok and to find an year round ice free port in the south. The midsection of the T is represented by the city of Harbin, the lateral ends by Manchouli in the west and Suifenhö in the east, while the lower end of the T is represented by Port Arthur.

Around this skeleton a series of tributary lines has been projected in the intervening years since the turn of the present century. In general the growth in branch lines has tended to move

from South Manchuria to North Manchuria and this tendency has been especially pronounced since the establishment of the present government.

From the viewpoint of commercial importance four lines stand out prominently. These are the South Manchuria Railway trunk line between Dairen and Hsinking, the Hsinking-Tumen line, the Tumen-Chiamussu line and the Mukden-Shanhaikwan line. The Dairen-Hsinking line is 701.4 kilometers in length and connects the principal port of the country with the so-called granary of South Manchuria. The larger portion of local farm produce for export and incoming commodities for distribution in the hinterland is transported by this railway.

The Hsinking-Tumen line, 568 kilometers, and the Tumen-Chiamussu line, 444.9 kilometers, which run through the northeastern districts and are linked with the three North Korean ports of Yuki, Seishin and Rashin come next in importance. By these two lines, the majority of farm produce and lumber from North-east Manchuria are taken to the three ports for shipment abroad.

The Mukden-Shanhaikwan railway, 419.6 kilometers, links Manchoukuo with North China via the Peking-Shanhaikwan railway. This line plays the principal rôle in the overland trade between Manchuria and North China. The fact also must not be overlooked that along the line are two good ports, Hulutao, Chinchow Province, and Hopeh, Fengtien Province, both which face the Gulf of Pechihli.

Table 1. General Statistics of Railways in Manchuria

Year Ending March 31:	Length of Line (K.M.)			No. of Passengers (1,000)		Goods Hauled (1,000 M. ton)	
	State	S.M.R.	Total	State	S.M.R.	State	S.M.R.
1934	3,403.0	1,291.1	4,532.1	7,869	11,634	10,432	18,851
1935	4,173.3	1,291.1	5,302.4	8,815	13,780	11,873	21,670
1936	7,207.0	1,291.1	8,336.1	12,531	14,958	12,890	20,384
1937	7,744.7	1,291.1	8,873.8	14,706	15,750	17,146	21,370
1938	8,492.4	1,291.1	9,621.5	18,401	17,520	17,046	25,130

(Continued)	Receipts (¥1,000)				Profit (¥1,000)		Profit Per K.M. (Yen)	
	Passenger		Freight		Profit		Profit	
	State	S.M.R.	State	S.M.R.	State	S.M.R.	State	S.M.R.
1934*	14,711	18,757	36,080	94,263	21,138	75,766	5,274	67,375
1935*	17,852	23,332	50,647	101,489	.. . .	83,181	.. . .	73,677
1936	27,825	22,412	69,937	103,362	20,752	84,030	2,844	74,429
1937	28,678	22,302	72,834	103,165	.. . .	85,301	.. . .	65,555
1938 . . . . .	.. . .	24,878	.. . .	115,558	.. . .	97,096	.. . .	75,426

Note: * Exclusive of North Manchuria Railway.

Table 2. Railways Built Prior to Founding of Manchoukuo in 1932

Line	Length (Kms.)	Opened to Traffic
Koupangtzu-Hopei	91.1	1900
Mukden-Shanhaikwan	419.6	1908
Lienshan-Hulutao	11.9	1920
Chinlingshih-Peipiao	17.9	1924
Chinhsien-Chinlingshih	94.7	1924
Tahushan-Tungliao	367.1	1927
Mukden-Kirin	447.6	1929
Hsinking-Tunhua	338.2	1928
Suchia-Hailun	15.4	1928
Tsitsihar-Taian	127.8	1930
Ningnien-Laha	48.0	1930
Ssuping kai-Tsitsihar	571.4	1920
Sungpu-Machuan kou	7.4	1928
Yushutun-East Anganki	5.0	1929
Hsian-Shaho	67.3	1928
Paichengtzu-Wangyehmiao	82.9	1931
Hsinking-Harbin	242.0	1903
Harbin-Manchouli	934.8	1903
Harbin-Suifenh	546.4	1903
Harbin-Pachu Bund	3.0	1903
Harbin-Taoli Bund	4.0	1903
S.M.R. Lines	1,129.1	
Total	5,572.6	

Table 3. Railways Built Since 1933

Section	Length (Kms.)	Opened to Traffic
Tunhua-Tumen	191.9	Sept. 1933
Taian-Peian	102.6	Dec. 1934
Laha-Noho	38.8	Dec. 1934
Chaoyangchuan-Kaishantun	59.5	Apr. 1935
Sankuoshu-Suchia	15.4	Sept. 1935
Hailun-Peian	106.0	Dec. 1935
Hsingsungpu-Sungpu	4.2	Sept. 1935
Lafa-Pinkiang	271.7	" 1935
Pehan-Heiho	302.9	Nov. 1935
Yehpaishou-Chihfeng	146.8	Dec. 1935
Hsinking-Paichengtzu	332.6	Nov. 1935
Tumen-Linkou	359.7	July 1936
Linkou-Mishan	170.9	" 1936
Chinlingshih-Chengteh	341.4	June 1936
Wangyehmiao-North Hsigan	238.7	July 1936
Sauping kai-Hsian	82.5	Sept. 1936
Mishan-Hulin	166.5	Nov. 1936
Hsinlitun-Ihsien	63.0	Nov. 1937
Chiamussu-Chiamussu Bund	3.0	Jan. 1937
Tunghua-Meihokou	130.1	Oct. 1937
Noho-Meikenr	93.5	July 1937
Poli-Chiamussu	185.3	" 1937
Linkou-Poli	86.2	" 1937
Tunghua-Laoyeh	67.5	April 1938
Suihwa-Kingcheng	54.2	May 1938
Wangching-Suehling	75.0	June 1938
Jehol-Kupehkw	106.3	April 1938
Lungtanshan-Tafengman	22.7	Aug. 1938
Mingshan-Newshintai	13.3	Sept. 1938
Kingcheng-Tiehli	101.9	Oct. 1938
Total	3,883.1	

Railway Investment. — Expenditures for railways in Manchuria in the five years ending 1938

are estimated by Mr. M. Izawa, director of the South Manchuria Railway Company, at roughly ¥800,000,000. This amount is apportioned as follows: ¥400,000,000 for the construction of 4,000 kilometers of new railway lines under the First Railway Construction Program; ¥170,000,000 for the cost of repairing old lines; ¥50,000,000 for the cost of constructing and repairing harbors (the Yuki-Rashin line and the harbor of Hulutao included); ¥160,000,000 for the cost of purchasing the North Manchuria Railway (the former Chinese Eastern Railway); ¥80,000,000 for miscellaneous purposes. This amount comprises about two-thirds of the total sum of Japan's investments in Manchoukuo, war expenditures being excluded.

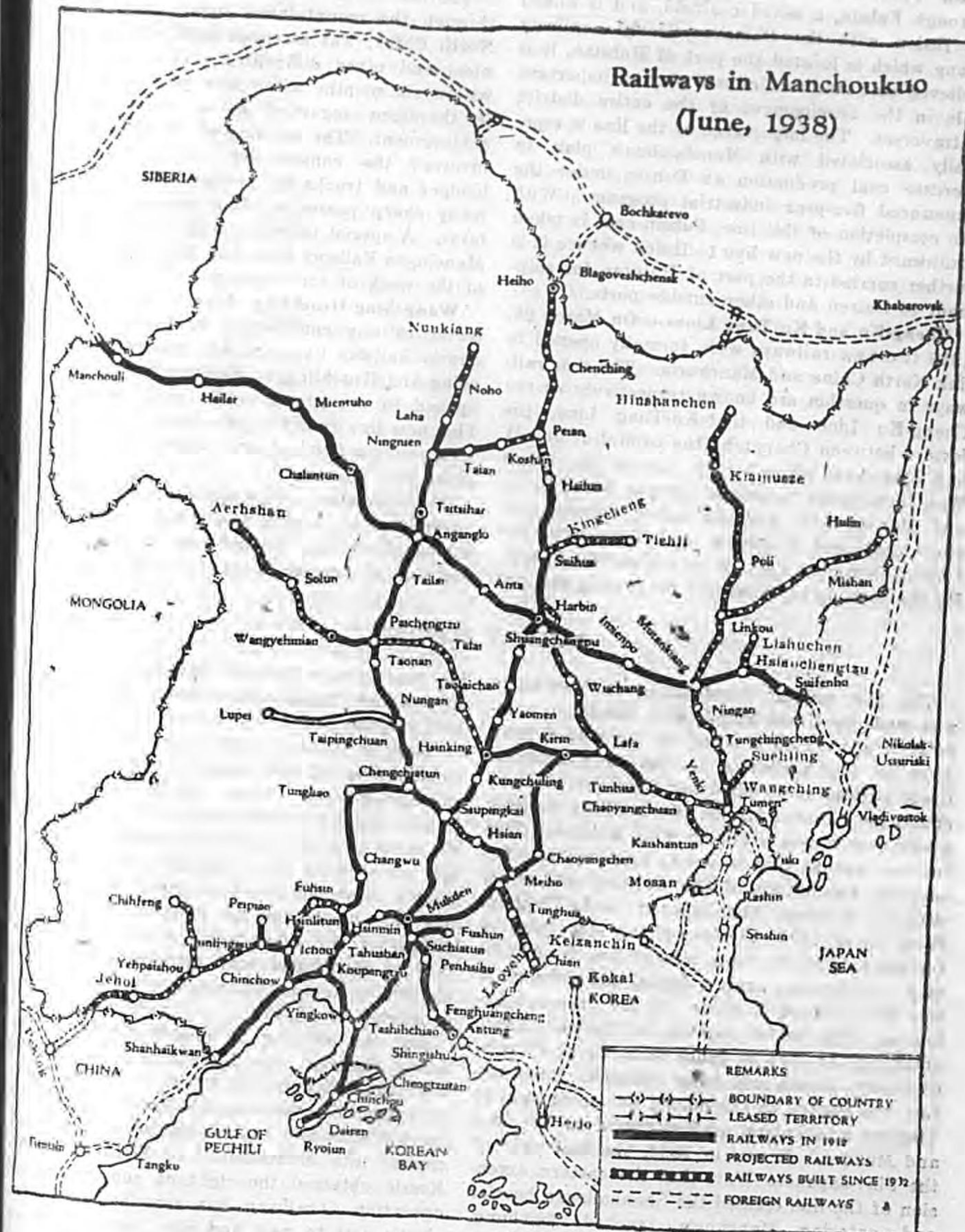
Operation of Railways.—The operation of the railways of Manchoukuo are entrusted to the Tetsudo Sokyoku (General Direction of Railways) which was established in October, 1936 at Mukden, succeeding the Tetsuro Sokyoku. The new organ takes under its control and supervision the operation of all Manchurian railways owned either by the South Manchuria Railway Company or by the Manchoukuo Government and those in North Chosen whose management had already been entrusted by the Korean Government-General to the South Manchuria Railway Company.

New Railway Lines

Several important railway lines were newly built in recent years. Among the more important are the following:

Chiamussu-Linkou Line.—The Chiamussu-Linkou section of the Tumen-Chiamussu Railway which was opened to traffic in January, 1937 furnishes rapid and direct transit for freight and passengers from the Japan Sea to the Lower Sungari. The entire line, from the North Korean coast to the Sungari River, is 580 kilometers, of which the Chiamussu-Linkou section is 196 kilometers. A combined passenger and freight train operates daily both ways on the section, providing second and third class passenger accommodation. The commencement of regular operation through the whole length of the Tumen-Chiamussu Railway is of great commercial, political and strategic significance in the swift development of Northeast Manchuria. The new railway, stretching almost due north, is crossed at Mutankiang by the N. M. R. and it sends forth a spur line at Linkou northeastward to Hulin via Mishan. From Mutankiang to Linkou on the north is 110 kilometers.

Hsinlitun-Ihsien Line.—The Tsinlitun-Ihsien Line was opened to traffic in April, 1937. It is



68.5 kilometers in length and is situated in Chinchow Province. Inasmuch as this line runs through Fuhsin, a noted coalfield, and is linked at Ihsien with the Chinchow-Chengte railway along which is located the port of Hulutao, it is believed that the new line will play an important rôle in the development of the entire district it traverses. The importance of the line is especially associated with Manchoukuo's plan to increase coal production at Fuhsin under the announced five-year industrial program. With the completion of this line, Fuhsin coal is taken southward by the new line to Ihsien whence it is further carried to the port of Hulutao for shipment to Dairen and other outside ports.

Cheng-Ku and Ku-Tung Lines.—On March 28, 1938 two new railways were formally opened to link North China and Manchuria. The new railways in question are known respectively as the Cheng-Ku Line and the Ku-Tung Line, the former between Chengteh (the capital of Jehol) and Kupeikou, close to the line of the Great Wall forming the boundary between North China and Manchoukuo, and the latter between the abovementioned Kupeikou and Tungchow, the former capital of East Hopei Autonomous State. By the opening of these two connecting sections

of railway the capital of Jehol has been brought into direct communication with Peking.

The construction of these railways, especially through the mountainous region of Jehol and North China, was attended with extreme technical and other difficulties. Their completion within six months after surveying was started is therefore regarded as a great technical achievement. The building of the road bed has involved the construction of many tunnels, bridges and trucks up precipitous hillsides and many sharp passes winding among the mountains. A special technical corps from the South Manchuria Railway Company has been in charge of the work of construction.

Wangching-Hsuehling Line.—The 75 kilometer railway constructed by the South Manchuria Railway Company and connecting Wangching and Hsuehling, in Eastern Manchuria, was opened to provisional traffic on June 1, 1938. This new line runs through dense forest regions where only a few had ever set foot up to several years ago.

Transportation of lumber on the line has become brisk. A total of 250,000 metric tons of lumber, including 150,000 tons of logs and 50,000 tons of sleepers, were to be cut in 1938.

RAILWAY HISTORY

The first railway construction in Manchuria was made by Great Britain and Russia, in competition against each other, in the period from 1890 to the beginning of the 20th century. Great Britain established her influence in Manchuria by constructing the North China Railway which now connects Peking with Mukden. This railway was at first a short, light railway for carrying the output of the Kaiping coal mine, situated between Shanhaikwan and Tientsin. From about 1887, Li Hung-chang attempted to further extend this light railway line from military consideration against Japan, and although it was first planned to carry out the proposed extension with native capital, he failed. Then, obtaining the loan of funds from Great Britain, Germany, Russia and other countries, construction was started to extend the line southward to Tientsin and Peking, and eastward to Yingkow and Mukden. It was in 1894, the first year of the Sino-Japanese War, that the eastern extension of the line crossed the Shanhaikwan barrier and entering Manchuria reached Suichung, about 90 kilometers from Shanhaikwan. Thus, this line was the first railway constructed in Manchuria.

As Russia obtained the privilege of construct-

ing the Chinese Eastern Railway in 1896, the British and Chinese Corporation granted a loan of 2,300,000 pounds sterling to the Peking Government in October, 1898, and urged the speedy construction of the eastern extension of the railway of North China. As the result of this British activity confronting the Russian advance, the main line was extended in 1903 to Hsinmintun situated in the important locality on the middle course of the Liao River, and a branch line was constructed to Yingkow on the lower stream of the Liao, which was the only open port of Manchuria until October, 1903. (The connection between Hsinmintun and Mukden was completed in 1907).

But the advance of this Peiching or North China Railway into Manchuria was not made without resistance by Russia. Russia insisted that the entire territory of Manchuria was under her influence and opposed the advance of British capital into Manchuria. In September, 1896, Russia obtained the right of constructing and operating a railway line crossing North Manchuria east to west and also "absolute and exclusive right of administration" in the railway zone. Then in July, 1898, Russia secured a similar right to construct a branch line from a

station (Harbin) on the main line to Port Arthur and Talienswan, and also to Yingkow. The construction of the main line of the Chinese Eastern Railway extending from Manchouli to Pogranichnaya was commenced in May, 1898, and finished in 1901. The southern line, including the Yingkow branch, was completed in 1903. The main and branch lines, comprising 2,500 kilometers, were opened to traffic on July 1, 1903.

It was in the same year that the North China Railway, under British capital, reached Yingkow, and thus South and North Manchuria came to be connected by railways at the Liao River, by the capital of the two great Powers which rivaled each other to gain influence in China.

By the terms of the Portsmouth Treaty of September, 1905, concluded to end the Russo-Japanese War, Japan succeeded to the Russian railway in Manchuria, south of Changchun (Hsinking) totalling about 840 kilometers. Also, according to the agreement attached to the Sino-Japanese Treaty concluded in December, 1905, Japan secured the right of improving the light railway between Antung and Mukden, about 250 kilometers, constructed by the Japanese Army during the Russo-Japanese War. The gauges of these railways were divergent as the line constructed by Russia was of five feet, the portion of the Russian railway occupied by Japan during the war was of the narrow gauge as used in Japan, and the Antung-Mukden light railway was 2 feet six inches wide. The South Manchuria Railway Company changed these latter lines to the international wide gauge of 4 feet 8½ inches, by May, 1908. The expenditure required for this improvement was defrayed by debentures floated in England, amounting to more than ¥42,000,000.

Fengshan Railway.—The Fengshan railway comprises the section between Mukden and Shanhaikwan of the Peiping-Mukden line. The railway is the oldest in Manchoukuo and its construction was started in 1893 as the extension of the line between Peiping and Shanhaikwan. The section from Shanhaikwan to Hopei was opened to traffic in 1899, that from Koupangtzu to Hsinmin in 1903. During the Russo-Japanese war the Japanese built a light railway connecting Hsinmin with Mukden and in 1908 the Chinese government purchased it at the price of ¥1,660,000 by incurring a loan from the Japanese government. The line was later reconstructed to the standard gauge.

The lines dividing out from the foregoing railway were constructed as follows: Chinchou-Peipiao line in 1924; Hulutao line in 1911,

Tahushan-Tungliao line in 1927. Later the administration of the Three Eastern Provinces connected the Tahushan-Tungliao line with the Ssu-Tao, Tao-Ang and the Tsi-Ko lines with the object of bringing pressure to bear on the South Manchuria Railway. The line between Shanhaikwan and Hsinmin, and the Yingkow branch line were constructed with loans incurred by the Chinese government from the British & Chinese Corporation and the Hongkong & Shanghai Banking Corporation amounting to £2,300,000, which is known as the Peking-Newchwang loan. The British interests had attempted to take control of the railway by negotiating with the Chinese government but through objections from the administration of the Three Eastern Provinces the plan failed to materialize. Since the independence of Manchoukuo the government has been refunding the said loan, the first payment on which was made in September 1932 amounting to £65,850.

Feng-Ki Railway.—The Feng-Ki railway connects Fengtien (Mukden) with Kirin by way of Chaoyangchen, and consists of what were formerly known as the Shen-Hai (Shenyang-Chaoyangchen) and the Ki-Hai (Kirin-Chaoyangchen) railways. The section from Shenyang to Chaoyangchen was constructed wholly with Chinese capital through the Fenghai Railway Company capitalized at 20,000,000 Fengtien tayang. Construction of the line was started in July, 1925 and completed in 3 years, 2 months.

In 1928 the line was purchased by the Chinese government and made into a government railway, the name being changed simultaneously to the Shen-Hai Railway Company. The Manchurian Incident disrupted business on the line and in March, 1932 it was brought under the control of the Communications Department of the Manchoukuo government.

The section from Kirin to Chaoyangchen was planned in 1926 and in November of the same year a railway office was established and a sum of 12,000,000 Kirin-tayang was allotted as constructional expenses. Surveying of the line was started in March 1927 and actual construction begun in June of the same year. Due to lack of funds and building materials constructional progress on the line was slow and it was only in November 1928 that the section between Chaoyangchen and Panshih was completed. In May 1929 the rest of the line to Kirin was completed. From a technical point of view the construction of the line was a violation of the privilege granted Japan by the protocols attached to the Treaty of Peking signed on

December 22, 1905, Paragraph 3 of which reads: "The Chinese Government engage, for the purpose of protecting the interest of the South Manchuria Railway, not to construct, prior to the recovery by them of the said railway, any main line in the neighbourhood of and parallel to that railway, or any branch line which might be prejudicial to the interest of the abovementioned railway." With the founding of Manchoukuo the line was taken over by the new government.

King-Tu Railway.—The King-Tu railway consists of the three principal lines, the Ki-Chang, connecting Kirin with Hsinking, the Ki-Tun, connecting Kirin with Tunhua and the Tun-Tu, connecting Tunhua with Tumen. The Ki-Chang railway was to have been constructed as a branch line of the Chinese Eastern Railway by virtue of the Provisional Agreement signed between the Chinese Eastern Railway Company and the Chinese Government in September 1902. The outbreak of the Russo-Japanese war (1904-05), however, automatically dissolved the construction of the line. Following the war Japan acquired the right of advancing one-half of the constructional cost of the railway by virtue of the protocol attached to the Treaty of Peking. This agreement was later revised by the Hsin-Feng and Ki-Chang Railways Agreement whereby one-half of the constructional expenses were defrayed by the South Manchuria Railway Company. In August 1909 the Ki-Chang Railway Loan Contract was signed whereby the South Manchuria Railway Company advanced a loan of ¥2,150,000 to the Communications Department of the Chinese Government. Accordingly, in 1910 construction was started on the line, and completed in October, 1912. In 1917 the loan contract was revised. The amount was changed to ¥6,150,000 and the period of redemption to 30 years, while the South Manchuria Railway was given the privilege of supervising the line.

The Ki-Tun Railway was established following the agreement signed between the South Manchuria Railway and the Communications Department of the Chinese Government in 1925. In February 1926 a construction office was established and actual work on the line was started in June of the same year. The line was completed in October, 1928. Until 1931 when the Ki-Tun and Ki-Chang railways were merged the lines had been operating independently in spite of an agreement calling for their joint operation. This hitch in operation was caused, according to the Chinese Government, by the high constructional expenses of the Ki-Tun railway which amounted to ¥2,400,000. At present both lines

are under the supervision of the South Manchuria Railway.

The Tun-Tu Railway was completed in April 1933, the construction having been started in May, 1932. The line connects Tunhua and Tumen, as stated above, and its importance is greatly due to its medium as a connecting link between North Chosen and Hsinking. Plans for this line were formulated some twenty years ago. The line came under the control of the General Direction of Manchoukuo State Railways in September, 1933 and simultaneously the three lines, namely, the Ki-Chang, Ki-Tun and Tun-Tu were merged and called the King-Tu Railway.

Ping-Tsi Railway.—The Ping-Tsi railway connects Ssuningkai with Sanchienfang (Anganki), by way of Taonan and consists of what were formerly known as the Ssu-Tao (Ssuningkai-Taonan) and the Tao-Ang (Taonan-Anganki) lines. Construction of the section between Ssuningkai and Taonan was divided into three stages, namely, the first stage from Ssuningkai to Chengchiatun, the second from Chengchiatun to Tungliao and the third from Chengchiatun to Taonan.

The line between Ssuningkai and Chengchiatun was started in April, 1917 the funds for its construction being met by a loan made to the Chinese Government by the Yokohama Specie Bank in December, 1915. The line was completed in December, 1917.

The negotiations for constructing the line from Chengchiatun to Tungliao and that from Chengchiatun to Taonan were carried out in September 1919 between the Chinese Government and the South Manchuria Railway company. Construction on the Chengchiatun-Tungliao or Cheng-Tu line was begun in April 1921 and completed in January 1922. Construction on the Chengchiatun-Taonan or Cheng-Tao line was begun in September 1921 and completed in November 1923. The loan advanced by the Yokohama Specie Bank which was ¥5,000,000 has since been refunded by the Chinese Government. The aggregate loan advanced by the South Manchuria Railway for the same purpose to the Chinese Government amounted to ¥32,000,000, including ¥10,000,000 of the first issue. The loans remained unrefunded until the outbreak of the Manchurian Incident. In December 1931 the Ssu-Tao Railway recognized its debt amounting to ¥49,000,000, following the approval obtained from the Fengtien Provincial Government and the new Northeastern Communications Committee, and entrusted the super-

vision of the entire line to the South Manchuria Railway Company.

The section from Taonan to Sanchienfang (Anganki) was completed in July 1926. Russia's attempt to obtain control of construction rights of the railway through the medium of Belgian interests was frustrated in 1913. In 1924 the administration of the Three Eastern Provinces and the South Manchuria Railway Company reached an agreement whereby the latter company obtained the rights for constructing the line at a cost of ¥12,920,000. The loans for the railway remained unrefunded by the reigning Chang family until the outbreak of the Manchurian Incident.

Tao-So Railway.—The Tao-So railway connects Taonan and Huiyanchen. Plans for constructing the railway were started in 1926 but actual construction work was begun in 1928. The object for the line was purely a personal one of Chang Tso-lin in establishing facilities for transporting his troops in his retreat from Peking in June 1928. Construction on the line was commenced in April 1929 and completed in February 1931. The extension of the line from Huiyanchen to Solun was completed in 1935.

Tsi-Pei Railway.—The Tsi-Pei Railway consists of two principal lines, one connecting Sanchienfang with Peian via Tsitsihar, and the other connecting Ningnien with Noho. The line between Sanchienfang and Peian was first considered as an extension of the Tao-Ang railway. Objection to this project was expressed by the Chinese Eastern Railways as violating treaty rights forbidding the crossing of the C. E. R. by other lines. As a result the Chinese authorities cut off the line at Sanchienfang (formerly Anganki) temporary but in July 1928 upon reaching a compromise with the C. E. R. the Chinese authorities created a railway bridge over the C. E. R. lines and extended the line in December 1928 to Tsitsihar. The line between Tsitsihar and Koshan (Tsi-Ko) was begun in June 1928 but due to lack of funds only a part of the line, that extending from Tsitsihar to Taian, was completed by March 1930. Since the Manchurian Incident construction on the line has continued and the stretch between Taian and Koshan and to Peian was completed in December 1932. In December 1933 the two principal lines were merged and called the Tsi-Pei Railway.

Pin-Pei Railway.—The Pin-Pei railway consists of two lines, one running from Hailun to Harbin and the other from Hailun to Peian. Plans for constructing the section from Harbin to

Hailun were under consideration since the Russo-Japanese War and a Construction Office was established in 1911. Due to the revolution in China in that year work on the line was delayed. In that year the Chinese Government gained the approval of obtaining a loan from the Russo-Asiatic Bank for the construction of the line not only to Hailun but to Heiho on the Russo-Manchurian border. The construction of the line failed to materialize, however, due to objections raised by China on mutual supervision of the line and due to the Russian Revolution. In 1925 Wu Chun-sheng, Governor of Heilungkiang Province, proposed the building of the section between Harbin and Hailun and established an organ known as the Hu-Hai Railway Company, capitalized at 10,000,000 yuan. Construction of the line was actually begun in 1926 and completed in December 1928.

The stretch between Hailun and Peian consists of a section of the Hai-Ko Railway which connects Hailun and Koshan. The completion of the Hai-Ko line was effected in December, 1933. Since December of the same year the Hu-Hai railway and the line between Hailun and Peian have been incorporated in the Pin-Pei Railway. The importance of the Pin-Pei Railway is due largely to its connection with the Harbin-Lafa line.

Fusan-Peking Through Train Service

Through train service between the port of Fusan, Chosen and Peking was inaugurated on October 1, 1938. As a result the two points can be negotiated in thirty-eight hours. The express leaving Fusan at 8:15 a.m. arrives at Peking the following evening at 10:10 p.m.

Fusan-Hsinking Through Train Service

The through train service connecting Fusan and Hsinking brings the two points within twenty-seven hours of each other. The express leaving Fusan at 6:56 p.m. arrives at Hsinking the following evening at 9:35 p.m. Keijo is reached enroute at 2:35 a.m. of the second day, Antung at 11:15 a.m., and Mukden at 4:55 p.m.

Freight Traffic

Freight traffic on the railways of Manchoukuo have been brisk in recent years. In the year ending March 31, 1938 a total of 40,072,000 metric tons of goods were hauled. The trend of railway freight traffic in recent years is as follows:

Table 4. Goods Hauled by Kinds
(In 1,000 metric tons)

Year ending March 31:	Agricultural products	Live-stock	Forestry products	Aquatic products	Mineral products	Industrial products	Other goods	Business goods	Office goods	Total
1931	8,033	110	1,430	206	10,578	2,034	3,472	21,492	4,371	25,863
1932	10,510	75	970	178	9,605	2,045	2,801	22,635	3,549	26,184
1933	10,045	112	857	307	9,117	3,613	3,533	25,338	2,244	27,583
1934	7,771	98	1,557	316	12,050	4,832	5,129	27,922	3,831	31,753
1935	8,694	91	2,569	362	17,740	4,264	2,653	29,554	6,820	36,374
1936	7,735	126	2,217	416	17,847	5,109	2,486	29,280	6,657	35,937
1937*	6,103	147	1,942	399	13,516	5,372	2,944	27,556	7,546	36,660
1938*	6,484	155	2,529	598	13,388	6,415	.....	.....	.....	40,072

Note: * Excluding North Chosen Line.

Table 5. Staple Commodities Hauled
(In 1,000 metric tons)

Year Ending March 31:	Soya-beans	Other beans	Kar-liang	Maize	Mil-let	Pea-nut	Bean-cake	Bean-oil	Coal	Vege-tables	Cot-tables	Timber	Sleeper and pile	Salt	Ore
1931	4,927	500	143	381	81	739	103	8,472	107	30	841	290	590		
1932	7,435	723	133	300	73	851	91	7,856	80	25	586	236	477		
1933	7,543	550	161	329	63	566	30	7,842	159	43	670	301	492		
1934	5,102	462	254	307	117	601	29	9,746	235	60	1,222	306	652		
1935	5,427	239	537	365	298	176	502	11,183	257	70	1,214	1,012	349	520	
1936	4,407	289	508	210	288	122	428	10,820	276	70	999	481	328	1,064	
1937	2,676	198	513	239	356	110	235	11,217	227	85	1,571	828	294	1,504	
1938	2,640	...	586	417	289	...	321	10,718	291	...	2,214	...	450	2,001	

(Continue)

	Stone & gravel	Mineral oil	Cotton yarn & cloth	Gunny bag	Iron & copper	Cement	Lime	*Sulphate of ammonia & fertilizer	Brick	Paper	Cokes	Wheat flour	Sugar
1931	120	122	90	123	382	304	23	6	48	32	343	78	
1932	67	94	68	144	414	180	11	46	59	27	39	67	
1933	463	122	94	153	727	213	87	66	54	49	462	72	
1934	935	242	128	121	1,115	685	88	86	53	89	511	84	
1935	4,065	197	143	144	1,346	540	148	181	97	57	78	567	89
1936	1,712	244	11	138	1,352	549	160	114	112	67	100	532	104
1937	1,331	283	126	128	1,248	649	145	113	102	70	139	486	127
1938	...	...	...	...	...	680	...	...	...	...	...	507	133

Note: † Excluding North Chosen Line.
* S. M. R. Line only.

Freight Rates

The South Manchuria Railway Company announced on July 1, 1938 a wholesale revision of freight rates on all lines (the S. M. R. lines, the Manchoukuo State Railways and the North Chosen Railways) under the operation of the Company to be effective commencing October 1, 1938. The main points of the revision are as follows:

- (1) The system of diminishing rates for longer distances and uniform rates will be enforced on all lines in Manchuria.
- (2) Preferential rates will be set for cereals, livestock, lumber, coal and other minerals, which are vitally related to Manchoukuo's Five-Year Industrial Plan, showing further reductions for longer distances.

(3) Goods to be transported in small lots and by carload on Manchoukuo State Railways and S. M. R. lines, which were divided into six grades each, will be divided into three grades and those by carload into four grades to simplify classification.

(4) For shipments containing more than 2,000 kilogrammes of one product a special 25 per cent. reduction will be made.

(5) The scope of goods coming under the classification of daily necessities for which special rates are prescribed will be enlarged, while the special rates for daily necessities already in force on certain lines will be extended to other lines.

(6) For the better utilization of the three

North Korean ports, Rashin, Seishin and Yuki, uniform rates will be enforced for goods shipped between any of these ports and stations on Manchoukuo State Railways and S. M. R. lines.

With the projected revision of railway freight rates in Manchuria, the burden on shippers was expected to be lightened to the amount of ¥10,000,000 in 1938 and ¥18,000,000 in 1939, estimating that the amount of goods in 1939 will be about the same as in 1938. The estimated decrease in revenue from various products is as follows:

	1938 (¥1,000)	1939 (¥1,000)
Agricultural produce	5,380	7,492
Timber, wood and manufactures thereof	537	1,533
Mineral products	2,761	5,877
Live-stock	273	512
Industrial products, etc.	1,110	2,518
Total	10,061	17,932

Soya Bean Transportation Costs.—The following statistics show the cost of soya bean transportation from various localities in Manchuria to Rashin and Dairen:

Table 6. Soya-bean Freight Rate
(1937)

(In yen per one metric ton)

(A) F. O. B. Rashin

	Railway Charge	Freight Charge on Sungari River	Pierage	Interest	Total
Fukin	20.180	6.458	5.620	0.845	33.103
Chiamussu	20.180	—	5.620	0.195	25.995
Sanhsi	—	—	5.620	0.195	24.125
Sensing	18.310	—	—	—	—
Fangcheng	—	—	5.620	0.195	24.125
Peli	—	—	—	—	—
Harbin	16.690	—	5.620	0.195	22.505
Chuchan	19.435	—	5.620	0.195	25.250
Shuanghochon	15.930	—	5.620	0.195	21.745
Taian	17.320	—	5.620	0.195	23.135
Peian	28.250	—	5.620	0.195	34.065
Angangki	26.520	—	5.620	0.195	32.335
	25.630	—	5.620	0.195	21.445

(B) F. O. B. Dairen

	Railway Charge	Freight Charge on Sungari River	Pierage	Interest	Total
Fukin	20.960	10.688	4.020	0.845	36.513
Chiamussu	20.960	8.530	4.020	0.845	34.355
Sanhsi	20.960	7.291	4.020	0.845	33.116
Sensing	—	—	—	—	—
Fangcheng	20.960	6.825	4.020	0.845	32.650
Peli	—	—	—	—	—
Harbin	20.960	—	4.020	0.195	25.175
Chuchan	17.270	—	4.020	0.195	21.485
Shuanghochon	18.180	—	4.020	0.195	22.395
Taian	30.010	—	4.020	0.195	34.225
Peian	29.150	—	4.020	0.195	33.725
Angangki	26.720	—	4.020	0.195	30.935

THE SOUTH MANCHURIA RAILWAY COMPANY

The South Manchuria Railway Company has played an important role in the transportation service of Manchuria during the last three decades.

The railway system that the Company first took over from the Japanese Government in April, 1907, was rather in a depleted state. During the Russo-Japanese War, most of the rolling stock was withdrawn by the Russians, or destroyed in their retreat, and the bridges

were blown up. With the advance of the Japanese armies to the north, the track was changed from the five-foot Russian gauge to the narrow gauge used by the railways in Japan so that Japanese rolling stock might be more readily utilized in the Manchurian campaign. Before the Company came into existence, however, the standard gauge of 4 ft. 8½ inches had been already adopted in Korea and China. In order to serve international trade on the Asiatic con-

inent more efficiently, the South Manchuria Railway Company promptly adopted the standard gauge and proceeded to lay a double track as ordered by the Government.

In adopting the standard gauge, it was necessary to import rails and rolling stock from abroad so that the work of reconstruction might be quickly carried out without much interruption of traffic. Immediately after the railways were transferred from Government control on April 1, 1907, a comprehensive programme of reconstruction was started. The work of widening the gauge on the Dairen-Port Arthur branch line, (31.6 miles) was completed by December 1, 1907; that on the Dairen-Changchun (present Hsinking) via Mukden main line, (438.5 miles), by April 30, 1908, and that on two other branch lines, one to Yingkou and the other to Fushun Mine by May 30. The doubling of the track between Dairen and Suchiatun (near Mukden), a distance of 283 1/3 miles, was begun at the same time and was completed on October 27, 1909. The doubling of the track between Suchiatun and Mukden, a distance of ten miles, begun in June, 1915, was completed in November, 1918. The work on the line between Mukden and Hsinking was begun in 1919. The original Russian 65 lb. rails were first replaced

with 80 lb. and later with 100 lb. rails. The roadbed being constantly improved, the steepest grade on the trunk line between Dairen and Hsinking is now only one per cent., while the shortest radius of any curve is 15 chains.

The line between Antung and Mukden was originally built as a light military railway by the Japanese during the Russo-Japanese War. As already stated, Japan obtained from China the right to reconstruct the railway on standard gauge and operate and maintain the same for international railway traffic. When this railway was transferred to the charge of the Company, it was decided to substitute the standard gauge within three years. But, owing to the controversy which arose on the subject between China and Japan, and to the line traversing mountainous regions, the reconstruction work was delayed until August 7, 1909, when the tunneling work at Fuchinling was begun. The whole work, including 24 tunnels, 205 bridges, and 213 culverts, was completed in two years and three months, and on November 1, 1911, the opening of this 161-mile railway was held with appropriate ceremonies. The cost amounted to about 25,000,000 yen.

The lines owned and operated by the South Manchuria Railway Company are as follows:—

Table 6. South Manchuria Railway Lines
(At end of Aug., 1938)

Lines	Distance	Working mileage (kilometers)	Gauge (Feet)	No. of stations
Dairen Line	Dairen-Hsinking	704.3	4.85	74
Antung "	Antung-Suchiatun	260.2	4.85	27
Port Arthur "	Choushuitzu-Port Arthur	50.8	4.85	5
Fushun "	Suchiatun-Fushun	52.9	4.85	6
Yingkow "	Tashihchiao-Yingkow	22.4	4.85	1
Yentai Colliery branch line	Yentai-coal mines	15.6	4.85	—
Other branch lines		22.9	4.85	2
Total		1,129.1		116

References:

- Table Nos.: 1-5 a, 6-7 b.
Key: a—Communications Department, Manchoukuo.
b—S. M. R. Co.

CHAPTER XVI
AGRICULTURE

The arable area and farming population are listed below:—

Table 1. Arable Land & Farming Population (1937)
(Excluding Hsingan Provinces)

	1,000 Hectares
Total Area	87,647
Arable land	32,735
% to total area	37.6%
Cultivated area	14,960
% to total area	17.6%
Unarable land	54,911
% to total area	62.4%
Farming Population (1,000)	23,667
% to total population	84.7%

(Four Hsingan Provinces)

Total Area	10,675
Cultivated land	365
Pasture land	913
Both mixed	548
Forest zone	4,924
Unarable land	3,924

Manchoukuo is one of the large agricultural countries of the world. About 32,735,000 hectares, or approximately 37 per cent of the entire country is arable. The area at present under cultivation amounts to roughly 15,000,000 hectares, which works out at about 45.7 per cent of the arable area of the entire country. How favorably Manchoukuo is placed compared with Japan as an agricultural country may be gleaned from the fact that land under tillage in Japan is only some 16 per cent of the area of the entire realm.

Position of Agriculture in Foreign Trade.—Manchoukuo's exports consist in the main of agricultural products. In 1935 the export of agricultural products amounted to 256 million yuan representing 65.4 per cent of country's total exports. In 1936 the value rose to 372.4 million yuan and the ratio to total exports to 70.4 per cent.

Table 2. Details of Arable Land (1936)
(In 1,000 hectares)

Name of Province	Total Area	Unarable land		Arable land		Cultivated land		Not yet cultivated land	
		Area	% to total	Area	% to total	Area	% to total	Area	% to total
Kirin	8,991	4,512	50.2	4,479	49.8	3,040	33.8	1,440	16.0
Lungkiang	12,564	4,248	89.9	8,316	66.2	2,101	16.7	6,215	49.5
Heiho	10,981	9,876	89.9	1,106	10.1	54	0.5	4,525	9.6
Sa. kiang	10,754	5,477	50.9	5,277	49.1	752	7.0	4,525	42.1
Pinkiang	14,343	7,857	54.8	6,485	45.2	3,530	24.6	2,956	20.6
Mutankiang									
Chientao	2,939	2,522	85.8	417	14.2	166	5.6	251	8.6
Antung	4,823	4,246	88.0	577	12.0	418	8.7	159	3.3
Tunghwa									
Fengtien	8,555	4,817	56.3	3,737	43.7	2,919	34.1	818	9.6
Chinchow	3,946	2,681	67.9	1,265	32.1	1,154	29.3	111	2.8
Jehol	9,659	8,640	89.4	1,019	10.6	782	8.1	237	2.5
Harbin Special Municipality	93	36	38.8	57	61.2	45	48.6	12	12.6
Total	87,647	54,912	62.7	32,736	37.3	14,960	17.1	14,960	20.2

Note: Excluding Hsingan Provinces.

STRUCTURE OF AGRICULTURAL ECONOMY

In Manchoukuo, the people residing in the rural districts represent nearly 90 per cent of the entire population. 85 per cent of this rural population are actually engaged in agriculture. These farming people may be divided into two

classes, one representing those owning land and the other those not owning land. The latter class is composed of farm-labourers and tenant farmers.

Farm-laborers

Any authentic figures are unavailable in regard to the precise number of farm-laborers in Manchuria, but official statistics recently taken of the 16,000 farming families in the prefecture of Pulantien, the Kwantung Leased Territory brought about the following figure:

2,093 (13.1 per cent.) families which do not engage in agriculture on their own account and whose male members are employed by other farmers mostly on a yearly contract.

796 (6.4 per cent.) families which engage in agriculture on their own account but whose male members are employed by others by the day or by the year as farm-hands.

In the central region of Manchuria where the population has nearly reached its saturation-point, farm labor is furnished mainly by those persons who have been reduced to dire poverty by class strife. In newly cultivated or sparsely populated districts, Chinese immigrating in large numbers annually from North China are the chief source of farm labor.

These farm-laborers are usually hired either by the year or by the month or for shorter terms. It need scarcely be said that the rate of their wages is determined by the proportion of the demand for, and supply of farm labor as well as by their respective skill and ages.

The average wage-rates for farm-laborers employed for terms of between 10 months and a year range from 80 to 85 yuan with board for 1st-class ones, 70 to 75 yuan for 2nd-class ones and 50 to 60 for 3rd-class ones. What the worker hired by the month gets from his employer varies from 7 to 15 yuan.

All these farm-laborers make it a rule to live in their employers' houses and are huddled together in the night in small rooms placed at their disposal. As regards farm-laborers employed for shorter terms than a month, their wages are freely determined by landlords and sometimes by priests wielding influence in the villages where they are employed.

Naturally, there are constant fluctuations in their wages, the highest ranging from 0.6 to 0.7 yuan and the lowest hovering in the neighborhood of only 0.15 yuan. The average rates are between 0.35 and 0.40 yuan. Speaking generally, the rates are a little higher in North Manchuria than in South Manchuria.

The standard of living of these farm-laborers on the whole is extremely low. More appropriately, they may be regarded as what is generally termed the "submerged tenth." The cheapness of wages is not the sole menace to them:

they are constantly exposed to a far greater menace, that is, unemployment. This explains why a great many jobless farm-laborers roam about in the rural districts.

Noteworthy is the fact that their wages of late are evidently on the rise. Farm wages are related vitally to population, taxation and prices of farm produce, but land-rents are another factor that must not be lost sight of as bearing fatefully on farm labor. For instance, the prices of arable land along the Heilungkiang river have greatly soared in recent years. This has brought about a corresponding rise in land rents.

Tenant-farmers

In Fengtien province, tenant-farmers are estimated to occupy between 29.5 and 31 per cent. of the entire number of provincial people engaged in agriculture, in Kirin province between 28.4 and 37 and in Heilungkiang province between 25.9 and 28.

It then could be said with some degree of certainty that the number of tenant-farmers represents about 30 per cent. of the entire farming population of Manchoukuo. As to the total acreage of land under the cultivation of tenant-farmers, any reliable statistical data are lacking.

There are a handful of tenant-farmers who lease large tracts of land to be cultivated on quite a large scale by employing farm-laborers or to be let out again to smaller tenant-farmers, but the majority of the Manchurian tenant-farmers can barely manage to earn a living by cultivating small strips of arable land they lease from landlords.

There are also another class of tenant-farmers who at the same time are small holders. They are farmers who own too narrow strips of arable land to ensure their livelihood and therefore have to lease other's land for cultivation. Naturally, their living standard differs little from that of pure tenant-farmers. In Fengtien Province, the number of tenant-farmers of this class is estimated approximately to represent between 19 and 27.9 per cent. of all the provincial farming people, in Kirin province between 17 and 23.2 and in Heilungkiang Province between 17.4 and 18. It appears likely that these specific tenant-farmers represent nearly 20 per cent. of the entire Manchoukuo farming population.

The deduction is that approximately one half of the Manchurian farmers must depend more or less for their livelihood upon the cultivation of land on lease. In consideration of this salient fact, it may be plain that the tenancy system

plays an important part in the agricultural structure of the new Empire.

Further, many of the smaller tenant-farmers are in such straits that they have often to borrow money from their landlords. It behooves them, therefore, to offer almost all they can obtain from the farms under their cultivation to their landlords for refundment of such loans as well as for payment of land-rents. In short they are reduced to the status of serfs.

There are others who, being unable to subsist on what they have gained from their farms, engage in traffic business with their horses and carts when the farming season is over. The tenant-farmers who can own horses and carts for farming purposes are quite limited: they must cultivate at least 10 tienti of land (about 15 acres).

The tenant-farmers who cultivate smaller lots can ill afford to possess horses and carts and therefore must work as coolies or seek some sources of income to offset their budgetary deficits. For instance, a number of them during the cold season make it a rule to conduct petty lines of business with what they have obtained from the marketing of their farm products.

In the newly cultivated districts in North Manchuria and Outer Mongolia, the tenant-farmers are usually provided by their landlords with boarding, seeds, cattle and, in some cases, with all the materials and implements that are necessary for agriculture. In consequence, land-rents are exorbitantly high, and the tenants are entitled to less than 30 per cent. of the proceeds from their farms.

Seen from this angle, the social standing of the Manchurian tenant-farmer is steadily declining. Nowadays, land-rents evidently are not land-rents in the strict sense, they being figured out so as to devolve upon the tenant a considerable portion of the burdens that should be borne by the landlords.

Further, land-rents are sure to rise in proportion to the prices of land, thereby adding further to the destitution under whose fetters the smaller tenant-farmers are groaning helplessly. Some of them may save some money from their intense toil with which to purchase narrow strips of land.

But it is too often the case with them that they soon find it necessary to borrow funds or buy cereals on credit from others for the management of the land purchased or for the sustenance of their livelihood. When, however, some unforeseeable misfortune falls in their way, they will be made unable to repay the loans. The seizure by their creditors of the land

mortgaged is a foregone conclusion. In this manner, the land they bought at high prices is extricated easily from their hands at far lower prices.

Landed Farmers

The percentage of landed farmers to the farmers of other classes is put at between 42.5 and 50 in Fengtien province, 46 and 48.4 in Kirin province and 54 and 56.7 in Heilungkiang province, the average being in the neighborhood of 50.

The yeomanry as referred to in the foregoing include farmers who neither let to others nor lease from others any land and also those who let their surplus land to others. Naturally, the composition of this class is much more complicated than that of the tenant-farmers' class. But because they cultivate farms of their own, they are entirely free from the burden of land-rents and are better off than are the tenant-farmers in this point. Attention must be directed to the fact, however, that they are subjected to far heavier burdens of taxation than are the landlords and the tenant-farmers.

It is pertinent here to make a survey of the Manchurian farming population rated as big, middle and small farmers according to the acreage of land under their cultivation. This classification is possible when the middle-class farmer is defined.

In those districts of South Manchuria where the population is nearing its saturation-point, the farmer of the middle class is generally defined as a yeoman who cultivates between 10 and 20 tienti of land and, in the sparsely populated districts of North Manchuria, between 20 and 30.

That the middle-class farmer is defined on different basis in South and North Manchuria is due to the fact that in the latter region, farming is conducted along ruder lines than in the former.

On the whole the middle-class farmers, sandwiched between the bigger and smaller ones, are comparatively well off. Their incomes, generally speaking, are more than sufficient to support their families, enabling them to have, if they would, some hoardings. In a rich year, they have considerable surplus income to be added to their operating funds. Under such circumstances, chances often come along in their way to accumulate a greater wealth.

Under the blackguard administration of the ousted Chinese warlord, the middle-class farmers were the target of exaction and extortion, in consequence of which they had to borrow funds at absurd rates only to ruin themselves.

The middle-class farmers of Manchuria on the whole are too active to remain idle and make a living within the bounds of their resources. When the farming season is over, they make it a rule to loan their horses and vehicles to others in return for fixed amounts of money or labor as a means to augment their income. Otherwise, they utilize them in person in connection with their secondary occupations.

Because they form the backbone of their villages, they are important rate-payers. Further, they are obliged to bear the large portion of expenses incidental to the upkeep of their village communities. When there occur famine or some other unexpected incidents that may involve considerable disbursements on the part of their villages, they have to run into debts.

Their financial standing is such that they have credit with money-lenders but once they contract usurious debts, they can hardly free themselves from the shackles of such debts. In this sense, their position somewhat lacks solidarity.

In Manchuria, farming is not along modern mechanical lines seen among the bigger farmers, most of whom still adhere to old methods of agriculture. Usually, their farms are cared for by farm-laborers in their employ. Further, they make a point of lending their surplus cash funds, food-stuff, cattle and farm implements to the smaller peasants at a usurious rate of interest. Thus, they hold sway over the smaller peasants.

Of course, they let the farms in their possession to the smaller peasants or lease farms from the greater landowners which are to be sub-leased to the smaller farmers. They also are engaged in different lines of business including notably foodstuffs and sundry goods for profit-making purposes.

Landlords

Some of the bigger landlords are descendants of peers and high Government officials of the old Ching dynasty and, therefore, the estates they are entitled to are traditional legacies. Others are the wealthy civil or military officials or urban merchants who have bought estates in rural districts as a sure means of investment. Hence, they for the most part are absentees.

Likewise, the estates of the smaller landlords are mostly those handed down from their ancestors. Partition of an inheritance is in vogue throughout Manchuria. When, therefore, a great landlord is dead, his estate is divided among his offsprings, thereby creating many small landowners at a time.

On the other hand, there are a number of wealthy urban merchants who are in possession

of estate in the rural regions. For the tenant-farmer or free farm-laborer to rise to the status of a landowner is an exceedingly difficult proposition.

Generally speaking, the smaller landowners are dominant in the districts where the population has reached or is about to reach its saturation-point, while sparsely populated areas are mostly under the control of the bigger landlords. In other words, the system of partitioning an inheritance and an ever-growing population in the former districts are the two factors that tend more and more to popularize land-ownership.

In the latter districts, however, the arable land is virtually monopolized by descendants of the old militarist and bureaucratic cliques or by urban commercial capitalists, in consequence of which little progress has yet been made in their cultivation. Considering this fact, it would be a mistake to predict that this system will last for some time to come.

The landlords of the latter sort are utterly disinterested in actual farming. What they have in mind is the extraction of as much land-rents as possible from their tenants. Improvement of their estates after they have been leased to the tenants is no concern for them.

It is far from their thought to invest capital where there is little hope for profit-making. With their surplus funds, they would play the role of a capitalist or a usurer by trying to collect the surplus farm produce of their tenants at as low prices as possible which they could market with considerable profit. Further, their attention is directed to other agricultural enterprises that may appear profitable in their eyes.

Methods of Farming

In studying the methods of farm production in Manchuria, it may readily be noted that the scale of production is quite small on the whole. The arable land is divided into extremely small pieces which are being cultivated by several million farmers on the old Chinese methods of farming.

There are only a handful of farms managed along the modern lines of machinery. The use of tractors is limited to the contractors for reclamation of waste land. The system of farm management is generally primitive. The main crops require little farming skill, such as kaoliang, soya beans, millet, maize and wheat. Naturally, the methods of what is termed "extensive agriculture" is necessary to ensure the livelihood of the farmer.

Under this system, it is hardly possible for

the farm-family to cultivate their farms without the aid of outside labor.

There naturally is a great demand for farm labor, enabling, on the one hand, several hundred thousand Shantung coolies to find employment in Manchuria and, on the other, helping the petty Manchurian tenant-farmers to earn a living. Because primitive methods of farming are still in force the farmers are disinclined to believe the advisability of managing their farms on a bigger scale. This fact explains that large tracts of tillable land are divided into small pieces for cultivation by petty tenant-farmers.

This tenancy system smacking strongly of feudalism inevitably accelerates a retrogression of farming technique. Although comparatively modern technique has been introduced of late into some limited districts, particularly the newly cultivated areas in North Manchuria, much still remains to be done in the improvement of the present methods of farm production. As pertinent to this subject, the problems of farm implements, domestic animals for farming purposes and, last but not least, of fertilizers must be discussed.

Farm Implements

(1) Many implements are of simple structure, made of wood and supported by small pieces of steel only in important parts. (2) Implements of simple structure can easily be made at home, and those impossible of domestic manufacture excepting a few of big size can be obtained for 5 to 50 cents, some of which can easily be repaired at home. (3) They are driven by manual or animal power. (4) The efficiency of most implements is extremely low, but they have been improved to some extent after many years' experiment.

Each farm-house possesses farm implements worth between 150 to 400 yuan. Advanced farming technique is inapplicable to small farms. This is responsible in the main for the retention up to date of the inefficient old implements.

The smaller farmers cannot afford to spend plenty of money in purchasing farm implements, because the major portion, if not the whole of their funds were disbursed to purchase or lease their farms.

Table 3. Imports of Agricultural Machinery, Implements, Tools, Etc.

	(in MY) Value
1933	122,557
1934	157,836
1935	606,119
1936	986,847
1937	2,306,741

Domestic Animals: Animal power is an essential factor of Manchoukuo agriculture: in the ploughing and tilling of farms or in the unhulling of cereals, it is absolutely necessary. It is argued from the theoretical point of view that one horse or cow is necessary per 5 tienti of land under cultivation, but in reality, this is not observed.

A Chinese plough is usually driven by a pair of cows or horses. Those petty peasants who do not keep two such animals make it a rule to form groups of two or three so that their farms can be ploughed by turns by the animals and ploughs offered them respectively. For the lesser peasants who cannot afford to or need not keep any animal for farming purposes, there are men whose business is to plough farms by contract.

Live-stock excepting animals for farming purposes (such as pigs, hens, ducks, etc.) is negligible as a source of income for the Manchurian farmer. Fundamentally, the economic structure of the Manchurian rural communities was set up on the Chinese model. Naturally, the Manchurians like the Chinese are disinclined to keep live-stock more than necessary, so that they can concentrate their energy upon farming alone.

As a matter of fact, they raise pigs and hens only to meet their own consumption or as a source of fertilizer. A survey by a reliable expert interested reveals that the average income from cattle-raising of the farmer in North Manchuria represents only 7 per cent. of his entire revenue.

Fertilizers

At present, little use is being made of chemical fertilizers. In the most densely populated villages of the Kwantung Leased Territory, the farmers fertilize their farms once a year, in the Hsiungyancheng region once every two years and in the Kungchuling area once every three years. In some parts of North Manchuria and of Eastern Mongolia, farms are never manured.

The most popular of all fertilizers in Manchuria is a mixture of animal dung, grass, horse-beddings, ashes, leaves, kitchen rubbish and mud which are accumulated by every farm-house throughout the year. Cattle-raising, therefore, is a prolific source of this peculiar fertilizer.

For vegetable garden which requires a volume of fertilizer two or three times as large as that required for usual farms, this specific fertilizer is purchased from cart-houses and others. When this is impossible, bean-cakes are generally used as a substitute. Thus, the cost of fertilizer in Manchurian agriculture is quite negligible.

While farms are fertilized in such manner,

some farmers make a point of growing soya beans, kaoliang, millet and maize after an interval of between three and four years in order that the maximum efficiency of their farms may be displayed. A certain foreign expert aptly

said that the scientific agriculture of the 20th century was discovered and tested by the Chinese more than 20 centuries ago on the strength of experiences.

Table 4. Imports of Fertilizers
(Volume in 1,000 catties; Value in MY1,000)

	Sulphate of Ammonia		Chlorate of Potash		Other Chemical or Artificial Fertilizer	
	Volume	Value	Volume	Value	Volume	Value
1934.....	1,042	63	475	131	8,438	218
1935.....	610	40	826	158	20,552	718
1936.....	1,147	114	706	154	19,348	520
1937.....	2,704	178	1,104	261	30,975	915

Table 5. Consumption of Fertilizer in Kwantung Leased Territory

	Self-supplied manures (Y1,000)	Purchased manures (Y1,000)	Total consumption (Y1,000)	Per hectare (in Yen)		Per household (in Yen)	
				Self suppl.	Purchased	Self suppl.	Purchased
1928.....	3,354	384	3,739	1.594	0.323	53.624	7.561
1929.....	3,490	588	4,079	1.530	0.560	53.820	10.340
1930.....	2,198	383	2,581	1.039	0.297	32.551	7.158
1931.....	1,813	370	2,183	0.912	0.287	29.317	7.018
1932.....	3,094	519	3,614	1.355	0.409	44.118	9.755
1934.....	4,162	761	4,923	1.870	0.540	59.490	13.500
1935.....	5,083	776	5,860	2.495	0.572	72.450	18.822
1936.....	5,167	994	6,162	2.383	0.672	70.198	16.590

Table 6. Sales Amount of Sulphate of Ammonia
(In Metric tons)

	1935	1936
Mond Ammonia	983	581
Oil Shale Ammonia	1,423	7,315
Anshan Ammonia.....	113	171
Manka Ammonia	1,995	1,941
Gas Ammonia		150
Total.. { Amount	4,514	10,158
{ Value	¥423,316	¥947,741

Method of Tenancy

Contracts for land tenancy are generally verbal, although there are cases in which such contracts are signed by the parties concerned. Some of these contracts are arranged to last for fixed periods ranging from one to five years, but in most cases, terms of validity are not designed. Hence, there is the danger of the farms leased by the tenants being recovered by the landowners without notice. It is on this account that land-rents tend to soar to the limit of the resources of the tenants.

Agricultural Division

Manchoukuo may be divided into four parts according to its physical configuration and distribution of arable lands. These are:

(1) South-eastern portion; (2) South-western portion; (3) Central portion; (4) Northern portion.

1. The chief features of the South Eastern portion, which, comprises the whole basin of the Yalu and the Liaotung Peninsula, are its prominent mountains and, in general, its sandy and sterile soil with its mixture of gravel. The Japanese leased territory of Kwantung is very hilly and the soil is especially poor. But, since it is the most densely populated portion of Manchoukuo, every inch of arable land, even the hillside and the river bed, is under cultivation. The same condition prevails more or less in other parts of this portion with the exception of the districts along the upper reaches of the Yalu, where there are still left some lands yet to be cultivated.

2. The south-western portion, which comprises the entire basin of the Liao, is level, and generally well suited for agriculture. The whole region is well cultivated, and, with the exception of some districts along the upper reaches of the river and those adjacent to Outer Mongolia, there is little room left for further exploitation. Some parts of this portion are quite rich, though other parts, especially along the sea coast and the lowlands, have a soil that is sandy and some-

times saline. What is most deplorable in connection with this portion is the lack of proper drainage system, some districts along the lower Liao, once the best agricultural fields, being already in part deserted on account of repeated inundations.

3. The Central portion, which occupies the middle part of Manchoukuo watered by the River Hurka and the upper and middle reaches of the Sungari, is unquestionably the best agricultural region in the new empire. Especially are the lands around Hsinking, Kirin and Harbin exceedingly rich, and moreover there is still plenty of room for further exploitation. As a matter of fact, it is in this region that the most wonderful development has taken place in agriculture in recent years.

4. The Northern portion, which comprises the whole of the northern region watered by the lower Sungari, the Nonni, and the Amur, is generally rich in soil, though being so sparsely populated it is not as yet much developed. But its possibility is immense.

On the whole it may be said that the best farm lands in Manchoukuo are not found in South but in North Manchuria.

Soil.—The soil of Manchoukuo is fertile in general and may be divided into two main classifications, consisting of black and yellow soil. The black soil region is to be found in the north and is rich in chemical and mineral matters. The yellow soil region is centered in South Manchuria, and is poor in nitrogenous and organic matter. The soil as a whole is rich in alkaline. While the farming lands in the south

have been deprived of much fertility due to indiscretion in agricultural methods and choice of crops in the past, the soil in the north with its wonderful natural loaminess, especially in the regions of Shwangchengpu, assure good harvests for many years to come. With a view to developing the fertility of the soil in the exhausted regions the government has been taking steps at propagating the use of fertilizers and discreet rotation of crops.

Climatic Influences.—The climate of Manchoukuo, as noted elsewhere, is characterized by the short duration of spring and autumn and the comparatively long summers and winters. With consideration of such climatic conditions and the seasons and amount of rainfall, the choice of crops, the period of planting and harvesting are accordingly determined. The country as a whole is marked by continental dryness, which is particularly emphasized in the west and whatever rainfall is mostly centered in the eastern half of the country. Frost prevails in North Manchuria for some 225 days during the year and in South Manchuria for some 180 days and moisture is thickest in the months of June and July. Taking advantage of the thick moisture in June and July planting is undertaken and harvest is done in the dry season.

Principal Crops

The principal crops of Manchoukuo are soya beans, kaoliang, millet, maize, wheat and rice. The area and output of such crops are given as follows:—

Table 7. Area Under Various Crops
(In 1,000 hectares)

	Soya Beans	Other Beans	Kaoliang	Millet	Maize	Wheat	Rice	Upland rice	Other cereals	Total incl. others
1924.....	2,179	184	2,212	1,564	880	746	7	80	522	8,323
1925.....	2,691	308	2,532	1,902	1,107	881	94	111	694	10,314
1926.....	3,349	438	2,401	1,926	1,177	896	111	120	777	11,196
1927.....	3,559	448	2,674	2,115	1,083	1,139	126	117	813	12,070
1928.....	3,760	474	2,916	2,184	1,068	1,317	83	101	1,169	13,072
1929.....	4,017	401	2,988	2,148	937	1,299	89	112	1,051	13,486
1930.....	4,153	407	3,056	2,227	957	1,382	99	109	1,096	13,486
1931.....	4,235	367	3,004	2,351	1,086	1,588	83	119	1,242	14,315
1932.....	4,144	375	2,710	2,272	1,112	1,488	67	107	1,212	13,486
1933.....	3,879	301	2,661	2,157	980	1,395	63	105	1,124	12,665
1934.....	3,273	322	2,707	2,170	1,123	826	102	102	1,273	11,897
1935.....	3,249	330	2,765	2,395	1,236	980	120	114	1,161	12,349
1936.....	3,415	366	2,906	2,503	1,294	1,085	174	114	963	12,821
1937.....	3,540	364	2,961	2,564	1,394	1,201	210	105	1,007	14,246
1938.....	3,783	408	3,372	3,144	1,611	1,143	255	96	1,112	15,136

Table 8. Output of Principal Crops
(In 1,000 Metric tons)

	Soya Beans	Other Beans	Kao liang	Millet	Maize	Wheat	Rice	Upland rice	Other cereals	Total incl. others
1924.....	3,455	256	4,477	3,042	1,694	806	95	88	760	14,672
1925.....	4,188	334	4,710	3,137	1,888	962	193	150	891	16,453
1926.....	4,700	523	4,550	2,982	1,774	969	181	134	829	16,731
1927.....	4,835	580	4,605	3,226	1,803	1,446	149	147	1,018	17,810
1928.....	4,852	622	4,643	3,290	1,853	1,471	151	145	1,271	18,298
1929.....	4,865	550	4,712	3,374	1,733	1,303	138	157	1,601	18,434
1930.....	5,318	519	4,818	3,304	1,719	1,538	156	158	1,730	19,080
1931.....	5,245	462	4,533	2,983	1,833	1,582	161	163	1,862	18,829
1932.....	4,288	456	3,757	2,635	1,687	1,134	112	138	1,561	15,764
1933.....	4,601	304	4,022	3,184	1,759	651	166	143	1,804	16,847
1934.....	3,600	279	3,589	2,093	1,609	863	199	118	1,299	13,432
1935.....	3,822	272	3,842	2,970	1,801	935	285	137	1,245	15,310
1936.....	4,175	330	3,981	3,038	2,099	883	438	136	1,021	16,101
1937.....	3,719	313	3,677	3,067	1,996	892	600	103	1,000	15,510
1938*.....	4,381	354	4,566	3,499	2,402	953	662	125	1,089	18,177

Note: * Estimate.

Table 9. Output and Area of Crops By Provinces (1938)
(Excluding four Hsingan Provinces)

	Area (hectares)	Crops* (M. tons)	Compared with 1937 (-decrease)
Hsinking Special City	18,423	22,357	13,410
Kirin	2,933,161	3,608,837	663,086
Lungkiang	2,266,366	3,459,148	378,194
Heiho	29,960	27,358	5,850
Sankiang	718,415	803,101	- 53,421
Mutankiang	304,251	310,170	- 98,689
Pingkiang	2,935,845	3,371,306	178,303
Chientao	239,804	262,789	- 41,115
Tunghwa	223,460	362,258	96,507
Antung	437,822	742,813	196,127
Fengtien	2,644,187	3,667,554	666,081
Chinchow	1,304,966	1,551,763	382,180
Jehol	1,079,072	987,397	377,923

Note: * Forecast made on July 1st, 1938.

Soya Beans.—Soya beans are the most important staple product of the country and had been grown for many years before the opening of Newchwang while some had been exported to the ports of South China. At the time of the Russo-Japanese War (1904-05) the Japanese became aware of the value of the bean, especially of the bean cake for use as fertilizer, but the article did not enter upon its career as an important factor in international trade until 1910 when the Mitsui Bussan Co. made a trial shipment of 100 tons to England. Since then, mainly through the continued experiments of the Central Laboratory, maintained in Dairen by the S.M.R., many new uses have been found for soya beans until today the articles manufactured either wholly or partially from beans, bean oil and bean cake include more than thirty items, among which the following may be mentioned: soy, sauces, soups, condensed milk, casein, cheese, salad oil, crackers, macaroni, flour, con-

fectionary, glycerine, explosives, enamels, varnishes, butter and lard substitutes, edible oils, salad oils, water-proof material, linoleum, paints, soap, celluloid, rubber substitutes, printing ink, lighting and lubricating oils, etc. Bean cake is also used extensively for fodder and as fertilizer.

The S.M.R. Agricultural Experiment Station at Kungchuling and elsewhere have through continuous experiments and distribution of superior seeds to Manchurian farmers increased the crops by 10 to 20 per cent. while the oil content of such improved beans has been increased by more than ten per cent. The use of these improvements is being advocated by means of poster campaign and other forms of propaganda, while demonstrations are being carried out to instruct the farmers in new methods. At the same time a new industry of manufacturing beans into oil and cakes has sprung up, the modern methods rapidly replacing the old-fashioned presses.

Soya beans are exported to Japan, China,

Europe, the South Seas and almost all other countries of the world. Their exports for the last few years are given below:—

Table 10. Soya Bean Exports
(In 1,000 metric tons)

1930	2,027
1931	2,834
1932	2,562
1933	2,523
1934	1,976
1935	1,892
1936	1,963
1937	1,974

Kaoliang.—Kaoliang is most widely cultivated and occupies an important position in the agricultural economy next to soya beans. Besides being very important as the principal foodstuff of the Manchoukuo people it is used as material for distilling Kaoliang spirits and in the starch manufacturing industry and as fodder for domestic animals, while its stalks are also utilized for building materials and as fuel. The first shipment to Europe was made soon after the World War as grain food for horses. The principal producing centres are the districts along the South Manchuria Railway main line, Mukden-Shanhaikwan railway line and the district around Tungshan.

Kaoliang is exported chiefly to China for the use of food, distilling and fodder. It is also exported to Japan where it is used as a substitute for rice, and materials of spirits and starch.

Millet.—Millet is cultivated throughout Manchoukuo, more profusely in North than South Manchuria. In South Manchuria, the millet produced in the district around Haicheng, Liaoyang and Mukden is reputed for its good quality. It is another important foodstuff of the Manchoukuo people, and is also largely used for distilling native spirit while its stalks are used as fodder. Millet is chiefly exported to Korea to be taken by the people who export rice to Japan.

Wheat.—The soil in North Manchuria is generally suitable for wheat cultivation. In North Manchuria good wheat are produced in the districts around Ningan, Petuna, Harbin and along the right bank of the Sungari and the district around Suihua, while in South Manchuria the producing centres are found around Hsifeng, Hailung and the district lying to the west of the Liao. There are many large modern flour mills at several important cities around Harbin and along the North Manchuria Railway line. The wheat flour industry in Manchoukuo is an important industry, being only second to that of bean oil extraction.

For the purpose of increasing Manchurian

wheat output, especially by changing from soya bean to wheat cultivation in accordance with the Manchoukuo five-year industrial plan, the Provincial Governments in North Manchuria have purchased superior wheat seeds for the hsien in the Provinces.

Wheat seeds purchased by the Provincial Governments up to the middle of March, 1937 amounted to 2,365 tons in Pinkiang Province, 2,227 tons in Sankiang, 2,207 tons in Lungkiang, and 901 tons in Kirin, totalling 7,320 tons, of which the seeds to be distributed among the farmers were to have been 2,207 tons in Pinkiang, 1,757 tons in Sankiang, 1,758 tons in Lungkiang and 781 tons in Kirin, aggregating 6,323 tons.

Provincial wheat crop areas are estimated at 21,000 hectares in Pinkiang, 18,000 hectares in Sankiang, and 18,000 hectares in Lungkiang or 65,000 hectares altogether.

Table 11. Twenty-Five-Year Expansion Plan for Wheat Production

	Area under wheat (Metric tons)	Production (Hectolitres)
1933.....	1,222,200	1,210,895
1934.....	1,222,200	1,210,895
1935.....	1,264,100	1,252,400
1936.....	1,306,000	1,294,020
1937.....	1,348,000	1,335,623
1942.....	1,658,800	1,643,456
1947.....	1,987,800	2,011,923
1952.....	2,326,000	2,458,117

Rice.—The paddy-fields devoted to rice cultivation are mostly found in the districts around Mukden, Fushun, Antung, Kaiyuan, Sungshu, Haicheng, Yingkow and Hailin, Chientao, and the district along the banks of the Liao, the Sungari, the Tatzuho, the Hunho and other rivers. As the rice is used on rare occasions such as dinners and festivals and among the upper class Chinese, the demand for rice has never increased. The entry of the Japanese into Manchoukuo stimulated the cultivation of paddy-rice. The cultivation of paddy-rice was first undertaken by Korean immigrants, next by Chinese, and now many Japanese are engaged in paddy-field cultivation along the railway lines.

Upland rice is inferior to paddy rice in quality, though the crops are gradually increasing. It is chiefly taken by the natives.

Maize.—Maize is one of the principal products of Manchoukuo. When ground it becomes a high class food for the farmers. Together with millet it is only second to kaoliang as food. Maize is produced chiefly in the southern part of South Manchuria. Only a small quantity is produced in North Manchuria where it is used

in distilling spirits. Maize is exported chiefly to China and also to Japan.

Sericulture.—Sericulture in Manchoukuo has a history dating from about 330 A.D., when mulberry trees were first brought from Liaotung and planted in some part of central Manchuria as a trial for silk-raising. Later in the Ching Dynasty sericulture was much encouraged and as a result silk-worm rearing has come to spread among the farming classes, though until recently sericulture has never appeared as a form of farming industry, it being carried on as a side work in a limited circle to the peasantry. But since the successful results of experiments conducted at the South Manchuria Railway Co's. Experiment Farm at Hsiunyoacheng and the Kwantung Experiment Farm, the people have come to see a hopeful future for the cocoon raising industry which promises to develop as a remunerative subsidiary work for the farming classes since the climatic condition of the region is highly adapted to silk-raising and also in view of the long-off season of farming which affords farmers ample time for occupying themselves with such subsidiary works. At present, the position of sericulture in the farming industry of Manchoukuo is rather insignificant. It is carried on only in the Kwantung Leased Territory and neighborhood on a moderate scale, but expectations are entertained that sericulture will develop into an important industry of Manchoukuo.

Hemp (Tama).—The tissues of hemp which are commonly called Tama in Manchuria are used principally for manufacture of nets, ropes, cloth and last but not least, paper. Its seeds, or Siaoatzu, are used mainly as material for oil extraction. The Tama intended for textile manufacture is grown notably in Fengtien province and the mountainous district in the eastern part of Kirin province and that for oil extraction in the Tungshan district, Fengtien province, the region west of the Liao river and the districts along the Itung and Lalin rivers, Kirin province.

The Manchurian farmer makes it a rule to plant one or two rows of Tama on the boundaries of his farms for the purpose of marketing its tissues as a remunerative secondary occupation. The output of Tama per Japanese tan (0.245 acre) is about 8 Japanese kamme (1 kamme is 8.28 lbs.). The total cultivation area in Manchuria is estimated at 20,000 Japanese cho (1 cho is 2.45 acres) and the yearly output of the plant at 16 million lbs., although any authentic figures are not available in this connection. There are several kinds of Tama now grown in Manchoukuo.

Blue Hemp (Tsingma).—Tsingma is grown almost everywhere in Manchuria, particularly in low, humid districts along rivers. So far as Tsingma cultivation is concerned, the regions along the Liao, Lalin and Nenkiang rivers are widely known. The total area under cultivation is put at 25,000 cho and the yearly output of the plant at 25 million lbs. Particularly, the district in the vicinity of Liaoyang, Chinchow and Newchwang are best suited for Tsingma cultivation, where the plant usually grows to a length of from 7 to 10 feet.

Like Tama, Tsingma is used primarily for manufacture of nets, ropes and cloth. Of late, it has begun to be used as a substitute for ramie which is imported to Manchoukuo in large quantities for manufacture of gunny bags. The output per Japanese tan of dried Tsingma issues averages 16 kamme. There are two kinds of the plant grown in the country.

Kunma.—Kunma is a kind of hemp indigenous to Manchurian soil, which is grown for oil extraction. In some parts of the country, it is called Tamatzu. A full-grown Kunma plant measures only 2 feet or so. Liaoyang, Tungliao Taonan and Changwu are the principal producing centres of Kunma. From Kunma is extracted Kunma oil which is used for industrial purposes. The output of this oil per Japanese tan averages 5 Japanese sho (1 sho 0.48 gallon).

Perilla-seed.—Perilla is grown everywhere in Manchuria, although its output is relatively negligible. Particularly, the region north of Mukden is well adapted to the cultivation of perilla. Following the sharp drops that have occurred in the price of soya beans, there are growing signs in evidence of perilla being cultivated on a much larger scale in the near future. The plant usually measures 3 feet. The oil extracted from it is used for medical, lighting and industrial purposes. Perilla is usually planted on the boundaries of farms as a means of protection for staple farm crops.

Tobacco.—The southern and eastern sections of Kirin province form the main tobacco producing territory of Manchuria. In the northern and eastern parts of Fengtien province it is also planted on a fairly large scale. Kirin province leads in production followed by Fengtien province. Generally speaking, the quality of tobacco produced in Manchuria is not good but of late it has been proved by the experiments conducted by the South Manchuria Railway Co. at Fenghuangcheng and Tekhissu that the cultivation in Manchuria of yellow tobacco of the American origin is quite promising and profitable.

To meet the tobacco shortage caused by restriction in leaf tobacco imports in accordance with the revised Customs tariff in effect since January, 1938, the Manchoukuo Government plans to increase its tobacco land by 43,000 hectares in Antung, Fengtien, Chinchow, Jehol, Kirin, Chientao, Pinkiang and Mutankiang Provinces, which are suitable for tobacco cultivation.

In line with the plan for increasing the crop, the Government is planning to increase its leaf tobacco import from Japan to some 2 million yuan in 1938 from about 800,000 yuan annually in the past, upon which negotiations were under way between the Finance Department of Japan and the Department of Finance and Commerce of Manchoukuo.

Table 12. Output of Leaf Tobacco
(1935-36)

Provinces:	Area Under Tobacco (Hectares)		Estimated output (Kg.)		Output per hectare (Kg.)	
	American specie	Native specie	American specie	Native specie	American specie	Native specie
Kirin	14	11,560	8,232	6,003,311	588	571
Lungkiang	.....	3,216	.....	1,631,872	.....	513
Heiho	.....	33	.....	16,071	.....	487
Sankiang	.....	1,236	.....	729,264	.....	590
Pinkiang	.....	5,873	.....	3,264,528	.....	559
Chientao	.....	561	.....	252,646	.....	450
Antung	1,832	1,345	3,072,178	700,619	1,677	521
Fengtien	691	6,194	916,590	3,881,734	1,326	627
Chinchow	.....	1,401	.....	787,774	.....	562
Total	2,537	31,419	3,997,000	17,267,819	1,575	653

Cotton.—When the climate and topographic features of Manchuria are taken into careful consideration, it may readily be seen that the region south of Mukden alone is adapted to cotton cultivation. At present, cotton is planted mainly in the districts around Liaoyang, Haicheng, I-hsien and Chihhsien. Their fibres are generally coarse and the major portion of the output is used for stuffing purposes. In recent years, however, the volume of native cotton for spinning purposes has steadily been on the increase.

Plans for increasing cotton output under a five year plan were under contemplation by the Manchoukuo Government in 1938. According to the project tentatively announced a scheme is under way to increase the cotton growing area to 300,000 cho and to expand production to 150,000,000 kin of raw cotton. This program is to be realized in South Manchuria, especially in Fengtien, Chinchow, and Jehol Provinces.

Considering the fact, that cotton is a commodity of vital importance for the daily life of the Japanese and Manchurian nations and also for the national defence of the two Empires, the Government of Manchoukuo has taken and is taking all conceivable measures to improve and encourage cotton cultivation in Manchuria. Already, a 20-year plan has been announced by the Government, under which the

cultivation area is to be increased to 300,000 cho. Further, the Government in 1938 created a Raw Cotton Society with a view to devising equitable ways and means to encourage cotton cultivation among the agrarian masses. This was followed closely by the establishment of the Manchuria Raw Cotton Company which is to purchase surplus raw cotton from the farmers.

Under orders of the Minister of Industry, the company is to buy up cotton crops in districts to be designated by the Minister. It is to undertake various enterprises to encourage the industry. The authorized capital of the company is 2,000,000 in Manchoukuo yuan. The government is to disclaim dividends accruing to the account of Government-owned shares in the company until the concern is able to declare a 6 per cent dividend. The Government is ready to grant an annual subsidy of 100,000 in Manchoukuo yuan to the company for the time being.

Of the total Manchoukuo output, only 4 million kin is spun, the remainder being used by the farmers themselves for stuffing purposes.

Table 13. Area Under Cotton and Crop

1934	92,870	138,843,608
1935	56,971	63,516,264
1936	82,411	95,648,000
*1937	116,391	128,940,100

Table 14. Output of Raw Cotton By Provinces
(Area in cho; Output in 1,000 Kin)

	Fengtien		Chinchow		Jehol		Antung		Kirin		Total	
	Area	Output	Area	Output	Area	Output	Area	Output	Area	Output	Area	Output
1933..	23,445	56,222	18,300	34,190	5,127	6,258	580	754	38	34	52,489	97,448
1934..	57,094	93,951	53,488	42,229	2,179	2,561	159	101	3	1	92,869	138,844
1935..	35,391	40,572	19,963	20,687	1,593	2,240	24	18	..	..	56,971	63,516
1936..	45,121	51,688	34,106	40,179	3,434	3,739	50	42	..	..	82,411	95,648
1937..	53,666	98,858	43,460	71,164	2,200	5,352	..	..	..	..	103,849	..

Condition of Cotton Cultivation in Kwantung Province.—The authorities of the Government of the leased territory of Kwantung Province had made efforts to encourage cotton cultivation in the various districts under its jurisdiction with the object of bringing the area under cotton up to 2,500 cho in 1935, but the desired results have not been obtained due to a delay in sowing.

Peanut.—Epochal progress has been made of late in the growing of peanuts in Manchuria, particularly in the Kwantung Leased Territory. For this is largely responsible the fact that peanut cultivation requires no fertilizer and yet is quite profitable. As a matter of fact, the peanut has come to rank among the principal items of Manchurian farm produce for exportation. For instance, more than 80 per cent. of the output in the Kwantung Leased Territory is shipped abroad. In order to ensure the smooth progress of peanut exports, peanut growers' associations were created at Pulantien and Pitzuwo in the Territory in 1929, which are designed to conduct strict examinations of peanut exports on the one hand and, on the other, to function as a credit organ for the growers themselves. Since 1930, the Government of the Kwantung Leased Territory has been subsidizing these associations. It is believed that peanut cultivation will grow more popular in Manchuria in the near future.

Sugar-beet.—The first cultivation of sugar beets for manufacturing purposes which was started by Manchurian farmers near Suchiatun, Shenyang prefecture, met with good results, thus giving the possibility of adding another product to native husbandry with the hope that it might become in future an important item in the list of Manchurian crops.

Though the experimental cultivation of sugar beets, which was started in 1914 by the S. M. R. Agricultural Station at Kungchuling, proved that the percentage of sugar content in local beets and also the production area in the country were promising for manufacturing purposes, much difficulty has been experienced in persuading the Manchurian farmers to see the commercial value of sugar beets.

In 1936 the Manchurian Sugar Refining Company Ltd. (Manshu Seito) successors to the South Manchuria Sugar Manufacturing Company, succeeded in interesting the farmers and in encouraging sugar beet production in 47 villages near Suchiatun, around which 463 hectares of beets were cultivated in the spring of 1936.

The total crop amounted to about 5,000,000 kin or about 10,000 kin per hectare, to the great satisfaction of both the promoters and cultivators. Shipments of sugar beets to the company's plant, which started its operation in November, began in the middle of December, and the movement of beets to the Suchiatun station was active, amounting to about 250,000 kin per day.

Vegetables.—Generally speaking, vegetables are grown in Manchuria primarily to be consumed by the farmers themselves. Under the circumstances, they are marketed as commodities only in densely populated cities and towns along the railways. Among the principal vegetables produced in Manchuria are: mad-apple; rapeseed; leek; garlic; yam; potato; sweet potato; pumpkin; water-melon; cucumber; musk-melon; green peas; red beans; onion; turnip; spinach; burdock; pepper.

Vegetables are grown on usual farms and specially built gardens, the latter being drained or irrigated. Mad-apple, onion, turnip, burdock, rape, potato, pepper, pumpkin and musk-melon are the principal ones grown on usual farms, while irrigated vegetable gardens are generally confined to the growing of water-burdock, garlic, cucumber, beans and yam. Drained gardens are used chiefly for the raising of mad-apple, white-rape, garlic, pepper, pumpkin and spinach.

Stock Farming

In Manchuria some live-stock have been kept by every farming household for the use of farming and conveyance. In Mongolia live-stock rearing has been extensively carried on for the use of food and of material for clothing. The pigs of Manchuria and sheep and

horses of Mongolia are well known in the world. There is still a considerable room for improvement in the live-stock industry, which hitherto been carried on in a way far from scientific. The new Government is exerting every effort to improve the stock. The following table shows the general distribution of domestic animals:—

Table 15. Statistics of Domestic Animals
(Aug., 1936)

Provinces:	Cattle	Sheep	Goats	Swine	Camels
Kirin	72,584	19,816	8,324	724,462	3
Lungkiang	81,169	40,438	14,672	531,847	6
Heiho	3,382	492	26	13,676	—
Sankiang	40,043	1,283	936	142,264	—
Pinkiang	85,916	31,579	6,304	1,075,502	—
Mutankiang					
Chientao	40,873	1,056	133	74,797	—
Antung	118,481	2,024	16,525	352,446	—
Tunghua					
Fengtien	152,678	27,318	18,556	1,211,805	111
Chinchow	96,515	223,709	60,850	755,365	7
Jehol	182,140	207,363	378,775	724,018	1,458
Total	873,781	555,078	505,101	5,607,182	1,485
East Hsingan	9,689	473	102	13,830	—
South "	150,534	56,376	57,180	152,731	570
West "	183,023	100,217	145,177	74,714	1,978
North "	184,266	957,498	34,971	3,948	6,971
Others	19,970	11,903	9,056	58,762	—
Total	547,482	1,125,467	246,486	303,985	9,539
GRAND TOTAL	1,421,263	1,680,545	751,587	5,911,167	11,024

Note: Statistics of horses later than those appearing in the previous issue of the Japan-Manchoukuo Year Book are not available.

Plans were on foot in 1937 to increase the number of cattle by 104,000 per year. The rate for sheep was 153,000 and that for swine, 50,000 heads. As the country is well suited for stockbreeding the future of Manchoukuo as a large cattle raising country is said to be bright.

Table 16. Number of Slaughter Houses
(End of 1935)

	No. of Slaughter houses				Total	No. of inspectors			Total
	Under jurisdiction of "hsien" (County) or City	Under management of corporation	Under mandated management	Private management		Qualified	Disqualified	Unknown	
Kirin Hsien	16	—	1	—	17	2	5	1	8
Lungkiang "	19	—	1	—	20	10	7	3	20
Heiho "	—	—	—	2	2	—	—	1	1
Sankiang "	8	2	—	11	21	3	9	2	14
Pinkiang "	17	—	—	26	43	3	13	3	19
Mutankiang "									
Chientao "	2	—	—	3	5	—	3	2	5
Antung "	20	2	—	—	22	2	9	7	18
Tunghua "									
Fengtien "	42	—	—	2	44	8	8	2	18
Chinchow "	26	—	—	—	26	3	23	1	26
Jehol "	7	—	—	5	12	6	1	1	8
Hsinking Special City	3	—	—	—	3	2	—	—	2
Harbin Special City	2	—	—	—	2	4	—	—	4
Total	162	4	2	49	217	43	78	22	143

Table 17. No. of Animals Slaughtered (1935)

	No. of Animals slaughtered					
	Cattle	Horses	Mules	Pigs	Sheep & Goats	Total
Kirin Hsien	10,327	382	114	47,641	4,735	63,199
Lungkiang	12,663	185	185	53,758	7,254	74,303
Heiho	487	—	—	2,313	233	3,033
Sankiang	5,143	—	—	26,568	198	31,909
Pinkiang	6,546	519	46	66,912	1,547	75,570
Mutankiang						
Chientao	2,465	—	—	10,057	324	12,846
Antung	13,036	55	276	41,243	4,744	59,354
Tunghua						
Fengtien	36,495	576	365	223,366	25,746	286,548
Chinchow	9,648	52	25	46,177	22,716	78,618
Jehol	3,383	—	2	33,980	32,979	70,344
Hsinking Special City	7,205	1,672	950	25,641	2,348	37,816
Harbin Special City	25,344	335	404	63,880	20,781	110,744
Total	132,742	4,034	2,367	641,536	123,605	902,284

Domestic animals in Japan consist generally of cattle, horses, sheep, goats and pigs. In Manchuria, besides these animals there are mules, donkeys and camels: Mongolians keep sheep for the use of food and of materials for clothing. Manchurians keep pigs chiefly for food and cattle, horses, mules and donkeys for services.

Organs for Improvement of Stock-farming

The task of improving live-stock farming is assigned to the fishery and stock-breeding section of the Agriculture and Forestry Bureau of the Industry Ministry. Further, every province has adequate organs of its own designed to improve and encourage stock-farming. As regards the question of horse improvement, the War Ministry has within it a Horse Administration Bureau. An official plan is under way at the hands of this bureau to breed two million

heads of improved Arab and other horses. As another measure to serve this purpose, the Government has already enacted regulations governing horse-races.

Turning to sheep raising, the Government of Manchoukuo has in view the establishment of a State sheep-breeding station. Many plans are also in progress as regards the improvement of cattle and pigs. As other public organizations engaged in the improvement of the live-stock farming in Manchoukuo, the Fengtien Provincial Agricultural Experiment Station at Chin-hsien and the State Animal Disease Laboratory at Koshan, Lungkiang province, must be alluded to. Arrangements are also being made for the establishment of a Fengtien Provincial stock-farm in Liaoyuan-hsien, a Lungkiang Provincial stock-farm at Taonan and a veterinary college at Hsinking, the capital of the State.

Table 18. 30-Year Plan for Sheep's Wool Production in Manchoukuo and Kwantung Province

(a) No. of sheep (1,000 heads):

	Manchoukuo			Kwantung Province		
	Thorough bred	Improved bred	Native bred	Corriedale	Improved bred	Native bred
1937	8	24	3,080	1.6	1.9	0.9
1938	14	35	3,220	2.1	2.7	0.9
1939	20	91	3,386	3.2	3.8	0.9
1940	26	161	3,619	4.3	5.1	0.8
1941	35	310	3,857	5.8	6.7	0.8
1946	3,163		3,115	25.6	24.7	0.7
1951	5,982	—	2,374	113.8	—	0.5
1956	8,800	—	1,632	115.7	—	0.3
1961	11,618	—	890	116.6	—	0.2
1966	14,436	—	148	119.6	—	0.0
1967	15,000	—	—	120.0	—	—

(b) Wool production (1,000 pounds):

	Manchoukuo		Kwantung Province	
	Thorough & improved bred	Native bred	Corriedale & improved bred	Native bred
1937	209	6,790	24.2	2.1
1938	329	7,099	33.3	2.0
1939	670	7,465	49.2	1.9
1940	1,091	7,978	66.0	1.9
1941	1,955	8,503	88.1	1.8
1946	22,143	6,868	351.7	1.5
1951	41,871	5,233	796.3	1.1
1956	61,599	3,597	809.9	0.8
1961	81,326	1,962	823.6	0.4
1966	101,054	327	837.2	0.0
1967	105,000	—	840.0	—

Japanese Organs.—As for Japanese organs, mention must be first made of the live-stock section of the S. M. R. Agricultural Experiment Station at Kungchuling and the stallion breeding farm managed directly by the Agricultural Bureau of the S.M.R. Co. In the Kwantung Leased Territory there are similar organs under official management. Further, a Temporary Horse Administration Committee has been organized jointly by the Kwantung Army, the Government of the Kwantung Territory and the S.M.R. Co., in order to consider the measures to be taken to improve horses in Manchuria. Attending to the sanitary affairs of live-stock is the S. M. R. Animal Diseases Laboratory at Mukden.

The Live-Stock Section of the S. M. R. Agricultural Experiment Station.—Simultaneously with the creation in 1924 of the S. M. R. Agricultural Experiment Station at Kungchuling, this section was brought into being in consideration of the important role which live-stock is playing in the daily life of the Manchurian people. Since its conception, this section has accomplished much to its credit, which may be summarized below:

(1) Improvement of sheep:—Formerly, the sheep raised in Manchuria were all of the Mongolian breed in consideration of the specific climatic conditions in the country. A disadvan-

ageous point with the Mongolian sheep, however, is that their wool is not good and, what is worse, is quite small as compared with other improved breeds. And this is but natural, considering that the Mongolians keep sheep only for obtaining meat and hides and, therefore, pay little heed to the utilization of wool. With the advancement of human civilization, wool has become an inseparable factor of clothing, but the Mongolian breed is of little value from this point of view. Hence, the necessity was brought home to the S. M. R. authorities of improving this breed so that it might yield better and more wool.

With this in mind, the officials of the section have devoted themselves to the improvement of the Mongolian sheep. Various experiments were conducted and finally, they have succeeded in creating new and better breeds—Merino-Mongolian cross-breeds.

The wool of the Mongolian sheep is so coarse and small that it is unsuitable for manufacture of textile goods, but the new, improved breeds are free from any such disadvantages. What is more, they yield wool usually three times as much as the original Mongolian sheep do. Below is given a table showing the results of the experiments carried out by the section:

Table 19. Wool Yield By Breeds

Breed	Sex	Age (Year) over	No.	Volume of wool per head (Kgs.)	%
Mongolian breed	Female	2 or 3	2,928	1,182	100
Merino-Mongolian cross-breed	"	"	"	2,456	208
Ditto, improved breed	"	"	"	2,863	243
Merino	"	3	427	5,880	496
Mongolian breed	Male	2 or 3	356	1,610	136
Merino-Mongolian cross-breed	"	"	"	3,421	289
Ditto, improved breed	"	"	"	4,581	388
Merino	"	3	193	8,060	682

(2) Improvement of pigs:—It is estimated that the number of pigs kept by the Manchurian farmers is upwards of eight million head. The breeds raised in the country in the past were quite fecund, but were less portly than foreign breeds. Another disadvantageous point with

them was that they required longer time to grow than foreign breeds. Hence, their upkeep was more costly than the latter.

The live-stock section of the S. M. R. Agricultural Experiment Station at Kungchuling after a series of elaborate experiments came to the conclusion that better breeds could be produced by mixing the imported Birkshire breed with the native breeds. The new breeds thus created require far shorter time to grow than the original Manchurian ones and, therefore, their raising is less costly and more profitable.

(3) **Improvement of horses and cattle:**—Various experiments are being conducted by the section in regard to the improvement of horses and cattle by mixing the Arab and other imported breeds with the native ones. Many tangible results have already been obtained in this regard. Efforts are also being made successfully to improve Manchurian chicken. Along with the improvement of live-stock, extensive experiments are in progress to improve fodder and pasture.

Live-Stock Breeding Farms

(1) **Sheep-breeding farms:**—The experiments conducted by the live-stock section of the S.M.R. Agricultural Experiment Station at Kungchuling have proved the technical possibility of improving the Mongolian breeds. As a result, the section has established special sheep-breeding farms at several places including Kungchuling, Heishantun, and Chienchiatien. The improved sheep bred at these farms are distributed among different localities every year.

(2) **Pig-breeding farms:**—The live-stock section of the S.M.R. Agricultural Experiment Station at Kungchuling also maintain pig-breeding farms at Tiehling, Anshan, Fushun, Wafangtien, Chengchiatun, Tashichiao, Liaoyang, Kaiyuan, Ssuningkai, Tatun, Pensihu, Fenghuangcheng, Taonan, Hailung and Tunhua.

(3) **Cattle-breeding farms:**—With a view to improving milch cows in Manchuria, the S.M.R. Agricultural Experiment Station maintains a cattle-breeding farm at Kungchuling. The station also manages a poultry-raising farm at Wafangtien, though on a rather small scale.

The Live-Stock Section of the Kwantung Government Agricultural Experiment Station.—In 1916, the Government of the Kwantung Leased Territory established a stock breeding station at Chinchou, a town under its jurisdiction, which was greatly enlarged in 1928 in order to breed and improve cattle, horses, pigs and chicken on an extensive scale. The breeds improved at this farm are distributed extensively throughout the Territory. Experiments are also being conduct-

ed successfully by the section in connection with the artificial incubation of chicken. In this manner, the section is playing the leading role in the live-stock farming in the Leased Territory. The results of the improvement effected may be summarized in the following:

(1) **Cattle:**—The experiments conducted by the section have proved that cattle of the Korean stock can be raised for farm work more profitably than the breeds indigenous to Manchuria. As regards milch cows, the Holstein breed is now being bred widely within the Territory.

(2) **Pig:**—Following the example of the South Manchuria Railway, the section imported the Birkshire breed to be mixed with the original Manchurian breeds. The result has been more satisfactory than expected. At present, the improved breeds produced at the hands of the section occupy more than 80 per cent. of the pigs kept throughout the Territory.

(3) **Hens:**—So far as egg-laying is concerned, the native Manchurian hens are wretchedly poor. Hence, many superior kinds of hens have been imported by the section from Japan and other foreign countries, which are now being bred extensively by the farmers within the Territory.

(4) Many experiments have been conducted by the section to grow new vegetables for feeding hens with successful results.

Improved Sheep for Hulumbair.—In view of the sorry plight of live-stock farming in the Hulumbair district caused by heavy snowfalls the Japanese Chamber of Commerce and Industry in Hailar City announced in March, 1937 an important plan to introduce better sheep breeds. Under this plan, 1,000 sheep are to be purchased shortly from outside for distribution in the district with the aid of the Manchoukuo Government and the South Manchuria Railway Company.

Wool now being produced in the Hulumbair district annually is valued at 750,000 yuan, but within seven years of the enforcement of the plan, the production is to be increased to 5,250,000 yuan. The authorities of the Japanese Chamber of Commerce and Industry say that the wool of the sheep now being raised in the districts is so coarse that its use is limited to the manufacture of carpets and felt only. The new breeds to be introduced will yield better wool fit for the production of clothing material and will be less affected by weather and climate conditions than those being raised at present.

The Kwantung Government Stallion-Breeding Farm.—In co-operation with the S.M.R. Co., the Government of the Kwantung Leased Territory

in June, 1926, established a stallion-breeding farm at Chinchou, the upkeep of which is financed jointly by the two. At present, approximately 30 select stallions are being kept at this farm for improvement of horses within the Territory and the S. M. R. zone. Many improved cross-breeds have been produced at this farm by importing the Anglo-Arab, Hackney and other breeds.

Colt-raising is also being conducted at the farm as an undertaking incidental to stallion-breeding. As regards the improvement of donkeys and mules, superior breeds were imported from Shansi and Hopei provinces, China, for production of mixed breeds which are now distributed widely within the Leased Territory and the railway zone. From April to June, every year, the stallions kept at Chinchou are dispatched to various important towns.

The Temporary Horse Administration Committee.—This committee was created jointly by the Kwantung Army, the Government of the Kwantung Territory and the South Manchurian Railway Company in October, 1926 with a view to considering ways and means to improve and encourage horse-raising in Manchuria. The committee frequently meets in conference to discuss any important questions that are laid before it. At the request of the Governor of the Kwantung Leased Territory, the committee met in March, 1932, when it drafted an elaborate plan to improve horses in Manchuria.

The Horse Administration Bureau of the Manchoukuo Defence Department.—Conceiving the vital importance of horses from points of view of national defence and agriculture, the Government of Manchoukuo is directing its efforts to the improvement and encouragement of horse-raising in the country. For this purpose, the Government created the Horse Administration Bureau within the Defence Department and appointed a Horse Administration Committee. Arrangements are also under way for establishment of various facilities in this direction.

Horse-races.—In July, 1923, an Imperial Ordinance was proclaimed, authorizing the holding of public horse-races within the Kwantung Leased Territory. Detailed regulations governing the matter were put into force the following month, by which the Dairen Race Club was officially recognized. Horse-races take place thrice every year. The horses which take part in the contests are distributed among different localities as a step to improve horses. Considering that horse-races have a vital bearing upon the improvement of horses in Manchuria, efforts are being made by the Government of the Kwantung Leased

Territory to obtain better results from them through strict control.

In Manchoukuo, State-owned race courses have been opened at Mukden and Harbin. At Hsinking, Kirin, Tsitsihar, Yinkow and Chienhsien, private race clubs are authorized to hold races in conformity with the relevant State laws.

The S. M. R. Animal Disease Laboratory.—Manchuria is naturally adapted to stock-raising. This may be accounted for by the fact that the total number of cattle, horses, pigs and sheep now being kept throughout the country exceeds 20 million head. Notwithstanding this, modern sanitary facilities for these animals are lacking with the result that many animal epidemics have been rampant in the past.

In order to remove this grave obstacle to stock-raising, the South Manchuria Railway Company in October, 1925, established the present Animal Disease Laboratory which is devoted to the prevention of animal plagues. The Laboratory is making an immeasurable contribution to the sound development of stock breeding in the country.

Private Live-Stock Associations.—A number of experts in stock-raising are assigned to the Home Affairs Bureau of the Government of the Kwantung Leased Territory, entrusted with the task of studying plans to improve this important line of farming.

Further, every administrative district within the Territory has a private stock-raisers' association or farmers' association which, in concert with the authorities, is trying to improve this agricultural industry.

As regards the improvement and encouragement of live-stock farming, the Government of the Kwantung Leased Territory is pursuing a policy along the following lines: (1) distribution of eggs for hatching, (2) granting of subsidies for purchase of domestic animals, (3) granting of subsidies for construction of animals sheds, (4) distribution of seeds for fodder and pasture, (5) granting of subsidies to exhibitions of animals and animal produce and (6) supervision and encouragement of stations.

In the various towns along the S. M. R. trunk and branch lines, there are also private organizations which are co-operating with the authorities concerned in the improvement of live-stock farming. Of these organizations, the Agricultural Associations at Kaiping, Haicheng and Yinkow, the Industrial Association at Anshan, the Pig Raisers' Association at Fushun and the Chicken Raisers' Association at Antung are the principal ones.

Manchuria Live-Stock Industry Co.

The Manchuria Live-Stock Industry Company, which was established in August, 1937 as a semi-governmental corporation on a capital of 5 million yuan, half of which is paid-up, to play a leading role in the guidance and improvement of live-stock raising is to be reorganized into a special governmental corporation, simultaneously with collection of its unpaid capital to the amount of ¥2,500,000, it has been tentatively decided by the Manchoukuo Department of Industry and other authorities concerned.

The Company, after its reorganization, will undertake the following enterprises: (1) The company will loan money to the live-stock exchanges to facilitate fair transactions. (2) Loaning money to the Agricultural Association.

Besides, assisting its enterprises.

The Manchuria Live-Stock Industry Company, it is reported, will take part in the manufacture of commodities from farm produce. It is understood that in the latter half of the fiscal year of 1939 it will take over the factories in Harbin now being managed by the South Manchuria Railway Company for the production of such commodities.

Poppy Growing

The area under cultivation of poppy amounted to 1,030,000 hectares in 1937 as compared with 880,000 hectares in 1936 and 941,000 hectares in 1933. In 1938 it is planned to reduce the area to 710,000 hectares.

The largest poppy growing districts are the provinces of Jehol, Sankiang and West Hsingan.

Table 20. Legalized Area for Poppy Growing

Province	(1,000 hectares)					
	1933	1934	1935	1936	1937	1938
Jehol	580	460	310	600	700	650
Kirin	361	486	—	—	—	—
West Hsingan	—	40	10	50	50	60
Fengtien	—	80	—	—	—	—
Chinchow	—	—	30	—	—	—
Antung	—	—	10	—	—	—
Chientao	—	—	145	—	—	—
Pinkiang	—	—	50	30	30	—
Sankiang	—	—	135	200	250	—
Total	941	1,066	690	880	1,030	710

Table 21. State Purchases and Sales of Opium

Quantity in liang (1 liang=50. grams); Value in MY.

	Purchased		So'd	
	Quantity	Value	Quantity	Value
1933	3,429,601	7,630,775	1,220,403	5,511,033
1934	6,612,951	14,999,670	3,808,499	14,372,726
1935	7,601,254	15,362,449	7,780,606	28,230,347
1936	10,307,943	19,834,666	10,108,223	38,667,556
1937	13,500,000	29,025,000	12,300,000	47,850,000

Public Granaries

By Departmental Order No. 14, August 31, 1935, the Regulations for the Control of Public Granaries were announced by the Department of Civil Affairs. The sum of MY3,000,000 is being distributed throughout the country as funds and subsidies for building the necessary granaries.

The new regulations will enable each "hsien" or county to collect grains from the people and store them for emergency relief and other similar purposes, particularly, in cases of disasters or calamities or for supplying the poor with foodstuffs or furnishing them with needed funds.

Table 22. Statistics on Granaries

	Minimum* quantity cereal holdings (Koku)	Minimum Capacity (Tsubo)	State Subsidy	
			Construction expenses (MY)	Other expenses (MY)
Kirin Hsien	222,750	742.5	51,583	88,200
Lungkiang	87,750	292.5	29,709	42,924
Heiho	2,400	8.0	1,390	2,293
Sankiang	39,900	133.0	11,920	17,052
Pinkiang	200,250	667.5	52,200	91,728
Mutankiang				
Chientao	21,000	70.0	4,040	9,878
Antung	141,000	470.0	46,440	54,096
Tunghua				
Fengtien	411,450	1,371.5	122,819	167,757
Chinchow	144,000	480.0	55,100	52,272
Jehol	106,500	355.0	37,964	51,744
Hsingan	14,250	47.5	5,700	7,056
Total	1,391,250	4,637.5	418,865	585,000

Note:—* Each helen is furthermore required by law to command the financial resources to double its minimum quantity of stored cereals. The said quantity shall be determined by the Civil Minister (at present the Minister of the Department of Industry).

Staple Products Examination Law

In view of the need of a standardized national system of examining agricultural products, the Government promulgated on September 17, 1937 the Manchuria Agricultural Products National Examination Law, which went into force from January 1, 1938.

The Law, consisting of fifteen articles, establishes the national examination system with respect to soya beans, bean cakes, and bean oil. It requires those products to be transported and exported to pass the prescribed national examination before exportation or transportation. The Manchoukuo Government has delegated the Manchurian Agricultural Products Institute to take charge of the newly created national examination of all staple agricultural products which are transported by rail or exported. In carrying out this task the Institute will establish about 150 branches at all leading railway stations throughout the country, and will take over various existing facilities belonging to the South Manchuria Railway Company.

Manchoukuo Government's Basic Policy for Agricultural Development

On April 21, 1936 the Manchoukuo Government announced a fundamental policy for the exploitation of the country's inexhaustible agricultural resources. The policy is the outcome of lengthy and careful consultation among the Department of Industry, the Interior and Mongolia Administration which have been in close association with the commercial and industrial possibilities of the State.

The policy is designed to improve the existing out-of-date and primitive methods of agriculture

along modern lines and to multiply the output of soya beans, kaoliang, cotton and other staple farm products. It also provides for extensive reforms and renovations in credit and other public facilities for the farming population, including inter alia, the erection in various localities of farm warehouses. Many elaborate and concrete programmes are also laid down in regard to the policy for the general improvement of farming methods, which, it is stated, will be enforced one by one.

The utmost importance is attached to the announced policy, in view of the fact that Manchuria fundamentally is a land of agriculture, nearly 90 per cent. of its population being represented by farmers. It is believed that the enforcement of the policy will reshape the country so far as its agriculture is concerned. The following are the chief programmes put forward by the Government, which relate to the country's staple farm products:

- (1) Soya-beans: The growing of soya-beans should be properly controlled according to their actual demand both at home and abroad. For the time being, efforts should be directed towards the improvements of the methods for soya-bean cultivation and quality of the crop, while trying to lower its production cost and commercialize the bean as a commodity.
- (2) Kaoliang, millet and maize: The output of kaoliang, millet and maize should be increased by considering the growing demand for them as foodstuffs arising from a steady increase in the national population, their use as fodder in Japan and also the domestic consumption of these products as industrial materials.

- (3) **Wheat:** Particular efforts should be exerted to improve and encourage wheat cultivation in North Manchuria. The total future wheat acreage should be increased to 2,300,000 Japanese cho and the total output of the crop to 20,000,000 Japanese koku.
- (4) **Cotton:** The total cotton acreage should be increased to 300,000 cho and the annual output of cotton to 150,000,000 kin.
- (5) **Wild silk:** Better silk worms should be distributed among the farmers while trying to improve the existing methods of raising them. The annual output of silk cocoons should be raised to 30,000,000.
- (6) **Sugar beets:** The total acreage under sugar beets in North Manchuria alone should be increased to 12,500 cho and the total yearly output of sugar beets to 500,000,000 lbs. so that 700,000 piculs of sugar may be produced to place the country on a self-sufficing basis as far as sugar production is concerned.
- (7) **Plants for production of fabrics:** Cultivation of kenaf particularly in South Manchuria should be encouraged with a view to increasing the total acreage of land for its growing and its annual output to 18,000 hectares and 18,500 metric tons respectively. The total acreage of farms for hemp growing also should be raised to 200,000 cho. The output of other kinds of hemp for fabric manufacture is to be increased to suffice the domestic demand.
- (8) **Perilla, peanut, sesame, etc.:** Cultivation of these crops as materials for oil extraction should be encouraged and at the same time, efforts should be made to improve the methods of their growing.
- (9) **Hop:** In view of a brisk demand for hop in Japan, the total acreage of land under hop is to be raised to 30,000 hectares.
- (10) **Fruits:** Fruit growing particularly in South Manchuria, Chinchou and Jehol should be encouraged as a lucrative subsidiary occupation for the farmers.
- (11) **Vegetables:** Special efforts should be exerted to improve the quality of vegetables. At the same time competent storage facilities should be established to facilitate their distribution.

The erection of farm warehouses in the farming districts is also provided for in the policy. These warehouses are designed not only to store farm products but also to function as credit or-

gans for the farmers in need of funds. It is explained that any farmer will be able easily to borrow money at low rates of interest on the security of his products stored in the warehouses. This method, it is believed, will go a long way towards relieving the farming population from the depression.

The creation of agricultural meteorological observatories in important districts and "model" villages and despatch of agricultural experts to various parts of the country to give counsel to the farmers are also stipulated in the policy.

New State-owned Experimental Farms Planned

In connection with the fundamental policy for agricultural development enumerated above, on April 25, 1936 the Department of Industry of Manchoukuo announced its decision to establish many more State-owned experimental farm stations throughout the whole country. The officials of the Department of Industry declared in this connexion that the necessity had been brought home to them of creating State-owned experimental farm stations in various districts to help improve farming methods and the quality of farm produce. According to the announcement, the country will be divided into 18 farm districts for the sake of convenience, in each of which one State-owned farm station is to be created.

Another novel plan to introduce the use of windmills into Manchoukuo for irrigation purposes has also been revealed by the Department of Industry. In view of the fact that there are many agrarian districts where competent irrigation facilities are lacking, the Department's experts, after a careful study, have determined that the use of windmills as in Belgium is most advisable and profitable.

It is believed that the use of the windmill will be a great blessing to the farmers particularly those who are engaged in live-stock raising in the districts lacking constant sources of water supply, because subterranean water will be made available through the use of the windmill.

Farm Improvement Embodied in Five-year Industrial Development Plan

As one of the principal projects contained in the five-year industrial development plan, which was formally put into operation on January 1, 1937, the Department of Industry has announced a comprehensive programme for the improvement of agriculture and live-stock farming throughout the country. Under this programme

an important reform in farm administration is planned. Efforts will be made by the Department especially to facilitate the organization of farmers' guilds in all agrarian districts for which purpose a sum of 750,000 yuan was set aside for the financial year of 1937. The creation of many more model farm villages is another important item of the program.

Regarding the improvement of agriculture, attention is to be paid by the Department to the question of increasing the country's output especially of wheat, rice, rye, maize and hemp through the introduction of better seeds and a substantial expansion of areas under cultivation.

A new experimental farm is to be established in Harbin while those already maintained at Koshan and Kiamuszu will be enlarged. As regards live-stock farming, officials will be despatched to the United States and Australia to purchase 1,000 head of Merino and Corriedale sheep.

Further, another sheep-breeding farm under State management is to be newly opened in addition to four already in operation. Improvement of facilities for the prevention of animal epidemics is also on the tapis with an animal epidemic prevention law scheduled to be promulgated shortly.

Plans for 1939

The Manchoukuo Government has projected a sufficient increase in the yield of staple agricultural produce by adopting modern mechanical agricultural methods. A concrete plan was drafted in 1938 by the authorities concerned with the Industrial Department of the Manchoukuo Government and the Manchuria Development Company as the nucleus. The plan having been pushed to completion, it was decided to carry into effect the project from the fiscal year

1939, to be completed in three consecutive years. The projected provisions will first be made in the districts in North Manchuria which have been appointed to be settled with Japanese immigrants and which have been fixed as first likely places for the realization of the project. The authorities are expected shortly to despatch special agents to the spot to carry out the necessary investigations. As soon as these have been finished, actual work will be started. The principal features of the project are as follows:

1. Of the areas in North Manchuria allotted for Japanese immigrants settlers, 220,000 chobu shall be set apart and half that area be turned into fields and half partly into pastures and partly reserve fields in the course of three years, the last mentioned fields finally to be worked for agricultural cultivation.

2. Mechanical agricultural provisions shall be established in fifty-five places with a total area of fields of 4,000 chobu. Part of these fields shall be brought into full working order within two years and the rest within three years.

3. Under the entire programme, the effort shall be connected on increase in wheat production, which stands in the most urgent need of increase, and at the end of the programme three years after, a fresh yield of wheat shall be obtained at least to the amount of 160,000 tons. Barley and soya-bean products shall be limited to the bare amount necessary.

4. One hundred and fifty tractors shall be imported from Germany, 16,500 horses and 11,000 head of cattle imported from Japan and America. Of the fund of ¥30,000,000 needed for the execution of the project, the Manchuria Development Company shall take responsibility for raising part or whole of it by issuing loan debentures and obtaining loans from certain prescribed quarters through the good office of the Manchoukuo Government.

References:

- Table Nos.: 1-2 a, 3-4 b, 5 c, 6 a, 7-9 a, 10 b, 11-17 a, 18 a & c, 19 d, 20 a, 21 c, 22 a.
- Key: a—Department of Industry of Manchoukuo.
b—Monthly Return of Foreign Trade of Manchoukuo.
c—Kwantung Bureau.
d—Industrial Department of S. M. R. Co.
e—Department of Finance & Commerce of Manchoukuo.
f—Department of People's Welfare.

CHAPTER XVII COMMERCE

Commercial Code

The newly compiled Commercial Code of Manchoukuo was promulgated on June 24, 1937 and went into force on July 1st of the same year. The Commercial Code is comprised of five separate laws, namely, the General Commercial Law, the Corporation Law, the Transportation Law, the Warehousing Law, and the Maritime Commerce Law, and, together with the Law Relating to Bills of Exchange and Promissory Notes and Law Relating to Cheques already promulgated, furnishes the basic regulations for commercial activities in Manchoukuo.

The new Manchoukuo Commercial Code is adopted from the Japanese Commercial Code but has the following distinctive departures:

1. Manchoukuo General Commercial Law, comprised of 93 articles and providing general regulations, has been built up with merchants (having corporate existence or conducting business with stores) as its basis, whereas the Japanese General Commercial Law makes the business transaction its basis.

2. The Manchoukuo Corporation Law (a) recognizes no distinction between business and civil corporations and treats them alike, (b) requires the acknowledgement of a notary public for articles of association, (c) does not require directors and auditors to be shareholders, (d) requires banks to supervise shares, and (e) makes the penal regulations more strict.

3. The Manchoukuo Transportation Law was compiled with a view primarily to land transportation and secondarily to sea transportation.

4. The Manchoukuo Warehousing Law does not recognize the mixed-storage system.

5. The Manchoukuo Maritime Commerce Law is practically the same as the Japanese Maritime Commerce Law, except that the former emphasizes the navigation policy.

Trade Control Law

A new trade control law was promulgated by the Government of Manchoukuo on December 9, 1937 and came into force on the same day. The promulgation of the new law aims to expand the Emergency Trade Control Law enacted in June, 1937 against Australia to revise a law of larger scope which will meet the present

situation. Salient points of the new control law are as follow:

1. The Government may prohibit or restrict imports or exports, and increase or decrease custom duties when deemed necessary in the national interests to adjust the demand or supply and prices of commodities.

2. The Government may prohibit or restrict imports or exports to safeguard international payments or adjust trade relations with specially favoured nations.

3. The Government may prohibit or restrict imports or exports of commodities or levy import duties amounting to less than the prices of such commodities in addition to the import duties determined by the Import Duties Law, when deemed necessary in the national interest for the adjustment of trade relations or the protection of national industries.

The following articles will at present be subject to national control: rice, wheat and wheat flour, sugar, leaf-tobacco and manufactured tobacco, soda ash (imports), Indian corn and castor beans (exports).

In order to meet the present situation, prohibitive restrictions will probably be placed on rice imports except rice imported from Japan and Siam. Protective control will be exercised on wheat imports, whilst imports of wheat flour other than from Japan may be entirely prohibited. With the installation of the Manchoukuo Soda Manufacturing Company, soda ash imports will be checked. Restrictions will also be placed on the imports of cigars from Shantung Province and North America to aid the five-year cigar plan and for the readjustment of international payments. Prohibitive restrictions on sugar imports will also be introduced excepting sugar of Japanese origin. Indian corn will not be exported except to Japan. The castor bean export to North America will be stopped.

New Industrial Rights Law.—On April 9, 1936 the Manchoukuo Government promulgated various laws and regulations governing the ownership of industrial rights, which were put into force on the first of the following June. The laws comprise fourteen imperial ordinances and seven decrees of the Department of Industry.

The Imperial Ordinances include the following:—

- (1) Patent Law.
 - (2) Design Law.
 - (3) Law Governing the Registration of Patents.
 - (4) Regulation Governing the Registration of Designs.
 - (5) Regulations Governing Inventions which Require Secrecy from the Military Point of View.
 - (6) Regulations Governing Designs which Require Secrecy from the Military Point of View.
 - (7) Law Governing the Expropriation of Patent Rights.
 - (8) Law Governing the Expropriation of Designs.
 - (9) Regulations Governing Fees Concerning Patents and Designs.
 - (10) Regulations Governing the Bureau of Patents and Inventions.
 - (11) Regulations Governing the Organization of an Examination Committee Regarding Expropriation of Patents.
 - (12) Regulations Concerning a Revision of the Salaries of Officials above the Grade of Delegated Appointment.
 - (13) Regulations Concerning a Revision of the Salaries of Officials of the Grade of Delegated Appointment.
 - (14) Law Governing Fees for the Registration of Designs.
- The Decrees of the Department of Industry comprise the following:—

Departmental Decrees

- (1) Regulations Governing Enforcement of the Patent Law.
- (2) Regulations Concerning Enforcement of the Patent Law.
- (3) Regulations Concerning the Law Governing Fees for the Registration of Patents.
- (4) Regulations Concerning the Registration of Designs.
- (5) Regulations Governing the Issuance of Official Notice of Patents.
- (6) Regulations Governing the Division of the Bureau of Patents and Inventions.

Upon the enforcement of the new laws and regulations the present Trade Mark Bureau was reorganized into the Bureau of Patents and Inventions.

Chambers of Commerce.—In Manchuria there have been such commercial organs as Chambers of Commerce, which are intended to protect and further the interests of commerce and industry and keep amicable connections between the dealers in the same line of business.

COMMERCE

The number of chambers of commerce and their membership by locality are tabulated below:—

Table 1. Chambers of Commerce and Industry (1936)

Locality	Members
Fengtien Province	52
Antung & Tunghua Provinces	15
Chinchow	19
Kirin	26
Pinkiang & Mutankiang	38
Lungkiang	24
Sankiang	15
Chientao	6
Jehol	13
Heiho	2
Asingan	7
North Manchuria Special Dist.	26
Total	243

Table 2. Details of Chambers of Commerce and Industry (End of March, 1937)

Name of Seat	No. of Members	No. of Electorate	Expenditure (Yen) (Budget for 1937)
Dairen	50	1,170	120,000
Mukden	30	358	69,200
Antung	30	210	35,530
Hsinking	30	136	64,560
Yingkow	30	92	23,160
Harbin	30	300	57,882
Tiehling	18	92	9,000
Kirin	20	134	23,520
Chinchow	30	212	20,632
Tsitsihar	15	187	17,106
Anshan	30	163	26,250
Hailar	30	121	22,267
Mutankiang	20	250	22,870
Tumen	20	134	14,470
Total	383	3,559	526,447

Industrial and Commercial Association.—The industrial and commercial association is a sort of trade association, which has for its object the maintenance of the public interests of the traders. The Government has drafted legislation concerning the Association. Pending the enactment of the law similar laws which were in force during the former regime are made use of in regard to the Association.

Trade Marks

As stated above, in September, 1933 the Trade Mark Law and Detailed Regulations for the Enforcement of the Law were promulgated by the Manchoukuo Government. From their enforcement on November 20 of the same year to the end of December, 1930 the Government received a total of 21,527 applications for trade mark registration.

The number of applications from nationals of countries, which have not yet recognized the new

State, is steadily increasing, but the Government does not make any discrimination between these applications and those of its own people and Japanese.

Patent Rights and Designs

The number of patent rights and designs applied for is detailed below:—

Table 3. Application and Registration of Patent, Design and Trade Mark Since Opening of Business

	Patent (June 15th, 1935-Dec. 31st, 1937)		Design (June 15th, 1935-Dec. 31st, 1937)		Trade Mark (Nov. 20th, Dec. 31st, 1937)	
	Application	Registration	Application	Registration	Application	Registration
Manchoukuoan	29	1	14	—	1,080	471
Japanese	11,937	4,746	2,258	676	17,778	13,570
British	117	13	2	—	1,406	1,157
American	347	66	19	—	1,304	941
German	1,976	772	39	3	1,641	1,291
French	71	15	—	—	343	333
Italian	45	7	—	—	—	—
Chinese	—	—	2	—	107	26
Swiss	42	21	—	—	153	146
Others	130	39	—	—	242	186
Total	14,694	5,680	2,334	679	24,054	18,121

Weights and Measures

Various standards of weights and measures have been in use in Manchoukuo, to the great inconvenience of dealers and customers alike. Generally speaking they may be classified into the Chinese, Japanese and Russian systems, the international metric, and the British "foot-pound" systems. Each has its own particular field of use, the Chinese system being employed among the Manchurians and Chinese, the Japanese among the Japanese, the Russian among the Russian population, and the metric and the foot-pound standards among those having transactions with the South Manchuria Railway Co. In order to reform this confused state of affairs, the Government, on January 25, 1934 promulgated the Weights and Measures Law, stipulating that for general transactions and for purposes of certification, the international metric system or the new "chih-chin" system should be used. In September, 1935, a measurement law was enacted to unify all weights and measures which were excluded from the Weights and Measures Law of 1934.

Under the present system all implements for weights and measures must be duly inspected and authenticated by the authorized public weighters and measurers located in town and country before such implements can be used for business transactions.

Japanese Organs

The Japanese commercial organs may be broadly divided into two groups. One of them is intended to promote and further the inter-

ests of the Japanese merchants and the other the interests of those engaged in the same line of business. The former consists of Chambers of Commerce and Industry, Business Societies and Business Associations. The latter consists of co-operative societies. Besides, there are commercial museums, which are playing an important role in the development of Japanese trade and commerce.

Chambers of Commerce and Industry.—As at the end of September, 1936 there were eleven Chambers of Commerce and Industry one each in Dairen, Mukden, Antung, Yinkow, Hsinking, Harbin, Tiehling and Kirin, Chinchou, Tsitsihar, and Anshan. Those in the first named two places are most active. Besides, there are similar organs in the railway zones, namely, the Anshan Business Society, the Liaoyang Business Society, the Fushun Business Society, the Kaiyuan Business Society, Ssuningchih Civic Society, the Kungchuling Commercial Society, the Port Arthur Commercial and Industrial Society and the Penhsihu Business Society.

Trade Associations.—Co-operative undertakings are generally developing both in the size of capital and in the scope of the business. Excepting, however, the consumption guild composed by the members of the S.M.R. Co., and the Manchou Import Guild, these associations in general do not yet show great activity. The trade associations organized by Japanese, Manchoukuoans and foreigners as at the end of 1934 were 353 in number with a total membership of 107,833. Contrasted with the previous year, the membership shows an increase of 18,102.

Manchu Import Guild.—The first import guild in Manchuria was established in Mukden in 1927 with the object of reviving the activity of the Japanese merchants residing in Manchuria, who had been hard hit by the post-war depression and of accelerating the import of Japanese goods into Manchuria. At present there are in all a score of import guilds scattered over principal cities and towns. In August, 1927 there was established the Manchu Import Federations in order to control the guilds with a loan of ¥3,500,000 from the South Manchuria Railway Company to be redeemed within sixteen years. The sum of ¥100,000 had been already redeemed by the end of 1936. Besides, the Federation has obtained a low-interest loan of ¥1,500,000 from the Department of Finance. It was established for

the purpose of accommodating purchase funds, reforming trade customs, assisting in the purchase and consignment of goods, the extension of markets, the reduction of freights and other charges. At present the Federation is engaged exclusively in the accommodation of purchase funds, the rest of the business having been made over to the Manchu Import Company, which was brought into being in July, 1935 with the object of rationalizing and controlling the purchases of the members. In December, 1934 a research section named the "Trade Research Section" was instituted with the Federation to investigate the taste of the Manchoukuoans and other matters, thereby promoting the import of Japanese goods into Manchoukuo.

Table 4. Condition of Import Guilds

	Members	Advances		Subscription paid	
		End of July, 1937	Compared with July, 1936	End of July, 1937	Compared with July, 1936
Dairen	327	¥973,920	¥108,007	¥710,868	¥25,305
Ryojun (Port Arthur) ..	61	98,637	12,550	75,663	3,188
Tashihchiao	28	63,889	-900	47,793	275
Yingkow	52	150,505	29,466	104,696	6,376
Anshan	72	239,538	25,745	133,576	4,755
Liaoyang	33	194,018	15,205	66,055	345
Mukden	150	306,162	21,159	287,102	15,403
Fushun	75	232,552	33,185	169,624	5,988
Penhsihu	21	45,476	-2,051	9,291	1,048
Antung	106	355,508	34,865	254,095	12,340
Tiehling	41	128,290	9,197	87,251	-381
Kaiyuan	27	63,244	12,162	39,299	1,511
Ssuningkai	49	179,460	52,568	110,191	8,820
Kungchuling	23	83,419	14,851	54,623	2,574
Hsinking	133	342,577	59,934	235,836	6,886
Kirin	22	44,257	17,133	41,006	14,310
Harbin	73	319,790	-2,651	208,015	10,828
Tsitsihar	34	—	—	28,275	18,225
Chinchow	44	—	—	29,143	29,143
Total	1,371	3,821,170	440,425	2,722,357	166,937

Manchu Import Company.—The Manchu Import Company referred to above was opened to business on August 15, 1935 with agencies in Tokyo, Osaka and Nagoya. It has a capital of ¥500,000. Since December, 1935 the Company has run the warehousing business in Dairen.

Representatives of Japanese Prefectures and Colonies.—Various prefectures of Japan and also Korea and Formosa have their representatives stationed in Manchoukuo to assist in business transactions, propaganda and investigation of the character and standing of Japanese traders resident in Manchoukuo. As in July, 1936 there were representatives in Dairen, Mukden, Hsinking and Harbin.

The names of prefectures and colonies represented in the respective localities are as follows:—

Dairen.—Fukuoka, Osaka, Aichi, Yamaguchi, Tokyo, Hokkaido, Saga, Wakayama, Formosa, Mukden.—Hiroshima, Fukui, Shizuoka, Kyoto, Okayama, Hyogo, Gifu, Ishikawa, Tokyo, Osaka, Wakayama, Nagoya, Korea, Fukuoka, Miyagi, Shimane.

Hsinking.—Aichi, Fukuoka, Hiroshima, Korea, Tokyo.

Harbin.—Aichi, Fukuoka, Tokyo, Osaka, Hyogo, Hiroshima, Hokkaido, Toyama, Korea.

Mukden Trade Association.—The Mukden Trade Association was organized in December, 1912 by the Japanese traders resident at Mukden. The members of the association as in July, 1936 numbered 35. It handles chiefly wheat, flour, sugar, furs and hides, rubber shoes, textiles, toilet goods and others. It is steadily being carried on between Manchoukuoan con-

sumers and exporters in Japan.

S.M.R. Consumption Guild.—Principal associations formed by consumers comprise the S.M.R. Consumption Guild, the Kwantung Government Purchasing Guilds, the Communications Purchasing Guild, etc.

The origin of the S.M.R. Consumption Guild is to be sought in an institution established by the S.M.R. Co., in August, 1907 to supply the necessities of life to the members of the Company resident along the railway lines. It was on November 1, 1919 that it was reorganized into a consumption guild under the present title partly to meet the requirements of the times and partly to meet the ardent desires of the whole staff of the Company. As it was declared by the S.M.R. Co., at the time of its establishment, the Consumption Guild was given a special favour in the form of (1) accommodation of funds, (2) buildings and furniture being loaned gratis, and (3) assistance in the payment of customs duties and freights. Due to the growing utilization by the staff of the Company and management, the guild progressed very satisfactorily. After the post-war depression set in, the guild began to adversely affect the local retailers so much that they clamoured for the abolition of the consumption guild. At last the Chamber of Commerce proposed that the special favours be withdrawn from the guild. In response to this proposition on the part of the Chamber of Commerce the S.M.R. Company gradually withdrew protection and assistance from the guild.

In spite of this the guild steadily developed and became firmer in foundation, while the members came to urge that the guild be transformed into a self-governing organ. In accordance with this desire of the members, on April 1, 1925 the Consumption Guild was transformed into an organ for the staff of the S.M.R. Co., or an autonomous organ for them. The rights and obligations of the former guild were all taken over by the reorganized one. It has its headquarters at Dairen and fifteen branches at principal stations on the South Manchuria Railway lines. At present the guild is concerned not only in the sale but also in production by keeping manufactories for foreign and Japanese clothing and a bakery at Dairen and also a

watch mending factory. Thus it meets the requirements of the members of the S.M.R. Company, who, as at the end of July, 1936, numbered 42,971 (115,150 inclusive of their families). The gross receipts of the guilds for 1935 were ¥19,978,000, approximately, and there was a surplus of ¥468,000.

Trading Houses.—The trading houses which carry on the introduction of goods, their propaganda, etc., were at first subsidized by the S.M.R. Company. There are nine of these houses, eleven branches and five sub-branches scattered over Tsitsihar, Taonan, Kirin, Chinchou, Hailar and four other places.

Japan-Manchoukuo Business Association.—The Japan-Manchoukuo Business Association was organized on November 18, 1933 in accordance with the resolution adopted at a reunion of prominent Japanese and Manchoukuoan business men held under the auspices of the Association Supporting the Dairen Exhibition in August, 1933. The Association, of which Baron Selnosuke Goh is president, has its headquarters in the Japan Chamber of Commerce and Industry, Tokyo and branches at Dairen and Seoul. It has for its object expediting the economic co-operation of the two countries and assisting in the economic construction of the new Empire, with an eye to the co-prosperity of the two countries.

Japan-Manchoukuo Trade Federation.—The Japan-Manchoukuo Trade Federation was brought into being in January, 1935 as a by-product of an anti-consumption guild campaign. It is organized by associations of firms in Dairen, Tsitsihar and Chinchou and other similar organizations in all the other cities of Manchoukuo, numbering 14 in all. It has headquarters in the Chamber of Commerce and Industry, Hsinking.

Foreign Chambers of Commerce and Industry

The commercial activities of foreigners excepting Japanese and Chinese are concentrated in Harbin and Dairen, so their chambers of commerce and industry are chiefly situated in those two places as follows:—England: Dairen, Yingkow and Harbin; U.S.A.: Harbin; Germany: Harbin; France: Harbin; Soviet Russia: Harbin.

EXCHANGES

Japanese Exchanges

The Japanese exchanges in Manchuria may be broadly divided into two classes, namely, the Government exchanges established by and under the supervision of the Kwantung Government (as a result of the reorganization of the ex-

change, the right of supervision has been vested in the Envoy Extraordinary and Ambassador Plenipotentiary since the end of 1934) and the private exchange of the organization of joint-stock company to be established with the approval of the Kwantung Government. The former exchanges are in Dairen and Hsinking,

dealing in the staple products of Manchuria, viz. soya-beans, bean-cake, bean oil, kaoliang and rice and gold and silver currencies. The latter exchange comprise the Dairen Stock and Produce Exchange, the Antung Exchange, the Manchu Exchange and the Harbin Exchange, which was established in October, 1933 under Japanese and Manchoukuoan joint management.

Government Exchanges

In 1913 the Kwantung Government established the Dairen Exchange. Later exchanges were established in many places such as Kaiyuan, Changchun, Kungchuling, Tiehling, Ssuningchieh, Mukden, Yingkow, Liaoyang and Antung. In the post-war depression, however, most of these exchanges found themselves in serious circumstances. At last in October, 1934 the exchanges in Tiehling, Liaoyang and Yingkow were closed. In March, 1934 those in Kaiyuan, Ssuningchieh and Kungchuling were also closed. The only produce exchange that enjoys a thriving business is the Dairen Exchange. Like the produce exchange, the currency exchange at Dairen enjoys a good run of business, while similar exchanges at Mukden, Antung and Hsinking are generally declining in activity.

Government exchanges are controlled by the Government of Kwantung and each is staffed with a superintendent, secretary and clerks. An advisory board is attached to each, organized with a superintendent and a number of councillors, the latter appointed by the Governor from among experts in trade and industrial affairs.

The advisory board considers and decides questions concerning the issue of licenses for dealers on the exchange, methods of bargaining, fulfilment of bargain terms, and adaptation of the conduct of business to suit prevailing conditions.

These exchanges under Government management do not guarantee fulfilment of forward contract terms.

On this account, a trust and guarantee company is attached to each exchange to undertake guarantee of faithful execution of the bargain terms and the settlement of accounts.

Dairen Stock and Commodity Exchange.—The Dairen Stock and Commodity Exchange was established in December, 1919 with a capital of ¥10,000,000 in accordance with the Exchange Act of Kwantung Province. As a result of re-

adjustments effected several times, the capital as in September, 1936, was down to ¥5,000,000, of which ¥2,000,000 was paid up. It is popularly known as the "Five Goods Market," because it deals in five items namely, securities, gunny, bags, cotton yarn and cloth, wheat flour and sugar. At present there are little or no transactions in flour and sugar. The Exchange deals chiefly in securities. It is fast improving in position as the largest securities market in Manchoukuo.

Manchu Exchange.—The Manchu Exchange at Mukden is capitalized at ¥1,000,000, of which ¥250,000 is paid up. It is a joint-stock organization. It deals in share certificates, public loan bonds and commodities. At present transactions in commodities are suspended. Chiefly because Mukden is the industrial centre of Manchoukuo the Exchange is steadily increasing in trading in securities, even threatening to outrun the Dairen Exchange.

Harbin Exchange.—The Harbin Exchange is the only exchange that was brought into being in accordance with the Exchange Act promulgated in 1928 during the old regime. Formerly, it was known as the Pinkiang Provisions Exchange. It was in October, 1933 that the Exchange was reorganized into a joint-stock company under Japanese-Manchoukuoan management with a capital of ¥2,000,000. At present the capital is paid up to the extent of ¥1,200,000. At first the Exchange dealt in soya-beans, bean-cake, bean oil, wheat flour, gunny bags, cotton yarn and cloth, miscellaneous grains and engaged in warehousing as an ancillary business. Currency and soya-beans were added to the list with the opening of the market for 1935 on January 4. Much is expected of the future of the Exchange which has a speciality of its own as an economic artery of North Manchuria.

Manchoukuo Exchanges

Barring Japanese exchanges in the principal towns along the railway lines referred to above, the exchanges in Manchoukuo have not yet made much development. For the purpose of laying down a basic policy of the exchange, in 1933 the Government made a detailed investigation of the exchanges of the whole country. As a result, it was decided to reopen those exchanges which had been suspended and cause pseudo exchanges to be closed and have applications for the establishment of new ones to be filed with the Department of Industry.

MARKETS

In Manchuria there have hitherto been two groups of markets, one representing old style furniture, low class miscellaneous goods, provi-

sions, shows, even gambling and the other a mixture of wholesale and retail markets under the management of market companies in the S. M.R. Zone supplying fresh and raw provisions to Japan. Besides there were special markets such

as a fish market under the management of the Kwantung Fishery Association and the Dairen Central Wholesale Market under the direct management of the Dairen Municipality.

CORPORATE CAPITALIZATION

Reflecting the growth of industrial activity, the number of companies as well as corporate capitalization in Manchuria have been on the increase. Paid-up capital has almost trebled between 1930 and 1937, increasing from 713 million yen to 2,020 million yen. Most of the capital was invested in joint stock companies.

The number of companies also increased from 1,271 in 1930 to 3,375 in 1937.

Investments in joint stock companies by enterprises showed that the transportation and communication field accounted for the largest share. Total paid-up capital in these enterprises was ¥660,780,000 in 1936. This was followed by the manufacturing industry with ¥469,735,000.

Table 5. Number and Amount of Capital of Companies in Manchoukuo and Kwantung

(In ¥,1000)

	Joint stock companies			Limited partnerships		Unlimited partnerships		Total	
	No.	Authorized capital	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital or investment
1930	422	951,825	674,028	742	27,312	107	12,369	1,271	713,711
1931	414	939,670	665,019	816	28,731	121	13,080	1,351	706,831
1932	437	984,448	692,704	928	31,420	132	13,365	1,479	737,529
1933	477	1,447,343	942,508	1,047	34,457	159	14,459	1,683	991,425
1934	573	1,664,495	1,115,465	1,201	39,759	192	16,902	1,966	1,172,127
1935	674	1,764,135	1,196,014	1,385	47,078	227	18,501	2,286	1,261,594
1936	794	1,946,960	1,336,041	1,648	58,993	326	25,650	2,768	1,420,685
1937	950	2,717,228	1,910,986	1,853	68,699	572	40,510	3,375	2,020,192
1938 June	959	2,733,243	1,924,101	1,869	69,647	612	41,985	3,440	2,035,733

Table 6. Number and Paid-up Capital of Joint Stock Companies, by Business in Manchoukuo and Kwantung

(In ¥1,000)

	Agriculture, forestry, fishery and colonization		Mining		Mfg. Industry		Commerce and exchange		Transportation and communication		Banking		Others	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1930	16	9,135	6	3,475	148	91,801	95	27,775	35	487,077	68	30,632	54	24,131
1931	15	9,035	6	3,475	147	90,938	92	26,349	35	487,127	68	30,632	51	17,461
1932	16	9,060	6	3,475	151	93,393	100	27,889	37	492,527	70	45,657	57	20,701
1933	18	9,135	7	5,975	172	158,592	108	30,514	41	666,488	72	50,677	59	21,126
1934	22	10,335	12	27,187	207	295,663	123	32,434	49	667,383	89	58,102	71	24,380
1935	25	11,112	16	37,600	238	349,156	164	42,719	56	668,453	95	55,027	80	31,945
1936	31	27,800	16	37,825	284	469,735	190	52,346	59	660,780	108	49,849	106	37,704

Corporate Investments by Leading Companies

With almost no exception capital investments made in the leading companies in Manchuria in recent years are by Japanese establishments. All of the principal Japanese concerns have

shown interest in Manchurian enterprises in varying degree. Hereunder are given the leading companies in Manchuria established since the founding of the new state and the amount of investments made in them by Japanese interests.

Table 7. Capitalization, etc. of Special and Semi-special Concerns at the End of Feb., 1938 (Details of each company will be found in the Business Directory)

(A) Special Concerns

(1) Agriculture:	Established	Authorized Capital (¥1,000)	Paid-up Capital (¥1,000)	No. of shares held by the investors	
				Investors	Shares (1,000)
Manshu Menka (Cotton) K.K.	1934	2,000	500	Manchoukuo Govt.	20.0
				Nansho & Co.	19.5
Manchuria Forestry Co., Ltd.	1936	5,000	3,750	Manchoukuo Govt.	778.4
				Central Bank of Manchou	21.6
				S.M.R. Co.	799.7
Manchuria Live-Stock Co., Ltd.	1937	5,000	2,500	Manchoukuo Govt.	56.0
				Manshu Takushoku K.K.	30.0
				Mansen Takushoku K.K.	15.0
(2) Mining:					
Manshu Tanko (Coal Mining) K.K.	1934	80,000	32,000	Manchoukuo Govt.	138.4
				Central Bank of Manchou	21.6
				S.M.R. Co.	159.6
Manshu Saikin (Gold Mining) K.K.	1934	12,000	7,150	Manchoukuo Govt.	99.6
				Oriental Development Co.	39.8
				S.M.R. Co.	99.6
Manshu Kogyo Kaihatsu (Mining Development) K.K.	1935	5,000	3,100	Manchoukuo Govt.	50.0
				S.M.R. Co.	50.0
(3) Industry:					
Manchuria Light Metal Mfg. Co.	1936	25,000	12,500	Manchoukuo Govt.	200.0
				S.M.R. Co.	280.0
				Sumitomo Concern	10.0
				Nippon Elec. Ind. Co.	8.0
				S.M.R. Co.	58.0
Do-wa Automobile Co., Ltd.	1934	6,200	3,200	Jidosha Kogyo K.K.	9.2
				Tokyo Gas & Elec. Ind. Co.	9.2
				Nippon Sharyo K.K.	9.2
				Mitsubishi Heavy Industries	9.2
				Kawasaki Sharyo K.K.	9.2
				Tobata Imono (Cast Metal) K.K.	9.2
Ho'en Zohel-sho (Mukden Arsenal) K.K.	1926	4,600	4,600	Manchoukuo Govt.	4.6
				Okura Trading Co.	2.3
				Mitsui Bussan K.K.	2.3
Manshu Keiki (Metal) K.K.	1936	3,000	1,500	Manchoukuo Govt.	30.0
Manshu Sekiyu (Oil) K.K.	1934	15,000	12,500	Manchoukuo Govt.	20.0
				S.M.R. Co.	40.0
				Others	40.0
Manshu Gosei Nenryo (Synthetic Fuel) K.K.	1937	50,000	10,000	Manchoukuo Govt.	340.0
				Manchuria Coal Mining Co.	160.0
				Mitsui Concern	340.0
				S.M.R. Co.	100.0
				Manchuria Oil Co.	60.0
Manshu Engyo K.K. (Salt Industry)	1936	5,000	1,250	Manchoukuo Govt.	25.0
				Dai-Nippon Salt Ind. Co.	32.0
				Manchuria Chemical Ind. Co.	5.0
				S.M.R. Co.	20.0
				Oriental Development Co.	2.0
				Others	16.0
Manshu Ohryokko Hydro-Elec. Co., Ltd.	1937	50,000	12,500	Manchoukuo Govt.	500.0
				Choshinko Hydro-Elec. Co.	200.0
				Oriental Development Co.	200.0
				Chosen Soden K.K.	100.0
Manshu Toshio (Books) K.K.	1937	2,000	1,000	Manchoukuo Govt.	20.0
				Tokyo Book Co.	4.4
				Nippon Book Co.	4.4
				Kotoku Printing Co.	4.0
				Osaka Book Co.	3.6
				Nichiman-Man Bunkyo K.K.	3.6
Manchuria Ind. Develop. Corp.	1937	450,000	323,375	Manchoukuo Govt.	200.0
Manshu Yuka (Liquefaction) Kogyo Konsu	1938	20,000	5,000	Industrial Bank of Manchou	100.0
				Others	100.0

	Established	Capital (Y1,000)		No. of shares held by the invest		Shares (1,000)
		Authorized	Paid-up	Investors		
(4) Communication:						
Manchuria Telegraph & Telephone Co., Ltd.	1933	50,000	36,250	Manchoukuo Govt.	220.0	
				Japanese Govt.	780.0	
(5) Colonization:						
Manshu Takushoku K.K.	1937	50,000	30,000	Manchoukuo Govt.	30%	
				Japanese Govt.	30%	
				S.M.R. Co.	20%	
				Oriental Development Co.	15%	
(6) Commerce:						
Manchuria Explosives Sales Co., Ltd.	1935	500	375	Sun Chi-chang, Manchoukuo People's Welfare Minister	5.0	
				Others	5.0	
Manchuria Life Ins. Co., Ltd.	1936	3,000	1,500	Manchoukuo Govt.	80.0	
				Nihon, Dai ichi, Chiyoda, Meiji and Teikoku Life Ins. Co.	24.0	
(7) Banking:						
Central Bank of Manchou	1932	30,000	15,000	Manchoukuo Govt.	30.0	
Industrial Bank of Manchou	1937	30,000	15,000	Manchoukuo Govt.	15.0	
				Bank of Chosen	15.0	
(8) Others:						
Manshu Koho Kyokai (Public Information Assn.)	1936	3,000	2,500	S.M.R. Co.	24.2	
				Manchoukuo Govt.	10.8	
				Manchuria Telegraph & Telephone Co.	6.0	
Manshu Eiga (Movie) Kyokai	1937	5,000	1,250	Manchoukuo Govt.	50%	
				S.M.R. Co.	50%	
Manshu Bosan (Land & Building) K.K.	1938	30,000	15,000	Manchoukuo Govt.	10.0	
				Oriental Development Co.	10.0	
				Industrial Bank of Manchou	20.0	

(B) Semi-special Concerns

(1) Mining:						
Honkeiko Baitetsu Konsu (Penhsihu Iron & Colliery Co., Ltd.)	1935	10,000	10,000	Ryotaro Shimaoka	119.2	
				Chang Wei-keng	79.2	
				Baron Kishichiro Okura	0.2	
				Others	0.1	
(2) Industry:						
Hoten Bosasho (Mukden Spin. & Weaving Co.)	1936	4,500	4,176	Manchoukuo Govt.	22.2	
				Central Bank of Manchou	3.4	
				Bank of China	1.1	
				Bank of Communications	1.1	
				Tungpien Com. Bank	0.6	
				Mukden Commercial Bank	0.5	
Showa Seiko-sho (Showa Steel Works) K.K.	1929	100	89,000	S.M.R. Co.	100%	
Manshu Kagaku Kogyo (Chemical Ind.) K.K.	1933	25,000	18,750	S.M.R. Co.	257.5	
				Union of All-Japan Purchasing Guilds	49.6	
				Toyo Nitrogen Ind. Co.	29.8	
				Sumitomo Concern	11.1	
Manshu Soda K.K.	1936	8,000	4,000	S.M.R. Co.	40.8	
				Manchuria Chem. Ind. Co.	40.8	
				Asahi Glass Co.	56.0	
				Shoko Glass Co.	24.0	
Manshu Toukan (Bean Stem Pulp) K.K.	1937	10,000	5,000	Nichi-Man Fibre Ind. Co.	70%	
				Manchoukuo Govt.	10%	
				S.M.R. Co.	10%	
				Industrial Bank of Manchou	10%	

	Established	Capital (Y1,000)		No. of shares held by the investors		Shares (1,000)
		Authorized	Paid-up	Investors		
(3) Transportation:						
Manchuria Electric Co., Ltd.	1934	160,000	160,000	S.M.R. Co.	899.5	
				Manchoukuo Govt.	353.2	
				Yingkow Water Supply & Transport Co.	88.4	
				Central Bank of Manchou	69.1	
				Hsinking Special Municipality	58.0	
(4) Colonization:						
Manshu Koku (Aeronautic) K.K.	1932	8,580	8,580	S.M.R. Co.	3.3	
				Manchoukuo Govt.	2.2	
				Sumitomo Concern	2.2	
(5) Commerce:						
Nichi-Man Trading Co., Ltd.	1936	10,000	6,000	All Shares Held by the Co.		
				S.M.R. Co.	120.0	
				Manchuria Coal Mining Co.	80.0	

Warehousing

The warehousing business in Manchuria originated in the Dairen Warehousing Company which began to show activity in 1909. During the war boom more than 40 warehousing companies were brought into being. Since the post-war economic depression set in 1920, the business has dwindled. The warehousing business under the management of the S.M.R. alone has steadily developed without being affected by the depression. The godowns run by the S.M.R. Company are in no way behind those in the advanced countries of the West in scope, accommodating capacity and general equipments.

The S.M.R. warehousing business is so predominant that it represents about 90 per cent. of goods in the godowns in all Manchuria. Besides the S.M.R. godowns, there are twelve principal warehousing companies in Manchoukuo, four of them being in Dairen, two in Mukden, two in Hsinking, three in Harbin and one in Fushun.

Principal goods handled by these godowns are soya-beans, bean-cake, kaoliang, maize, rice, red beans, iron, wheat flour, cement, petroleum. In view of the sharp increase in imports and poor accommodating capacity the Manchou Import Federation started a co-operative import warehouse for its members at the end of July, 1935. The warehouse, which was completed towards the end of the year, is placed under the supervision of the Manchu Import Company, which was established in August, 1935.

S.M.R. Warehousing.—It was in September, 1911 that the S.M.R. Company opened the ware-

housing business. Prior to this, or in 1908 the Company instituted a small-scale warehousing facility in the Dairen pier compounds; in 1919, it introduced the open-air storage system at the leading stations along its lines and in 1911 inaugurated the present up-to-date warehousing system at the Dairen waterfront and along its railways. At present there are 70 godowns with an aggregate floor space of over 385,000 square metres on the piers and within the pier compounds of the Dairen harbour and no less than 199 godowns with an aggregate floor space of 154,000 square metres at 8 leading stations. The cargoes handled at these godowns amount to over 11,600,000 tons a year, 60% of which are beans and bean products.

It is of special importance to note that, in order to facilitate the shipment and marketing of soya-beans, the Company had inaugurated what is known as the mixed-storage system, first at the Dairen pier in 1912 and then gradually at Mukden, Kaiyuan, and other centres on the main line. Under this unique system the Company grades and classifies beans at receiving points according to qualities and weights and issues receipt which are negotiable at banks and which call for like quantities and qualities of beans at the specified terminal points. The system was so successful that, it was later extended to bean-cake, bean-oil and wheat. It is also significant to add that the Company, with the inauguration of its warehousing facilities introduced that practice of the insurance on all goods in storage at the Company's godowns, entirely free of charge to the shippers.

Table 8. Condition of S. M. R. Warehousing Business

(End of Dec., 1936)

In Metric Tons

	Carry-over	Receipts	Total	Removed	Balance
Soya-beans (Mixed-storage)	73,170	1,458,840	1,531,010	1,365,360	189,810
Bean-cake (Mixed-storage)	23,168	358,508	381,676	351,685	28,296
Bean-oil (Mixed-storage)	298	22,075	22,373	20,429	1,944
Separate storage	168,278	2,505,152	2,673,430	2,710,480	171,007
Total	264,914	4,344,579	4,609,493	4,447,954	391,058
Total for 1935	506,973	4,447,347	4,954,320	4,697,654	264,914
Total for 1934	596,043	5,576,074	6,172,117	5,545,005	627,111
Total for 1933	645,271	4,877,221	5,522,429	4,926,448	596,042

Manchoukuo Enterprise

The warehousing business under Manchoukuoan management is still in a primitive stage of development. It consists simply in receiving goods for custody for a small amount of fees. No warehousing certificate is issued. Nor any means of affording credit is provided. Besides, there is another sort of warehousing agent known

as "Liangchan," which exercises superb influence over the trade in special Manchurian products. Besides receiving goods for custody it runs hotel and financial business. Its godowns occupy a very important position outside the S.M.R. zone, but they are out of comparison with the Manchu and other godowns under Japanese management in point of storage and equipments.

COMMODITY PRICES

Wholesale Price

The wholesale price of commodities has generally advanced since 1934. In certain items the average price obtaining in 1934 has about tripled in the succeeding three and a half years. In the general index, export goods show a spectacular advance, rising from 100 in 1933 to 173.7 in May, 1938. Import goods rose in the corresponding period from 100 to 138.4, while

commodities for domestic consumption increased from 100 to 134.0 in the same period.

Taking the price of specific items for comparison, kaoliang showed a remarkable advance from MY1.59 in 1934 to MY4.46 per 100 kin in May, 1938. The commodity which showed the least fluctuation was coal which rose from MY10.42 per ton in 1934 to MY12.44 in May, 1938.

Table 9. International Comparison of Wholesale Prices

(Index: 1933=100)

	Hsinking	Dairen	Tokyo	Shanghai	Tientsin	London	New York	Paris
1933 (Aver.)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1934 (")	92.6	102.2	99.0	93.7	91.3	102.9	113.8	94.3
1935 (")	103.4	106.9	103.3	92.6	94.8	106.2	121.4	89.5
1936 (")	106.1	108.4	109.6	104.4	109.9	111.4	122.6	104.3
1937 (")	125.1	124.8	132.7	123.8	129.1	129.1	131.0	132.4
1938 Jan.	125.3	131.5	136.7	134.5	121.1	121.1	122.8	157.7
" Feb.	128.9	134.6	138.9	133.3	145.8	121.0	121.1	158.2
" Mar.	130.1	138.9	140.1	134.1	153.0	118.2	120.8	159.5
" Apr.	133.5	141.1	137.5	137.6	159.4	117.4	119.4	159.5
" May	144.5	148.9	138.7	136.7	159.1	114.7	118.7	165.7
" June	161.7	155.7	141.7	*139.9	172.2	114.7	*118.4	168.3

Note: * Estimate.

Table 10-A. Wholesale Commodity Price Indices in Hsinking

(A)

Average of:	Commodities for domestic consumption (17 Art.)	Export goods (13 Art.)	Import goods (33 Art.)	Raw materials (3 Art.)	Consumers' goods (38 Art.)	Equipment goods (12 Art.)	Farmers' purchases (19 Art.)	Farmers' sales (8 Art.)
1933	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1934	93.6	55.5	90.6	92.9	95.9	93.6	91.5	97.1
1935	103.2	136.7	90.7	94.5	109.3	94.1	99.5	153.1
1936	104.3	147.3	90.7	100.8	112.3	92.4	103.2	157.0
1937	117.0	165.4	113.3	121.4	122.0	139.2	112.0	172.8
1938 (Jan.-June)	129.0	165.2	131.1	138.1	129.9	156.6	128.6	172.7

COMMERCE

Table 10-B

Average of:	Chief staple products (6 Art.)	Miscellaneous cereals (5 Art.)	Foods and beverages (12 Art.)	Textiles (13 Art.)	Metals and metalwares (7 Art.)	Building materials (6 Art.)	Light and fuel (6 Art.)	Miscellaneous (8 Art.)	Average all commodities (53 Art.)
1933	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1934	94.5	92.8	94.0	90.4	92.4	89.8	94.0	93.4	92.6
1935	179.2	101.5	104.1	88.3	92.3	93.9	91.5	93.6	103.4
1936	185.7	115.8	105.6	91.8	92.8	91.2	94.7	96.0	106.1
1937	202.4	134.4	112.5	106.5	161.7	106.6	98.6	112.5	125.1
1938 (Jan.-June)	195.7	189.0	160.6	131.6	181.5	118.7	101.7	129.3	137.3

Retail Price

Retail price of commodities in Manchoukuo 1932, retail price indices were up by roughly 10 to 20 per cent. in the various cities in then have taken an upward turn. Compared to 1936.

Table 11. Wholesale Commodity Prices of Staple Commodities

At Hsinking

(In yuan)

Average for:	Soya Bean (100 kin)	Bean Cake (*1 p.c.c)	Bean Oil (100 k'n)	Kaoliang (100 kin)	Wheat (27.25 kin)	Sugar (1 bag of 135 kin)	Raw Cotton (10 k'n)	Gunny Bag (100 pieces)	Coal (1 metric ton)
1934	2.78	0.90	10.50	1.59	1.35	18.07	5.23	43.44	10.42
1935	4.27	1.32	18.02	3.84	1.42	19.03	6.45	44.66	10.98
1936	5.45	1.72	22.72	3.17	1.47	19.69	7.43	42.95	11.65
1937	5.93	1.89	22.79	3.71	2.07	21.56	7.58	45.39	11.65
1938 Jan.	5.22	1.79	16.50	3.37	2.44	25.10	6.77	49.26	11.65
Feb.	5.15	1.77	15.74	3.62	2.83	28.00	7.16	50.91	11.65
Mar.	5.34	2.79	16.20	3.41	2.74	27.94	7.31	54.78	11.65
Apr.	5.34	1.78	15.91	3.55	2.75	27.20	7.30	48.64	11.65
May	6.21	1.01	18.58	4.46	2.76	28.83	8.51	49.94	12.44
June	6.90	1.87	22.88	5.07	2.78	33.78	11.20	60.11	12.75

Note: * 1 piece = 45 kin; 1 kin = 0.6 kilogram.

Table 12. Retail Price Index

(1932=100)

	Dairen	Ryojun	Yingkow	Fushun	Mukden	Soupingkai	Hsinking	Antung
1930	113.7	115.6	110.8	113.9	114.9	111.2	109.6	112.8
1931	95.1	96.5	92.6	96.0	96.8	95.5	93.1	97.6
1932	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1933	103.6	109.2	112.5	109.9	113.1	111.2	114.7	112.5
1934	110.1	109.9	116.1	113.5	117.1	115.1	120.6	116.7
1935	112.7	110.9	117.4	116.5	119.0	115.9	122.8	119.4
1936	115.4	111.0	115.8	116.7	120.1	115.3	123.3	120.0
1937 Jan.	118.0	116.7	118.2	120.0	123.1	116.9	128.8	124.5
Feb.	118.8	117.0	120.5	122.8	125.6	117.8	128.8	125.5
Mar.	119.4	116.3	120.0	121.9	126.0	118.8	129.6	125.7
Apr.	120.6	117.1	120.4	121.2	126.5	117.9	129.3	125.3
May	120.6	117.6	121.3	120.7	116.6	128.3	128.3	125.2
June	121.6	117.7	121.3	121.9	127.3	116.4	128.3	129.7

References:

- Table Nos.: 1-2 a, 3 b, 4 c, 5-8 d, 9-11 e, 12 d.
- Key: a—Manshu Nichi-Nichi Shimbun-sha.
- b—Department of Industry of Manchoukuo.
- c—Union of Manchuria Import Guilds.
- d—S. M. R. Co.
- e—Central Bank of Manchou.

CHAPTER XVIII

FORESTRY

Distribution of Forest Zone

The forest zones of Manchoukuo principally lie in the northern and eastern sections, namely, in Kirin, Sankiang, Pinkiang, Chientao and Fengtien Provinces, and in some parts of Heiho, Lungkiang and Hsingan Provinces. According to the natural features of the land and artificial divisional environments, these forests zones are divided into ten forest districts, viz.—(1) The Yalu Valley forests, (2) the Tumenkiang Valley forests, (3) the Sungari Valley forests, (4) the Mutankiang forests, (5) the Lalin River Valley, (6) the Sanhsing forests, (7) the forest zone along the Harbin-Suifenho line (8) the Great Hsingan forests, (9) the forest zone along the western division of the North Manchuria Rail-

way line, and (10) the Little Hsingan forests. Excepting the last named forests, these forest zones all occur in the former Kirin and Fengtien Provinces.

Forest Area.—The total forest area of Manchuria, as roughly estimated by the forest authorities of the Manchoukuo Government, is 88,733,000 cho (88,000,000 hectares). Of this area, 21,700,000 cho (22,000,000 hectares) has trees and the rest, or 66,500,000 cho (66,000,000 hectares) is without trees. The volume of standing trees is estimated at roughly 9,167,193,000 koku. Of this volume 5,273,000,000 koku (2,230,000,000 cubic metres) represent broad-leaf trees and 3,894,000,000 koku (1,470,000,000 cubic metres) needle-trees.

Details are tabulated below:—

Table 1. The Wealth of Forests By Hsien
(End of June, 1936)

	Area (100 cho)	Volume of Standing Trees (1,000 koku)		
		Needle-leaf tree	Broad-leaf tree	Total
Hsingan East Province	35,859	753,039	502,026	1,255,065
Hsingan North Province	46,107	968,247	645,498	1,613,745
Sankiang Province:				
Fangcheng hsien	2,824	559,153	111,830	162,746
Tungho "	250	3,600	9,000	12,600
Poli "	1,428	35,986	48,838	84,823
Ilan "	240	1,296	8,208	9,504
Fengshan "	1,080	7,776	36,936	44,712
Tangyuan "	9,795	298,627	386,456	685,084
Huachuan "	2,417	—	121,918	121,918
Paotsing "	2,923	—	147,319	147,319
Fuchin "	15	—	461	461
Suipin "	35	—	1,199	1,199
Jaoho "	1,538	—	52,600	52,600
Futa "	15	—	461	461
Loupeh "	3,052	50,429	138,679	189,108
Total	26,028	453,629	1,063,904	1,517,533
Pinkiang & Mutankiang Provinces:				
Hailun hsien	257	—	7,866	7,866
Acheng "	25	—	767	767
Wuchang "	2,575	10,306	88,067	98,373
Weiho "	1,775	19,170	60,707	79,877
Yenshou "	970	3,492	31,428	34,920
Ningan "	6,596	130,601	296,820	427,421
Muleng "	1,557	5,605	50,447	56,052
Tungning "	1,700	6,120	19,080	25,200
Mishan "	1,570	2,826	48,042	50,868
Hulin "	958	—	29,315	29,315
Mulan "	375	—	11,478	11,478
Chingcheng "	53	191	1,433	1,624
Tehli "	1,751	6,304	63,036	69,340
Suileng "	1,034	3,722	37,224	40,946
Total	21,196	188,338	745,708	934,046

FORESTRY

(Continued)

	Area (100 cho)	Volume of Standing Trees (1,000 koku)		
		Needle-leaf tree	Broad-leaf tree	Total
Lungkiang Province:				
Tungpeh hsien	2,875	41,141	113,137	154,278
Nunkiang "	5,792	121,632	81,088	202,720
Lungchen "	3,157	34,096	142,067	176,162
Total	11,806	196,868	336,292	533,146
Heiho Province:				
Fushan hsien	1,745	28,271	52,681	80,952
Niaoyun "	6,235	157,122	213,239	370,361
Sunho "	915	19,764	31,295	51,059
Chike "	128	691	5,760	6,451
Aigun "	1,057	3,805	53,273	57,078
Fuma "	1,747	36,684	24,456	61,140
Ngoupo "	5,396	113,316	75,544	188,860
Meho "	29,587	621,327	414,218	1,035,545
Total	46,810	980,980	877,465	1,858,445
Kirin Province:				
Tunhua hsien	1,698	27,508	73,353	100,861
Huatien "	4,254	61,258	191,430	252,688
Ngemiu "	3,204	46,138	144,180	190,318
Panshih "	125	—	3,827	3,827
Yungki "	150	—	4,590	4,590
Shulan "	537	1,933	16,434	18,367
Total	9,968	136,836	433,814	510,650
Chientao Province:				
Hunchun hsien	1,150	12,420	35,190	47,610
Wangching "	3,270	35,316	100,062	135,378
Yenki "	2,308	8,309	74,779	83,088
Huolung "	710	6,378	20,448	21,726
Antu "	2,898	73,030	114,760	187,790
Total	10,336	180,352	345,240	475,592
Fengtien Province:				
Kaiping hsien	250	—	7,650	7,650
Pensi "	50	—	1,530	1,530
Hsingking "	25	—	766	766
Hailung "	13	—	400	400
Liuho "	125	—	3,827	3,827
Chinchuan "	173	—	5,296	5,296
Mengkang "	1,543	22,219	61,103	83,322
Huinan "	310	1,674	7,812	9,486
Total	2,489	28,893	88,384	112,276
Antung & Tunghua Provinces:				
Siuyen hsien	135	—	4,133	4,133
Antung "	26	—	796	796
Fengcheng "	50	—	1,541	1,541
Kuantien "	157	—	4,806	4,806
Huanjen "	213	—	6,520	6,520
Tsian "	1,304	—	39,892	39,892
Tunghua "	1,025	677	31,367	32,044
Linkiang "	967	5,224	38,293	43,517
Changpe "	745	8,046	29,502	37,548
Fusung "	1,586	39,967	62,806	102,773
Total	6,208	53,914	219,654	273,568
Jehol Province:				
Chengteh hsien	450	8,100	11,340	19,440
Weichang "	170	—	3,672	3,672
Total	620	8,100	15,120	23,112
Grand Total	217,247	3,894,196	5,272,997	9,167,193

Note: 1 hectare=1.0013 cho. 1 cubic meter=3.59 koku.

Timber Species

Viewed from the standpoint of dendrologists, certain forests of Manchoukuo belong to the same class at those of the northern part of the temperate zone. The principal, however, belong to the frigid zone, being more or less similar to the Hokkaido forests. Some three hundred species of trees are needle-leaved (coniferous) trees, and twenty-one broad-leaved (deciduous)

varieties. Of the conifers, Korean pines (*Pinus koraiensis*) are distributed most extensively through the eastern and northwestern parts of the land. They live longer than any other trees and often grow to several feet in diameter reaching a height of more than a hundred feet. Next to the Korean pines, the species of larch (*Larix Dahurica*) grow straight and tall, challenging the supremacy of the Korean pines, in many places. Of the conifers, firs, spruce and silver firs are found in abundance. Among deciduous trees, there are several kinds of oak, elm, birch, maple, walnut, lime, willow, acacia and poplar. Forests of birch are peculiar to North Manchuria and are found intermingled with other forest growth. Birch forests are found along the North Manchuria Railway lines and over the Hsangan Ranges.

Descriptions by Districts.—According to districts, timbers are broadly divided as follows:—

(1) **Yalu Timber.**—Yalu timber consists of those descriptions which are supplied by the forests in the valley of the Yalu and in the upper course of its branch stream, or the Hun-kian and sent to Antung through these rivers. They represent chiefly needle-leaved trees such as pines, cedars, etc. and 1935 supplied 21% of the total Manchurian output of timber.

(2) **Anfeng Zone Timber.**—The production of timbers along the Anfeng Railway line amounts to about 200,000 koku. They are

SUPPLY AND DEMAND OF TIMBER

Production.—The annual production of timber was 3,800,000 to 3,900,000 koku in the few years preceding the foundation of the Empire. The production decreased considerably in the first two years of the new regime for various reasons. With the growing improvement of various systems and institutions, timber output began to recover from 1934 and registered 6,141,000 koku in 1936.

Consumption.—The average consumption of timber in the five years preceding the founding of the Empire is put at roughly 3,400,000 koku. At the time of the opening of the country timber consumption decreased by over 1,000,000 koku due to the stagnation of various undertakings. With the development of construction works, however, the consumption soon began to increase swiftly reaching 5,000,000 koku in 1933, 6,200,000 koku in 1934 and 6,309,000 koku in 1936. In the past the use of timber had been confined chiefly to construction materials in general, sleepers, spikes, fuel, etc. In view, however, of the recent growth of the forest products indus-

tries, especially the manufacture of pulp, it is almost of the same species as the Yalu descriptions.

(3) **Kirin Timber.**—Kirin timber represents timber that is produced in the upper course of the Sungari and sent to Kirin by water. They are of the same species as the Yalu timber. Output in 1935 represented 31% of the total output of the country.

(4) **Chintu Zone Timber.**—The timber that goes by this appellation indicates the timber that is produced from Laoyeh, Changkwangtsai, Mutanling and Harbin ranges and sent to various stations on the Chintu Line. The amount of production in 1934 was 780,000 koku, which bore as large a proportion as 20 per cent. of the entire output of the country. The species are similar to those represented by Kirin.

(5) **Chientao Timber.**—The Chientao timber is produced in the valleys of the Tumen and its branches and of the Hunchun. It accounted for 6% of the timber output of the country in 1935. The species of the trees are of the same as the Kirin.

(6) **North Manchurian Timber.**—This comprises timber produced in the mountain ranges of Laoyeh, Hsiao-pai, etc., and sent to various points on the Pinsui Line. The production of this group represented 42% of the timber output of the whole country in 1935. Needle-leaved trees also occupy the greater part of the produce.

tries, especially the manufacture of pulp, it is generally observed that timber consumption in Manchoukuo will greatly increase in the future.

Export and Import of Timber.—In the few years preceding the Manchuria incident the foreign trade of Manchuria in timber yearly amounted to 850,000 to 1,400,000 koku in exports and to 500,000 to 850,000 koku in imports, resulting in an export excess of 100-900,000 koku. Directly after the incident the trade considerably shrivelled. Soon after the establishment of the new Empire, however, the demand for timber increased in marked manner due to the growth of various construction works, so much so that even the expansion in timber production as stated above proved woefully insufficient with the result that the country turned from a timber exporter to an importer. Timber imports from Japan proper, Korea and other places sharply increased in 1933 and 1934. Total timber imports in 1937 were valued at ¥13,127,000 while exports of timber, wood and manufactures thereof amounted to ¥3,170,666.

Exports of timber consist chiefly of the Yalu description, the major part going to Korea and a small portion to North China. A modest

quantity of superior grades of Chientao and North Manchurian products is also sent to Japan and China.

Table 2. Demand and Supply of Timber
(In koku)

	Total output	Export	Import	Consumption
1927.	3,885,516	1,411,000	470,500	2,945,016
1928.	5,118,571	1,336,203	852,300	4,634,671
1929.	3,846,971	920,000	831,000	3,757,971
1930.	3,087,589	833,200	685,100	2,949,489
1931.	3,288,151	987,800	668,100	2,948,451
1932.	2,833,683	675,000	442,000	2,600,685
1933.	2,996,956	410,156	1,129,070	3,715,870
1934.	4,120,346	354,234	1,328,166	4,894,278
1935.	5,018,300	743,764	922,589	5,197,125
1936.	6,141,437	613,199	781,416	6,309,654

Note: 1 cubic metre=3.5937 koku.

Table 3. Investment in Forestry Industry
(1935; MY1,000)

Jurisdiction:	
Manchoukuo	3,843
Japanese	18,603
Chinese	87
Total	22,533

Table 4. Output Value of Timber, Fagot and Charcoal
(MY1,000)

	1934	1935
Timber	33,290	39,353
Fagot	1,277	10,262
Charcoal	355	717

Table 5. Outline of Lumber Producers' Guilds in Manchoukuo
(End of 1937)

(Member Companies of Association of Manchuria Lumber Producers' Guilds)

	Member cos.	No. of mills	Capital (¥1,000)	Lumbering machines	No. of workers	Lumbering capacity per day (Cub. ft.)	Output in 1937	
							Volume (1,000 Cub. ft.)	Value (¥1,000)
Harbin	34	4	2,000	80	839	19,800	3,200	4,300
Tunhua	25	3	712	40	246	7,900	810	1,025
Tumen	18	4	3,040	60	281	8,100	1,212	1,429
Fushun	2	2	100	11	54	1,810	315	4,725
Anshan	4	..	..	..	..	..	..	..
Antung	23	1	1,000	229	1,241	30,000	4,800	5,182
Kirin	68	7	2,790	133	939	19,300	4,367	5,885
Hsinking	25	10	1,515	145	939	24,000	4,814	6,643
Mutankiang	20	4	1,155	120	1,036	22,460	2,473	3,032
Lungtsing	16	2	600	39	415	4,790	5	8
Fengtien	13	5	4,274	64	284	8,800	1,750	2,620
Total	248	42	17,185	921	6,274	146,960	23,746	30,596

Table 6. Forestry Offices in Manchoukuo
(Oct., 1937)

Forestry Office	Locality
Chaoyangchen	Fengtien Province
Antung	Antung
Tunghua	Tunghua
Fusung	"
Antu	"
Hunchun	"
Yenki	Chientao
Tunhua	"
Huatien	"
Kirin	Kirin
Wuchang	"
Harbin	"
Mutankiang	Pinkiang
Muling	"
Poli	Mutankiang
Ilan	"
Fangcheng	Sankiang
Tangyuan	"
Tungho	"
Suihua	"
Hailun	Pinkiang

(Continued)		Locality	
Forestry Office			Province
Pehanchen	"	Lungkiang	"
Heiho	"	"	"
Nunkiung	"	"	"
Peketu	"	Hsingan	"
Sanho	"	"	"
Hailar	"	"	"
Halunaerhshan	"	"	"
Yuanchang	"	Jehol	"

Timber Output by Localities

Notable in recent years is the growing importance of North Manchuria as a producer of timber. While in 1932 North Manchuria accounted for only 23% of the total timber output of the country her share has been rapidly advancing, that for 1935 being 42%. The position of the Yalu river valley as a timber producer has shown a marked decline. In 1932 it produced 40% of the total timber output of the country, but by 1935 its share was down to 21%.

Investment in Forestry Industry.—Total investments in the forestry industry as at the end of 1935 stood at ¥22,533,000. Japanese enterprises accounted for ¥18,603,000 of the total.

Value of Timber Output.—The value of output of timber rose from ¥33,290,000 in 1934 to ¥39,353,000 in 1935. While figures for the industry as a whole for 1937 were not available

Table 8. Timber Output by Localities
(1,000 koku)

	South Manchuria				Total	
	Yalu river valley	Kirin	Chientao	North Manchuria		
1932.....	Needle leafed	849	646	225	561	2,281
	Broad leafed	222	96	25	62	406
	Total	1,072	742	250	624	2,687
1933.....	Needle leafed	878	774	278	579	2,608
	Broad leafed	170	115	42	64	291
	Total	1,048	890	420	643	3,000
1934.....	Needle leafed	1,010	1,171	301	1,116	3,599
	Broad leafed	101	175	33	124	433
	Total	1,111	1,346	335	1,240	4,033
1935.....	Needle leafed	922	1,346	280	1,857	4,405
	Broad leafed	138	201	31	206	576
	Total	1,060	1,547	311	2,063	4,981

Pulp Industry

In view of the heavy demand for pulp for paper manufacturing as well as for rayon and other products, the government has been encouraging the pulp industry. There were in 1937 five large pulp companies with an aggregate nominal capital of ¥50,000,000 and with an annual production capacity of 72,000 metric tons. These companies were affiliated with the Japanese interests of Oji, Terada Kawanishi and

at the time of this writing, the member companies of the Association of Manchuria Lumber Producers' Guild, which accounts for the larger portion of timber output in the country, felled 23,746,000 cubic shaku of timber, valued at ¥30,596,000. The Guild in 1937 consisted of 248 member companies with an aggregate capitalization of ¥17,185,000. They owned 921 lumbering machines and employed 6,274 workers. The daily lumbering capacity of the member companies was given as 146,960 cubic shaku.

Table 7. Percentage of Timber Output by Localities

	South Manchuria			North Manchuria	Total
	Yalu river valley	Kirin	Chientao		
1932....	40	28	9	23	100
1933....	35	30	14	21	100
1934....	28	33	8	31	100
1935....	21	31	6	42	100

Ohkawa. The Government is reported to have allotted to each company an annual production quota of 10,000 metric tons in 1938 and 15,000 metric tons in the succeeding years.

There are many kinds of timber used for the manufacture of pulp, but by far the most extensively used are acerose trees, chiefly ezomatsu (*Picea ajanensis*) and todomatsu (*Abies sachalinensis*). In Manchuria the Chinese cypress and white-firs (*Abies firma*) are especially used.

The Department of Industry of the Manchoukuo Government in 1935 estimated the volume of acerose trees at 5,300 million koku (1 koku equalling 120 board feet) and that of latifoliate trees at 8,000 million koku. Taking these figures as the basis for computation, it is deduced, in considering the Government's forestry preservation policy, that about 140 million koku (in weight 3.5 koku is equal to 1 metric ton) of pulp material can be obtained from the total amount of ezomatsu and todomatsu in the country, estimated at 570 million koku. If 70 years is regarded as the generation period (the period which a tree requires to attain sufficient growth to be used as pulp material) it is estimated that annual production of pulp material from ezomatsu and todomatsu actually possible will be 2,050,000 koku. Even if 60 years is considered as the generation period, the possible amount would be only 2,390,000 koku or 670,000 tons. Thus in order to meet the shortage of over 420,000 tons in Japan, other trees besides the foregoing ezomatsu and todomatsu will have to be utilized for pulp manufacturing.

Besides wood pulp, reeds growing on the banks of the Liao, Yalu and Sungari rivers and in the Takushan district, Antung Province, have in recent times come to be used as raw material for the pulp industry. The pioneer in this field is the Kangte Reed Pulp Company in Yingkou, established by the Kanegafuchi Spinning Company of Japan in 1936. Excellent pulp is being manufactured from reeds by this company. A process of manufacturing staple fibre from soya bean stalks has also been discovered and is being employed by the Manchuria Bean Stalk Pulp Company, which was founded at Kaiyuan in September, 1937.

From the standpoint of management, the pulp industry in Manchuria is fairly inferior to that in Karafuto because the high cost of wood, the poor quality of materials and transportation inconveniences make it considerably difficult to place the Manchurian industry on a paying basis. Moreover, such factors as electric power, water utilization, transportation facilities and chemical materials are by no means favourable to the industry.

Table 9. Pulp Companies in Manchoukuo and Kwantung
(End of May, 1937)

	Nominal Capital (¥1,000)	Capacity per year (M. tons)	Affiliation	Factories
Yalu Seishi Pulp Co.	5,000	12,000	Oji Interest	Antung
Manchuria Pulp Co.	10,000	15,000	Terada "	Hualin
Nichi-Man Pulp Co.	10,000	15,000	Oji "	Tunhua
Toyo Pulp Co.	10,000	15,000	Kawanishi "	Shihshu
East Manchuria Rayon Pulp Co.	15,000	15,000	Ohkawa "	Kaishantun
Total	50,000	72,000		

Forests in Kwantung Province

On the establishment of the Government of Kwantung, the problem of reforestation was immediately taken up, and as an initial step, nursery farms were established at Port Arthur, Dairen and Chinchou with an aggregate area of 400 chobu or 1,000 acres, for the purpose of supplying saplings for the work undertaken by the Government. In order to encourage the general public in this useful undertaking, the Govern-

ment rented forest land, free of charge, to those desirous of growing timber, supplying seeds and young trees gratis. Moreover, regulations have also been issued for the protection of forests. These measures have had the desired effect, and, with the increasing interest taken by the public in the matter of reforestation, many nursery farms owned by villagers have been established. The total area of forest and hills in Kwantung Province is as follows:—

Table 10. Area of Forests in Kwantung Province
(In cho)

Locality	Government owned	Private owned	Total
Port Arthur	17,887	5,093	22,979
Dairen	16,365	354	16,719
Chinchou	12,755	6,415	19,170
Pulantien	14,085	8,372	22,437
Pitzuwo	5,463	3,665	9,128
Total at end of 1936	66,535	23,900	90,434
Total at end of 1935	72,457	20,422	92,878
Total at end of 1934	78,138	15,745	93,883

(Continued)

	Government owned	Private owned	Total
Total at end of 1933	78,701	15,445	94,146
Total at end of 1932	78,613	15,523	94,136
Total at end of 1931	78,613	15,523	94,136
Total at end of 1930	79,012	15,660	94,672

Note: The above figures do not include the military zone.

Table 11. Area of Afforestation in Kwantung Province

Locality	(In cho)			
	Government	Public	Private	Total
Port Arthur	—	27.00	26.85	53.85
Dairen	46.84	4.50	30.44	81.78
Chinchou	1.74	10.66	40.48	52.88
Pulantien	—	163.82	154.00	322.82
Pitzuwo	—	34.95	172.18	207.13
Total at end of 1936	48.58	240.94	428.96	718.48
Total at end of 1935	110.97	237.07	648.44	996.49
Total at end of 1934	277.55	493.04	723.75	1,494.35
Total at end of 1933	303.18	701.78	685.18	1,690.15
Total at end of 1932	301.85	759.77	952.45	2,014.08
Total at end of 1931	757.62	702.61	979.11	2,439.35
Total at end of 1930	753.75	866.50	654.37	2,094.62

Table 12. Number of Forest Fires by Provinces

(1935)							
	No. of Cases	Area (Sq. m.)	Losses (M¥)		No. of Cases	Area (Sq. m.)	Losses (M¥)
Kirin Sheng	5	21,602	1,800	Chientao Sheng	3	5,000	280
Lungkiang	3	1,916	1,527	Antung	7	7,000	772
Heiho	1	—	160	Fengtien	36	7,165	14,813
Sankiang	80	4,612	799	Chinchow	—	—	—
Pinkiang	20	16,501	5,940	Jehol	2	857	100
				Total	159	64,653	26,191

References:

Table Nos.: 1 a, 2-4 b, 5 c, 6-8 a, 9 d, 10-11 e, 12 f.

- Key: a—South Manchuria Railway Co.
- b—Department of Industry, Manchoukuo.
- c—Manchuria Lumber Producers' Association.
- d—Report from each co.
- e—Kwantung Bureau.
- f—Civil Affairs Department, Manchoukuo.

CHAPTER XIX
FISHERIES

GENERAL

Although the total area of Manchoukuo is more than 1,300,000 square kilometers, the coast line is only about 700 kilometers in length (excluding that of the Kwantung Leased Territory), and the coast is made up of small shallow bays, which readily freeze in winter, and the localities are not generally favourable for fishing. Only along the coast of the Kwantung Leased Territory has the fishing industry developed to some extent, for Dairen and other large consuming centers are near at hand and transport is easy. Recently not only have Japanese residents in the Leased Territory been engaged in fisheries, but also some fishing boats have come from Japan proper to the Liaotung coasts to give a stimulus to the improvement of the old-fashioned Chinese method of fishing.

In Manchoukuo there are several large rivers and lakes, and a large amount of fresh water fish are caught annually; particularly in North Manchuria, fresh water fishing holds an important economic position.

As for the catches of fish in Manchoukuo, complete statistics are still lacking. It is computed that the catches of fresh water fish reach about five million yen a year. In regard to salt water fish, however, the figures obtainable are not entirely groundless. From the former regime till June, 1934 there was a fishing bureau at Yingkow, which kept in touch with fishermen and yearly published statistics. In view of the fact, however, that whatever its formal function, this bureau was intended to impose taxes upon the fishermen and fish mongers, and that the authorities levied exorbitant rates and were very rigorous in their enforcement, it may be presumed that many false notifications were filed with the bureau by fishermen and fish mongers. According to the returns

published by that bureau, the annual average amount of catches of salt water fish in Manchoukuo is estimated at about half the value of catches of fresh water fish or ¥2,500,000.

SALT WATER FISHERIES

Along the Coast of Pohai or Gulf of Pechili

The fishing district in the eastern coast lies for 266 kilometers extending from north of Fu-hsien, Kaiping to Yingkow, while that in the northern district lies for 533 kilometers extending from Panshan, Chin-hsien, Chihhsi, Hsingcheng to Suichung, and the species of fish found in the eastern coast are hair-tail, sea-cucumber, oyster, guchi, scombreomorus, prawn, crabs, etc., and those found in the western are prawn, shrimp, crab, hair-tail, seabream, clam, etc.

Along the Coast of Yellow Sea

Scarcity of fish and the freezing of the coast during the winter have prevented any notable development. Species of fish found there are prawn, pseudosaiena, guchi, lateolabrac, scombreomorus, shark, fin and hair-tail. The fishing district is about 104 kilometers, extending from Antung, Fengcheng to Chuangho. The waters of these seas are not suited for the habitation of fish as they are for the most part shallow and of low salinity, and freezes easily in winter. The sea-bottom is generally flat and covered with mud as though the plains of Manchoukuo had been submerged. On stormy days the seas are disturbed to their bottoms, turning the water yellowish. The annual catch in the Gulf of Pechihli does not exceed 1,000,000 yen, while the Yellow Sea at present yields less than 300,000 yen. The permanent fishermen are scarce. Generally they carry on fishing combined with farming.

Table 1. Value and Volume of Catches of Salt Water Fish in Manchoukuo (1935)

	Volume (Kin)	Value (Yuan)
(1) Huanghai Sea (Yellow Sea)		
Tatungkou Fishery Guild	1,576,011	130,087
Pehtsingtzu	2,230,989	73,762
Takushan	3,092,662	149,136
Chingtuitzu	1,389,553	48,928
Chuangho	1,645,967	178,660
Huayuankou	2,586,456	77,821

(2) Pohai Sea	Volume (Kan)	Value (Yuan)
Langlangkung " "	1,148,529	38,624
Yungningchen " "	435,893	21,040
Hsiungyueh " "	586,165	21,759
Wanghaisai " "	709,056	31,231
Hsihotao " "	2,216,270	104,440
Yingkow " "	7,614,380	482,936
Yingkow Haicheng Fishery Guild	267,287	12,002
Ehrchiehkou " "	7,798,626	515,119
Panshan " "	947,335	34,711
Hsihaikou " "	1,491,840	112,001
Hulutao " "	377,092	24,478
Hsingcheng " "	612,271	33,323
Suichung " "	376,252	20,721
Grand Total	36,102,934	2,110,779

RIVER FISHERIES

South Manchurian Rivers

Yalu.—Though abundant in fish, the fishing districts are restricted by the geographical features and the industry is undeveloped. Species of fish found there are carp, eel, prawn, gray mullet, turtle, lateolabrax, sharks, etc.

Liao.—Fish is scarce and only sufficient to supply local needs. Species of fish are carp, prawn, eel, trout, crucian, pseudorasbora, turtle, etc.

North Manchurian Rivers

Principal centres are the 1st and 2nd Sungari, Ussuri, Amur, Nonni Rivers and Dalai-nor, Buir-nor and Chingpo Lake. Many varieties of fish are found here in abundance, and the industry is active even in winter. Principal species of catches comprise carp, crucian, sheet-fish, etc.

According to the latest available statistics,

Table 3. Exports & Imports of Marine Products

Year	Import		Export		Excess of Import		% Import	
	Quantity (Piculs)	Value (Hk. Tls.)	Quantity (Piculs)	Value (Hk. Tls.)	Quantity (Piculs)	Value (Hk. Tls.)	Import	Export
1928	497,105	4,501,101	105,763	720,208	391,342	3,780,893	86.2	13.8
1929	489,637	4,403,861	160,626	859,229	239,011	3,544,632	83.7	16.3
1930	375,284	4,415,827	107,413	725,010	267,871	3,690,817	85.9	14.1
1931	158,228	2,974,735	138,823	1,065,842	19,405	1,908,893	73.6	26.4
1932	324,297	7,394,836*	99,826	1,947,744*	224,471	5,447,092*	79.1	20.9
1933	460,411	8,169,789*	122,839	480,780*	337,572	7,689,009*	94.9	5.1
1934	401,315	8,237,951*	64,686	406,173*	336,629	7,831,778*	95.3	4.7
1935	381,259	8,552,935*	71,556	543,429*	309,703	8,009,506*	94.0	6.0
1936	.....	12,004,674*	.....	356,634*	.....	11,648,040*	97.3	2.7
1937	.....	20,584,738*	.....	422,192*	.....	20,162,546*	97.9	2.1

Note:—* Denotes MY.

Kwantung Leased Territory.—This district has recently shown a great development in the fishing industry. As the fishing area is very

the estimated amount of catches of river fisheries aggregated as follows:—

Table 2. Fresh Water Catches (1935)

	Catches (1,000 kin)	Value (1,000 yen)
Nun-kiang	55,000	2,750
Sungari River	28,000	2,000
2nd Sungari River	2,530	
Mutan-kiang	300	
Kingpo Lake	170	
Wusuli River	2,600	
Amur River		750
Liao-ho	4,000	
Hsingkai Lake	50	
Water Course of Hulun Lake	1,750	
Total	94,400	5,500

Note:—Kiang and ho means River.

The exports and imports of aquatic products of Manchoukuo for the last few years is appended:—

large and large markets are close at hand, the situation is favourable for deep sea fishing. Available statistics are given below:—

FISHERIES

Table 4. No. of Fishing Households and Population in Kwantung Province Permanently Occupied

Year	Japanese		Manchoukuoans		Total	
	No. of households	Population	No. of households	Population	No. of households	Population
1929	82	141	5,694	19,664	5,776	19,805
1930	89	328	5,648	14,583	5,737	14,911
1931	87	372	5,625	14,592	5,712	14,964
1932	95	419	5,299	12,108	5,394	12,527
1933	114	450	4,921	13,065	5,035	13,515
1934	110	449	4,891	12,942	5,001	13,391
1935	105	472	4,749	12,955	4,854	13,427
1936	106	523	4,541	12,604	4,647	13,127

Year	Partially Occupied		Total
	No. of households	Population	
1929	9	15	10,261
1930	27	38	3,822
1931	30	29	9,413
1932	24	24	8,442
1933	20	27	5,739
1934	20	22	9,641
1935	12	12	9,947
1936	23	23	9,995

Table 5. No. of Fishing Crafts in Kwantung Province

Year	Junks	Sampans	Japanese type	Foreign type	With engines	Transport boats	Total
1930	1,093	4,791	161	—	115	68	6,229
1931	1,092	4,679	179	1	133	72	6,155
1932	965	4,839	142	—	150	64	6,160
1933	911	4,898	131	—	162	69	6,171
1934	875	4,931	115	—	167	59	6,147
1935	858	4,823	106	—	170	149	6,108
1936	854	4,719	115	—	176	113	5,977

Table 6. Marine Catches Classified in Kwantung Province

	1932		1934		1935		1936	
	Quantity (Kwan)	Value (Yen)	Quantity (Kwan)	Value (Yen)	Quantity (Kwan)	Value (Yen)	Quantity (Kwan)	Value (Yen)
Sea-bream	796,695	183,817	29,708	169,077	61,922	228,800	45,142	161,666
Cod	2,621,952	734,298	1,399,273	394,703	1,328,531	381,160	1,832,430	507,387
Hair-tail	917,142	349,976	1,339,533	436,578	1,222,958	395,156	1,100,224	388,116
Guchi	2,444,517	747,858	3,492,236	1,175,574	3,878,583	1,291,618	5,015,272	1,715,841
Scombreomorus	385,721	357,444	865,151	360,808	375,278	357,998	281,676	318,957
Halibut	1,594,551	440,181	1,423,899	597,651	1,938,233	764,856	2,298,037	796,281
Lateolabrax	58,580	46,302	53,307	62,830	67,619	77,679	68,213	74,744
Ratoidei	522,975	101,361	755,268	124,424	881,173	155,634	1,078,683	164,750
*Lepidotrigla	447,906	94,381	342,021	117,802	579,898	160,977	625,279	147,682
Sea-cucumber	131,967	102,850	78,444	39,986	134,151	60,635	98,452	47,045
Prawn & shrimp	334,289	407,061	403,892	662,243	286,268	595,830	260,245	537,988
Other fishes & shells	1,631,740	592,779	2,041,897	874,868	1,760,855	743,873	.....	.....
Sea Weeds	5,387	501	440	477	642,507	314,632	.....	.....
Total	11,171,422	4,104,259	11,718,943	5,016,444	12,657,974	5,518,697	15,157,004	5,783,860

Note: * Includes gurnet.

Table 7. Amount and Value of Marine Manufactures in Kwantung Province

Year	Preserved and dried articles		Finished articles		Total	
	Quantity (Kwan)	Value (Yen)	Quantity (Kwan)	Value (Yen)	Quantity (Kwan)	Value (Yen)
1929	1,657,245	1,141,895	99,351	192,343	1,774,596	1,334,238
1930	1,623,218	1,151,380	84,790	188,194	1,708,008	1,339,574
1931	1,562,667	911,492	86,783	189,839	1,649,450	1,101,331
1932	1,500,213	959,782	85,074	201,654	1,585,287	1,161,436
1933	1,588,508	965,482	85,907	214,942	1,674,415	1,180,424
1934	914,741	798,130	88,876	223,074	1,003,617	1,021,204
1935	1,056,159	667,429	87,224	210,010	1,143,383	877,439
1936	911,643	625,092	92,491	225,127	1,004,134	850,217

Salt Manufacture

The salt manufacturing industry of Manchoukuo dates back to 1862 when the first salt field was laid out at Erhtaokou, Kaipingsien. After that those salt fields were gradually opened along the coast of South Manchuria and particularly of the Liaotung Peninsula, but owing to the maladministration and neglect by the Chinese and Russian authorities the industry languished.

The solar evaporation process which is employed in Manchuria is well suited to the climate and very moderate in cost in comparison with that used in Japan. Early perceiving the prospective contribution of the production of Manchurian salt to the salt policy of Japan, the authorities of the Kwantung Bureau have made utmost possible efforts for the encouragement and improvement of the industry. As a result, salt production in Kwantung Province has considerably increased. In other parts of Manchuria, however, the industry was seriously affected by exorbitant taxes, representing many times production cost during the former regime. Since the Manchuria incident, the spirit of the Japan-Manchoukuo economic bloc has been emphasized in regard to salt manufacture as in the case of other industries. Thus, in conjunction with the Kwantung authorities, the Manchoukuo Government has given close atten-

tion to salt policy. The export of salt amounted to 9,971,000 piculs, which was valued at ¥7,236,000 for the year 1937. Compared with 1936 the amount of exports showed an increase of 3,226,000 piculs. By far the largest share, or 9,254,000 piculs were exported to Japan. Exports to Chosen followed with 714,349 piculs, while China took 2,652 piculs. Exports to other countries, which was 233,521 piculs in 1936 was nil in 1937.

The area of salt fields in Manchoukuo is listed below:—

Table 8. Number, Area, etc. of Salt-Fields in Manchoukuo (End of 1936)

Salt Manufactory	Number	No. of Workers		Area (Chao)
		Spring	Autumn	
Yingkai	1,156	2,763	1,471	6,290
Fuhsien	945	2,155	947	4,288
Chuangho ..	304	787	493	2,174
Chinh sien	221	578	376	545
Hsingsui	188	688	467	649
Panshan	266	299	181	732
Total	3,076	7,270	3,935	14,678

Salt production in Manchoukuo in recent years is tabulated as follows:—

Table 9. Salt Production in Manchoukuo

Name of Salt Field	Production (kin)				
	1932	1933	1934	1935	1936
Yingkai	236,959,814	316,301,874	102,453,471	293,428,218	227,495,880
Fuhsien	105,743,017	160,607,566	135,298,438	269,016,719	298,429,271
Chuangho	999,860	7,143,172	11,607,802	33,847,520	33,937,598
Chinh sien	14,058,020	14,812,468	3,454,413	8,568,299	26,786,634
Hsingsui	6,711,732	22,012,402	13,158,060	27,322,052	26,468,261
Panshan	5,613,248	6,444,183	14,474,129	28,333,026	7,384,768
Total	370,085,691	527,321,665	280,446,313	660,515,834	620,502,416

Salt Consumption.—Salt consumption in Manchoukuo in recent years specified according to the salt fields is given below:

Table 10. Salt Consumption in Manchoukuo

Name of Salt Fields	Consumption (kin)				
	1932	1933	1934	1935	1936
Yingkai	213,672,789	215,366,702	214,863,613	244,430,690	290,644,380
Fuhsien	104,312,121	171,177,839	252,716,676	186,214,141	274,928,112
Chuangho	12,712,674	11,540,777	22,692,339	29,034,966	39,454,584
Chinh sien	41,904,653	19,636,894	25,104,916	21,908,332	40,951,546
Panshan	20,705,390	2,316,668	7,994,064	6,414,368	8,966,192
Hsingsui	7,532,250	8,028,443	16,350,067	16,159,528	31,971,081
Total	400,791,508	428,067,323	539,721,675	504,162,028	686,905,903

Organization of a Salt Co.—The Manchuria Salt Industry Company, a joint Japan-Manchoukuo enterprise, whose organization had long been under negotiation between the Government of Manchoukuo and influential Japanese industrial interests, was formally organized on

April 27, 1936 and opened to business on May 1, with the Head Office at Hsinking.

The company, which is to undertake the exploitation of the salt resources of Manchoukuo, is capitalized at MY5,000,000, of which MY1,250,000 is taken up by the Manchoukuo Government and the remainder by Japanese interests. Under the supervision of the Department of Industry of Manchoukuo, the company is engaged exclusively in the production, sale and exportation of Manchurian salt.

According to the company's programme extending over eight years, 1,400 hectares of salt-fields will be developed in the first four year-period and 2,200 additional hectares in the latter four years.

With the completion of the eight year programme, 143,000 tons of salt will be produced by the company in the new fields in one year, and the other existing salt-fields will produce 123,000 tons annually, inclusive of 29,000 tons, which represent the increase after the existing fields have been improved in eight years. All

the salt output amounting to 266,000 tons by 1944 will be shipped to Japan.

The Japanese interests investing in the company comprise: Oriental Development Co., South Manchuria Railway Co., Dai-Nippon Salt Industry Co., Tokuyama Soda Co., Asahi Glass Mfg. Co., Japan Soda and Bleaching Powder Manufacturers' Association.

Kwantung Province.—In order to meet a shortage of salt supply in Japan proper and Korea salt fields began to be opened up in Kwantung Province many years ago. As the solar evaporation process is employed, salt output depends considerably upon weather conditions and so differs according to years. Salt output which was over 692,936 koku in 1930, rose to 1,405,025 koku in 1935. In accordance with a scheme for increased production provisions have been made to extend the capacity of the industry to a half of that industry in Japan proper.

The area of salt fields in Kwantung Province is tabulated below:—

Table 11. Area of Salt Fields in Kwantung Province (End of 1936)

	Japanese		Manchoukuoans		Total	
	No.	Area (tsubo)	No.	Area (tsubo)	No.	Area (tsubo)
Port Arthur	52	3,307,260	21	419,914	73	3,727,174
Dairen	3	117,510	1	12,383	4	129,893
Chinchou	—	—	9	244,499	9	244,499
Pulantien	263	11,253,870	8	375,330	271	11,629,200
Pitzuwo	254	9,787,650	48	1,552,260	302	11,339,910
Total	572	24,466,290	87	2,604,386	659	27,070,676
Total for end of 1935	569	23,325,195	87	2,634,392	656	25,959,587
Total for end of 1934	508	18,711,961	86	2,527,832	594	21,239,793
Total for end of 1933	527	18,629,789	97	2,610,002	624	21,239,793
Total for end of 1932	527	18,499,781	97	2,691,573	624	21,191,354

Table 12. Salt Production in Kwantung Province (1936)

	Japanese		Manchoukuoans		Total	
	Volume	Value	Volume	Value	Volume	Value
Port Arthur	236,542	709,627	32,764	101,568	269,306	811,195
Dairen	2,330	10,485	480	2,016	2,810	12,501
Chinchou	—	—	10,164	43,705	10,164	43,705
Pulantien	413,085	1,280,564	21,600	62,640	434,685	1,343,204
Pitzuwo	355,153	1,207,521	75,337	263,680	430,490	1,471,201
Total	1,007,110	3,208,197	140,345	473,609	1,147,455	3,681,806
Total for 1935	1,212,370	3,964,284	192,655	627,110	1,405,025	4,591,394
Total for 1934	565,537	1,909,718	127,258	480,397	692,795	2,390,116
Total for 1933	717,774	2,543,966	170,920	654,932	888,694	3,198,898
Total for 1932	497,991	1,097,541	127,251	302,320	625,242	1,399,861

Table Nos.: 1-2 a, 3 b, 4-7 c, 8-12 d.
Key: a—Department of Industry, Manchoukuo.
b—Annual Return of Foreign Trade.
c—Kwantung Bureau.
d—S. M. R.

CHAPTER XX MINING

Mining has been one of the most successful industries undertaken in Manchoukuo. The country's share in natural resources is considered to be extremely large and with proper operations it is believed that revenue from this industry can be multiplied several times from that obtaining at present. From investigations made heretofore it is reliably known that the country has a very large supply of coal, iron ore and oil shale. There are also strong indications that gold and magnesite deposits are vast. The most reliable estimates on the principal mineral resources of Manchoukuo are the following:

Table 1. Mineral Resources (1938)

	Metric tons
Coal	11,437,265,000
Iron Ore	1,513,790,000
Oil Shale	7,628,000,000
Magnesite	1,130,000,000
Fire Clay	100,000,000

	Metric tons
Alumina Shale	25,318,000
Gold Ore (yen)	6,000,000,000

There are reasons to believe that the country is also rich in deposits of steatite, dolomite, quartzite, limestone, fire clay, silica, lead and marble but the extent of such deposits is still unknown. Authorities are united in the belief that Manchoukuo is favoured with rich resources of gold ore, especially along the upper reaches of the Amur River and in certain regions of the Sungari, Nonni, Yalu and Luho rivers.

In contradistinction to the rich mineral resources of the country, the mining operations that are being carried on are still small in scale. A number of projects has been formulated to exploit the resources on a larger scale, but due to the Sino-Japanese hostilities progress in this direction has been slow.

The output of minerals in recent years is tabulated as follows:

Table 2. Mining Output (Metric tons)

	1930	1931	1932	1933	1934	1935	1936†
Iron Ore	832,229	936,529	1,041,613	1,176,643	1,217,606	1,576,178	2,624,688
Pig Iron	348,054	342,270	368,181	433,523	500,180	622,826	633,393
Sulphuric Iron Ore	3,028	3,919	3,620	1,671	7,700	9,110	5,798
Lead Ore	—	—	—	—	269	4,685	3,634
Copper Ore	840	—	—	—	—	—	—
Manganese Ore	609	270	60	750	653	600	355
Gold Alluvial Gold (in yuan) ...	39,400	29,890	6,434	17,811	463,639	1,886,895	3,954,969
Coal	10,179,220	9,124,064	7,106,143	9,062,604	10,542,728	10,944,234	13,606,000
Coke	485,321	418,625	416,305	476,278	575,518	702,867	—
Oil Shale	981,004	1,245,094	1,412,554	2,683,440	2,130,688	3,436,648	—
Crude Oil	47,815	61,081	70,631	87,076	58,231	120,299	—
Magnesite	29,016	36,034	55,386	71,376	78,943	156,311	191,146
Fire Clay	53,664	35,476	51,799	112,070	78,911	142,912	147,494
Soapstone	25,726	42,890	44,316	62,430	75,410	70,572	79,250
Zechstein	116,925	97,777	89,906	165,845	166,361	169,750	—
Limestone	668,489	542,003	477,350	691,040	635,760	846,943	601,601
Asbestos	110	171	120	106	119	70	—
Silica	20,000	22,327	26,989	35,592	154,930	148,754	—
Felspar	500	868	1,781	5,600	3,979	29,874	—
Calcite	1,000	304	875	1,185	188	490	—

Note: * In grams.
† Estimate.

Mining Policy

The exploitation of mineral resources will be carried out in accordance with the following policy:

1. Coal mining will be controlled by the Government to secure rational exploitation, cheap supply of fuel, development of productive industries and increased exports.

2. Special corporations of a semi-official nature will be formed for the investigation, management and exploitation of such mines as are essential to military purpose or national defence.

3. The management of State-owned gold and alluvial gold mines will be entrusted to those special companies, while proper guidance and assistance will be given by the authorities to private gold or alluvial gold mines.

With the foregoing policies in view, the Government has been readjusting various mines and conducting survey regarding the economic value and other conditions of the mines. On the other hand, it has established the Manchuria Petroleum Company, the Manchuria Colliery Company and the Manchuria Gold Mining Company to secure a rational management and development of the oil and other mineral industries. Conforming with the general policy of recognizing the validity of the mining concessions obtained under the old regime as well as of the mining applications filed up to the present since the founding of the new State, provided they do not conflict with existing laws and regulations, the Government is examining the old-concessions permits and studying the actual conditions of the various mines as well as the payment of taxes by the mines.

Legal Minerals

On August 1, 1935 the Manchukuo Government issued a new mining law and related laws and orders, which were put into force on September 1, 1935. The following 40 minerals are provided for by the laws as legal minerals:—

Gold ore, silver ore, *platinum ore, copper ore, *lead ore, *zinc ore, *tin ore, *iron ore, *antimony ore, *aluminum ore, *nickel ore, cobalt ore, *iron sulphide ore, chrome ore, *manganese ore, bismuth ore, *tungsten ore, *molybdenum ore, *quick silver ore, arsenic ore, *phosphorous ore, sulphur, *black lead, *coal, *petroleum, asphalt, oil shale, limestone, muscovite, *magnesite, fluor-spar, felspar, *fire-proof clay, barytes, *nitre, gypsum, silica, *steatite, *asbestos, mica.

Note: The minerals marked with the asterisk are not to be left to uncontrolled operations by private enterprise for the protection of natural resources or for national defence.

The former mining regulations and the Japanese Mining Law divide mining privileges into prospecting and mining, but in reality the system of granting prospecting privileges does more harm than good to the development of the mining industry. In consideration of this fact, the new Mining Law limits mining privileges purely to mining. In order, however, to encourage prospecting and mining, the above law contains provisions reducing the mine-lot tax by 50 per cent for the period of three years after obtaining mining privileges.

In view of the vastness of the mineral reserves of the country it is the policy of the Government to welcome foreign investments in the mining industry. From this standpoint it is provided in the Mining Law that foreigners may also engage in mining if they obtain special permission from the Minister of Industry.

From the viewpoint of national defence and preservation of natural resources, the Law forbids unsystematized mining by private interests, stipulating that application for mining may be restricted by designating the districts or minerals concerned by Imperial Ordinance.

For the purpose of controlling exploitation of the important mineral resources, the Government has established Mining Inspectorates at Hsinking, Mukden, Tsitsihar and Jehol City as local administrative organs under direct control of the Department of Industry.

(For full text of Mining Law refer to Page 958, Japan-Manchoukuo Year Book, 1936 issue).

Special Mining Corporations

Since the various rights previously held by Japan in Manchuria were accorded full and effective protection by the Manchoukuo Government upon its inception, four major special mining corporations have been established under joint sponsorship of the Department of Industry and the South Manchuria Railway Company, with the latter furnishing the greater part of the capital. Through these concerns, a rational exploitation of the vast mineral resources of the country under State control is being accomplished. These are the Manchuria Gold Mining Company, the Manchuria Coal Mining Company, the Manchuria Petroleum Company and the Manchuria Mining Development Company, details of which are given elsewhere in this chapter.

COAL

Manchoukuo's most important mineral product is coal. The coal deposits of the country in 1937 were estimated at 11,437,265,000 metric

tons by the Research Bureau of the S.M.R. The deposits classified by provinces are as follows:—

Table 3. Coal Deposits (1938)

	(Metric tons)
Fushun and others	994,300,000
Fuchow and others	7,255,000
Peipiao	155,500,000
Fuhsin	4,000,000,000
Sian	226,000,000
Hokang	600,000,000
Chalainor	3,270,000,000
Mishan and others	575,000,000
Shulan and others	224,300,000
Penhsihu and others	322,000,000
Ilan	130,000,000
Chientao and others	495,370,000
Others	437,540,000
Total	11,437,265,000

Principal Coal Mines

The principal coal mines under operation at present are Fushun, Yentai, Penhsihu and Hsian in Fengtien Province; Fuhsin and Peipiao in Chinchow Province; Holikang in Sankiang Province, Mishan and Muleng in Mutankiang Province, and Chalainoerh in North Hsingan Province. Others of importance are Huoshihling, Chiaoho, Laotoukou, Niuhsintai, Fuchou and Pataokou. The majority of these coal mines is exploited by the South Manchuria Railway Company and the Manchuria Coal Mining Company, established in 1934. Chief among the former's are Fushun and Yentai, while the principal mines owned by the latter are Fuhsin, Hsian and Holikang.

The Fushun and the Yentai mines controlled and worked by the South Manchuria Railway are two of the richest mines in Manchuria. The

coal from Fushun mines is rich in volatile matter and is thus used extensively for the production of gas. About forty-seven miles east of Mukden lies the Penhsihu coal mine on the Antung-Mukden line of the S. M. R.

Capital investment in the Fushun and Yentai mines amounted to 137,260,000 yen at the close of the fiscal year ending March 31, 1938. Fushun lies in the valley of the Hun River, a little over thirty miles east of Mukden. It runs east and west about 10 miles parallel with the river and from north to south 2½ miles, covering 23 square miles. The seam is interbedded in the tertiary stratum with a northerly dip of about 30 degrees, and with an average thickness of 130 feet, the thickest part being 430 feet. About 81,000,000 tons have been mined during the last quarter century.

The Fushun and Yentai districts have a long history. Coal was first worked by Koreans some 600 years ago and was used for the baking of earthenware. Three hundred years later, further digging was prohibited for the curious reason that it was near the mausoleum of a Manchu Emperor, built in the suburbs of Mukden. Prior to and during the Russo-Japanese war, the mines were operated by Russians on a small scale for their own needs, the daily output amounting to 300 tons. After the war, the Japanese military authorities carried on the mining until it was turned over in 1907 to the South Manchuria Railway Company, together with the Yentai and other minor fields. It then entered on an era of large-scale production on a scientific basis, the pits being equipped with modern machinery.

Table 4. Coal Output by Mines (In 1,000 Metric Tons)

	1930	1931	1932	1933	1934	1935
Manchuria Coal Mining Co.:						
Fuchou	206	222	187	194	161	143
Potaohao	77	50	48	63	69	87
Weimingshan	55	11	8			
Fuhsin	35	35	10	16	31	57
Mishan						17
Chalainor	6	20		74	114	53
Haokang	172	301	95	288	315	328
Sian	43	85	165	315	455	679
Peipiao	510	656	35	60	277	305
Total including others	1,104	1,380	548	1,010	1,422	1,669
S. M. R. Co.:						
Fushun	7,173	6,355	5,627	6,945	7,520	8,733
Yentai	178	177	148	161	222	275
Chatzuyao					4	8
Naitzushan	13	100	19	1	56	146
Laotoukou	20	10	22	36	55	75
Huoshihling	91	90	70	84	126	143
Penhsihu	582	468	502	612	676	744
Niusintai	41	36	45	62	75	82
Kifeng						3
Total	8,098	7,236	6,433	7,901	8,734	10,214
Others	491	338	151	158	182	304
Grand Total	9,693	8,954	7,132	9,069	10,338	12,187

Table 5. Coal Demand Classified (In Metric Tons)

Industry:	1933	1934	1935	1937
Iron Manufacturing	921,000	1,134,000	1,489,000	1,631,000
Chemical	117,000	164,000	254,000	294,000
Machine, etc.	94,000	97,000	103,000	131,000
Textile	64,000	58,000	63,000	70,000
Provisions	91,000	86,000	114,000	207,000
Ceramics	296,000	403,000	507,000	561,000
Miscellaneous	141,000	171,000	212,000	239,000
Electric and Gas	951,000	1,103,000	1,181,000	1,311,000
Railways	1,290,000	1,581,000	1,808,000	2,044,000
Forestry	362,000	409,000	477,000	492,000
Household, etc.	1,788,000	2,049,000	2,485,000	2,598,000
Total	6,155,000	7,255,000	8,693,000	9,578,000

Coal Output and Export

The output and export of coal are given below.

Table 6. Output and Export of Coal (In Metric Tons)

	Output	Export	Domestic Demand
1930	9,693,000	3,856,000	5,272,000
1931	8,954,000	4,172,000	4,110,000
1932	7,132,000	3,342,000	5,000,000
1933	9,069,000	3,758,000	6,155,000
1934	10,338,000	4,303,000	7,255,000
1935	12,187,000	4,182,000	8,693,000
1936	13,606,000	3,738,000	9,578,000
1937 Estimate		3,900,000	10,889,000
1938		4,470,000	12,606,000
1939		6,090,000	13,676,000
1940		5,150,000	17,123,000
1941		5,650,000	20,145,000

Recent Situation

In the matter of increasing the output of coal the South Manchuria Railway Company, identified since its first days with the mining activity at the Fushun mine, is naturally expected to play a part of no mean importance. In fact, the Company is planning to extend, adjust or combine the open cut mines at the estimated cost of MY1,700,000 with a view to higher efficiency in work.

It is reported that the newly established Manchuria Coal Mining Co. is charged with the work of producing 10 to 15 million tons of coal each year. The figure appears impressive by the way, when compared with the production of coal in Japan proper which was 41,803,000 metric tons in 1936.

The consumption of coal appreciably rose in the year after the military outbreak of 1931 and continued to rise in the year following, the rate of increase being 20 per cent. for each of these years. In 1935 the figure exceeded the 8 million line, an increase of more than 35 per cent. In the same year the South Manchuria Railway accounted for a total output of 10,210,000 metric tons as against 1,760,000 tons of the Manchuria

Coal Mining Co.

The Manchuria Coal Mining Company.—With the two fold object of effecting rational exploitation of coal mines and fundamental control of the coal mining industry of the country, the Manchuria Coal Mining Company was incorporated in May, 1934, with a capitalization of MY16,000,000, subscribed jointly by the Manchoukuo Government (MY8,000,000 in kind) and the South Manchuria Railway Company (MY5,000,000 in kind and MY3,000,000 in cash). Necessitated by the expansion of its enterprise resulting from the enforcement of its five-year plan of increased production, aiming at ten million tons annual output, the capitalization was raised to MY80,000,000 in April, 1937, the MY64,000,000 increase being borne equally by the Government and the S.M.R. Its head office is located in Hainking.

Steady progress has been witnessed in the activities of the Company ever since its establishment. Besides undertaking large-scale development of the Hsinchiu, Pataohao, Fuchou and Weimingshan Collieries, which are under its direct management, the Company is directing its efforts towards further expansion of its sphere of control. As a step towards this realization, it has purchased the greater part of the shares of the Holikang, Hsian and Peipiao collieries.

Thorough surveys conducted recently have revealed that the estimated deposits of the Hainchiu coal field, for the exploitation whereof special emphasis has been laid in the Company's five-year plan, reach 4,000 million tons. Coal mines operated or controlled by the Company, in addition to those above-mentioned, are located at Mishan, Chalainoerh, Hoshihling, Muleng and Fuhsin.

Estimated Coal Demand in 1941.—The estimated coal demand in 1941, if the so-called Five Year Plan which was drawn up in 1937 is realized, will be approximately 27 million metric tons. Of this amount the heavy industries of

Manchoukuo will consume 8,335,000 metric tons, supply of 5,650,000 metric tons will be exported the railways, 3,000,000 metric tons and other while 1,150,000 metric tons will be allotted for industries, 8,810,000 metric tons. A further shipping use.

Table 7. Estimated Coal Demand Classified According to the 5-Year Plan (In 1,000 Metric Tons)

	Heavy Industry	Railways	Others	Export	Bunker	Total
1937	2,067	2,200	6,622	3,900	900	15,686
1938	2,886	2,400	6,320	4,470	970	18,046
1939	3,236	2,600	7,840	6,090	1,070	20,836
1940	6,003	2,800	8,320	5,150	1,100	23,373
1941	8,335	3,000	8,810	5,650	1,150	26,945

IRON INDUSTRY

Iron Industry in Manchuria

The iron deposits of Manchuria, as far as they are known, are mainly distributed over the areas lying to the east and to the south of the city of Fengtien (Mukden). Iron ore deposits in the major mines are tabulated as follows:

Table 8. Estimated Lean Iron Ore Deposits by Principal Mines

Species	Quantity (M. tons)	Iron Content %
Anshan Hemaetite & Magnetite	645,800,000	24.57 - 36.67
Kungchangling Hemaetite & Magnetite	382,000,000	31 - 36
Miaoerhkow Mostly magnetite	230,000,000	33
Waitoushan Magnetite	134,000,000	33 - 35
Total	1,391,800,000	

Table 9. Estimated Rich Iron Ore Deposits

Species	Quantity (M. tons)	Iron Content %
Kungchangling and others Hemaetite & Magnetite	40,720,000	52 - 65
Tailitzukou and others Hemaetite	81,270,000	53 - 63
Total	121,990,000	

The ores found in Manchoukuo are generally hematite and contain from 34% to 70% of iron. The bulk of the deposits analyze between 35% to 40%. The main iron belts of Manchuria lie along the Mukden-Dairen and Mukden-An-tung sections of the South Manchuria Railway system, centering around Anshan and Penhsihu. The Anshan district deposits are the most important. These spread in a semi-circle with a radius of 10 kilometers with Anshan as the center. There stands the largest iron works in Manchuria, the Showa Steel Works.

Table 10. Iron Ore Production in Manchoukuo (In Metric Tons)

	Lean Ore	Rich Ore	Total		Lean Ore	Rich Ore	Total
1917	3,585	99,561	103,146	1931	673,380	250,879	924,259
1922	600	139,528	140,128	1932	742,810	237,068	979,878
1927	457,300	173,304	630,604	1933	770,381	328,032	1,098,413
1928	488,000	185,624	673,624	1934	739,623	393,748	1,133,371
1929	529,490	251,768	781,258	1935	985,480	492,460	1,477,940
1930	523,894	359,603	883,497	1936	1,325,219	579,374	1,904,593
				1937 (1st half)			1,029,063

Table 11. Production of Steel Materials By Kinds in Manchoukuo (In Metric Tons)

	1935	1936	1935	1936
Steel Rods	12,346	67,287	Thick Steel Plates	—
Rails	8,397	38,228	Cast Steel	—
Thin Steel Plates	4,704	29,141	Total	25,447
				135,366

Table 12. Pig Iron Production in Production in Manchoukuo* (In Metric Tons)

	Pig iron	Steel	Steel materials		Pig iron	Steel	Steel materials
1933	433,523	—	—	May	60,987	30,880	26,323
1934	475,826	—	—	June	64,915	30,756	25,577
1935	607,948	136,817	25,447	July	65,273	35,642	26,390
1936	633,393	344,424	135,306	Aug.	69,089	36,886	27,065
1937:				Sept.	67,107	39,984	26,866
Jan.	55,863	33,970	36,409	Oct.	74,374	49,684	35,516
Feb.	49,635	27,432	36,449	Nov.	75,234	52,359	44,038
Mar.	52,383	33,610	41,479	Dec.	75,730	25,490	15,439
Apr.	51,548	29,851	28,115	Total	762,138	426,544	369,666

Note: * Represents production by Showa Steel Works and Penhsihu Iron & Colliery Co.

Table 13. Pig Iron Production in Manchoukuo Classified by Companies (In Metric Tons)

	Showa Steel Works (Former Anshan Iron Works)	Penhsihu Iron & Colliery Company	Total		Showa Steel Works (Former Anshan Iron Works)	Penhsihu Iron & Colliery Company	Total
1925	85,886	50,799	136,685	1932	287,124	81,057	368,181
1926	146,327	51,810	198,143	1933	317,573	115,950	433,523
1927	192,895	51,308	244,203	1934	322,376	153,450	475,826
1928	220,637	64,038	284,675	1935	456,848	151,100	607,948
1929	217,859	77,521	295,380	1936	472,993	160,400	633,393
1930	262,994	86,241	349,235	1937	762,138	—	762,138
1931	276,650	65,620	342,270				

Expansion Plans.—The Showa Steel Works and the Penhsihu Iron and Colliery Company will be called upon to increase their aggregate output of pig iron to 4,800,000 metric tons by the end of 1941, according to the Five Year Plan. The Showa Steel Works is expected to account

for 2,800,000 metric tons of this total output. Besides pig iron a large amount of steel billets, steel sheets and miscellaneous steel materials will be produced by the Showa Steel Works by the end of 1941.

Table 14. Pig Iron Production Capacity in Manchoukuo (In Metric Tons)

	Production Capacity in 1936	Expansion of Capacity	Estimated Capacity in 1941
Showa Steel Works	700,000	2,300,000	2,800,000
Penhsihu Iron and Colliery Co.	150,000	1,850,000	2,000,000
Total	850,000	4,150,000	4,800,000

Table 15. Production Expansion Plans of Showa Steel Works (In 1,000 Metric Tons)

	Capacity 1937	Production Expansion				Capacity 1941
		1938	1939	1940	1941	
Pig Iron	700	1,000	—	550	550	2,800
Loops	—	—	80	120	300	500
Steel Billets	580	—	125	375	1,750	2,830
Steel Sheets	500	—	—	550	—	2,510
Strips	—	—	5	—	—	550
Special Steel	—	—	215	430	400	1,350
Steel Materials	305	—	—	—	—	—
Iron Ore:						
Rich Ore	400	900	—	—	—	—
Lean Ore	2,047	—	—	5,303	1,740	1,300
Total	—	—	—	—	—	9,090

Pig Iron By-products.—In the course of making pig iron a large amount of by-products is obtained. The by-products obtained in producing pig iron in Manchuria in the past few years is appended:

Table 16. Principal By-Products in Pig Iron Manufacturing in Manchoukuo (Metric Tons)

	1927	1932	1933	1934	1935	1936
Coke	310,290	408,057	458,664	577,979	654,038	735,787
Coke Powder	18,595	48,682	54,588	43,331	78,433	117,447
Sulphate of Ammonia....	4,406	6,724	6,362	7,525	9,791	11,779
Tar	11,457	18,050	22,346	22,826	30,039	39,919
Benzol	1,681	2,962	2,831	4,879	4,405	6,550
Naphthaline	148	642	557	686	835	1,420
Creosote	2,063	2,792	3,000	3,526	6,667	7,827
Pitch	5,847	7,869	8,377	9,156	15,238	18,119
Ore Dregs Brick	6,466	5,942	24,747	39,650	47,571	50,433

Showa Steel Works

More than 80 per cent of all the iron output in Manchuria is produced at the Showa Steel Works, at Anshan. Known formerly as the Anshan Foundry, it had been operated as a joint Sino-Japanese undertaking under the title of Chen Hsing Tieh Kung Ssu until 1916 when the South Manchuria Railway Company took it over and began to extend at the cost of MY38 million, the objectives being 1 million tons of pig iron and 800,000 tons of manufactured steel annually. Under the initial program work was commenced on the plant for an annual production of 150,000 tons, calling for 2 blast furnaces each of 300 tons capacity, coke ovens, railways, electricity, and water works. In 1919, however, the undertaking, all but completed had to be discontinued in consequence of the chaotic conditions developed in world economies and iron industry. The Anshan Foundry's revival did not take place until the successful development of the special process for dealing with ores of low grade. The main point of the new Anshan method is to transform the hematite into magnetite by roasting and turn it into brittle and easily crushable substance. From this material, iron is concentrated by magnetism.

The Foundry, thanks to the same process, produced in 1927 more than 200,000 metric tons of pig iron. Resuming the original plan, the 300 tons units were replaced by those of 350 tons, to which a furnace of 500 tons capacity was also added. In 1930 or the year immediately preceding the military outbreak the output of pig iron had been raised to 280,000 tons per year. In June, 1933, the Anshan Foundry was transferred from the South Manchuria Railway Company to the newly formed Showa Steel Works. In December, 1937 the Showa Steel Works was placed under the management of the newly established Manchuria Industrial Development Corporation.

First Extension Program.—This undertaking was commenced in April, 1933, and completed in March, 1935, when Manchuria saw the first steel produced on its soil. In order to finance

the undertaking the Company had increased its capital from MY25 million in 1933 to MY90 million in 1937.

Second Extension Program.—The second program was launched towards the close of the year 1934 and completed in March, 1937. Under this program the production of pig iron has been increased from 440,000 to 650,000 metric tons per year by addition of a furnace, and the production of manufactured steel from 350,000 to 500,000 metric tons per year by addition of 2 hearths. The total cost of MY26 million involved was met by bonded borrowing.

3rd & 4th Extension Programs.—The 3rd and 4th extension programs form part of the 5-year industrial plan of Manchoukuo. Through the 3rd extension developments the Showa Steel Works will attain the productive capacity of 1 million tons of pig iron and 800,000 tons of manufactured steel, the goal for which the Anshan Foundry was placed under the enterprise of the South Manchuria Railway Company in the year 1916.

Recent Situation.—For the year ending March 31, 1938 the Showa Steel Works produced 677,393 metric tons of pig iron. The output of steel billets was 515,347 metric tons, steel sheets 455,809 metric tons and steel materials 215,383 metric tons.

In 1938 four blast furnaces of 700 metric tons each were expected to be completed, one in September, two in November and one in December. These four furnaces are expected to have a pig iron production capacity of 1,000,000 metric tons annually, and together with those already in operation the total production capacity of the Showa Steel Works will be 1,700,000 metric tons.

The fifth extension plan will be completed in 1940 when a blast furnace of 750 metric tons will be installed. At the end of sixth extension plan in 1941 still another furnace of 750 metric tons will be completed.

The expansion plans of the Showa Steel Works will call for a capital outlay of approximately 1,100 million yen. Construction expenditures

therefore, for the four years commencing 1938 will average about 270 million yen annually. Of the total capital requirements, 410 million yen will be met by payments on shares, the issue of debentures will care for 470 million yen while 40 million yen will be met by borrowings, and 18 million yen from the profits of the company.

Industrial Position of Anshan.—The iron works at Anshan has been operated on an experimental basis for the most part. It was not until 1935 that the enterprise was able to declare a distribution of profit. When production is being extended by successive stages, almost regardless of the business side of the enterprise, the Company, under the increasing weight of capital investment, can hardly be expected to place itself on a well paying basis for years to come. However, it is noteworthy that the produce of the Showa Steel Works has since a couple of years ago given birth to a number of steel and machinery manufacturing enterprises at the town of Anshan. Mention may be made of Anshan Steel Products (capital MY5 million), Sumitomo Steel Pipe, Manchou Roll (capital MY2 million), Nichi-Man (Japan-Manchou) Steel Piping (capital MY5 million), Kubota Iron Works, branch workshops of Kobe Steel Works, Manchou Galvanizing, etc.

Heavy Industry & Watercourses

The industrial town of Anshan is seriously handicapped for lack of facilities of water transportation. Industrial produce has to be transported to Dairen, 198 miles, or to Yingkow, 60 miles, equally by railway. The cost of transportation, for instance, of pig iron to Japan is as high as ¥7.50 per ton. In these circumstances, plans are on the tapis for constructing canals between Anshan and Yingkow as well as elsewhere. The matter of constructing watercourses as well as adjustment of the river Liaohe and its tributary Hunho are now regarded as conditions essential for the development of South Manchuria as an industrial zone. These undertakings naturally involve questions of embankment construction to prevent floods to which the country is mercilessly exposed and also those of harnessing water resources for industrial purposes.

The Manchuria Mining Development Company

In accordance with the provisions of Article 9 of the Mining Law which stipulates that "in case it is deemed necessary for national defence or preservation of national resources, application for mining may be restricted by designating the districts or minerals concerned by Imperial Ordinance," the Manchuria Mining Deve-

lopment Company was established by Imperial Ordinance No. 91, promulgated in April, 1935. The Ordinance provides that the above company will have exclusive right to mine the following twenty-three minerals: platinum ore, lead ore, zinc ore, tin ore, iron ore, antimony ore, aluminium ore, nickel ore, iron sulphate ore, manganese ore, scheelite ore, molybdenum ore, mercury ore, phosphorous ore, coal, petroleum, oil shale, magnesite, fluorspar, fire clay, saltpetre, talc and asbestos.

However, any person who discovers mines containing any of the above deposits and wishes to exploit them, may do so upon applying for a lease of mining privileges and payment of royalty to the Manchuria Mining Development Company.

The Company's business include the acquisition and lease of mining privileges, refining ores, and investment and financing of refining enterprises. With the approval of the Minister of Industry, it is allowed to conduct other accessory enterprises. Its total capitalization is MY5,000,000, subscribed equally by the Manchoukuo Government (MY1,000,000 in kind and MY1,500,000 in cash) and the South Manchuria Railway Company (MY200,000 in kind and MY2,300,000 in cash).

Iron and Steel Control Law

A law for control of iron and steel was promulgated on April 1, 1938 at Hsinching. The law is intended to control distribution of domestic and foreign iron and steel to smooth relations between demand and supply, as well as to fix prices. The gist of the law is as follows:

Article 1. Iron and steel affected include pig-iron, steel ore, billet, slug, wire materials, steel plate, steel tube, rail, volt, nut, rivet, spike, wire rope, rail, wire, tin-plate, cast-iron manufactures, scrap iron and others.

Article 2. Only those specified by the Industrial Minister will be permitted to purchase authorized species of iron or steel materials to be entrusted with selling them or to import or export them. Others will not be allowed to do so unless authorized by the Industrial Minister. On the other hand, the Industrial Minister is obliged to consult with the Economic Minister on granting permission to importers or exporters of these materials.

Article 3. Producers of iron or steel materials, unless permitted by the Industrial Minister, are forbidden to sell specified iron or steel materials or to entrust the sale of them to persons other than those fixed in the previous article.

Article 4. Producers of iron or steel materials are obliged to obtain the Industrial Minister's permission on species and amount of their manufactures to be produced. Permission also must be obtained for alterations. The Industrial Minister is also authorized to order changes, when and if necessary.

Article 5. Importers or exporters of iron or steel should obtain the Industrial Minister's grant on species and amount of their goods to be imported or exported yearly. The Industrial Minister, on the other hand, is

authorized to order any changes, when and if necessary. He is obliged to consult with the Economic Minister on such grants or orders.

Article 6. Producers of iron or steel materials and dealers as indicated in Article 2 are obliged to obtain the Industrial Minister's approval of sales prices or terms for authorized species of iron or steel materials. The Industrial Minister is authorized to issue any orders, when and if necessary, to those producers or dealers concerning sale of the materials in question.

Article 7. The Industrial Minister, when and if necessary, is authorized to have such producers or dealers report in their business, have his men investigate their business offices, warehouses or documents, or to have his men question all concerned.

Article 8. Anyone violating the regulations under Article 2 and 3 is to be fined ¥5,000 or less. When the Articles are violated, the Government is authorized to confiscate all iron or steel materials owned or obtained by the violators. When unable to confiscate them, the Government also is authorized to collect a forfeit in money equal to the value of the goods.

Article 9. Anyone disregarding Government orders or regulations as pointed out in Articles 4, 5 and 6 are to be fined ¥1,000 or less.

Article 10. Anyone offending against the regulations under Article 7 is to be fined ¥200 or less.

There are besides three minor articles providing for punishment of violators and offenders.

GOLD

History.—According to traces discovered gold was mined in Manchuria over a thousand years ago. About 1750 gold mining was actively engaged in by the natives but in the century that followed it seems to have been suspended. From about 1880 it was resumed, this time by the Russians along the Heilungkiang. The gold ore output for 1882 and 1883 was reported as 2,190 liang or about 2,190 kwan. In 1883 Li Hung Chang took control of the mines from the Russians but failed to operate them successfully due to financial difficulties. Between 1912 and 1914 mining operations were actively engaged in and the number of miners employed in the provinces of Heilungkiang and Kirin was estimated to be in the vicinity of 13,000 and gold output at 6,060.8 kilograms annually. By 1923 the number of miners had increased to over 100,000 and gold output in the region of Heilungkiang alone is estimated to have been between 3,500 and 3,600 kwan. Until the establishment of Manchoukuo in 1932 the scope of gold mining remained practically at a standstill.

The gold reserves of Manchoukuo remain unexplored for the most part; but the South Manchuria Railway Company's Investigation Bureau, than whom, perhaps, few are better informed on the subject, has reported that gold mining "is one of the most promising lines" and has also predicted that Manchuria will become one of the important gold producing areas in the world. When coal, iron and 23 other minerals of major importance were placed under the exclusive enterprise of a specially privileged corporation in 1935, gold was not included in the list, a fact indicative of the special position gold takes in the industrial structure of the country. Gold mining, is free only in Jehol and the former province of Fengtien, where as a matter of general principle the mining is under a lease system. This system has been put in practice in order to en-

courage placer mining by individuals, who generally work on a small scale and for a brief period of time at any place.

Gold Outlook.—While the gold mining business is still in its infancy and more attention is being given for the time being to prospecting for mines and alluvial deposits, some striking progress may be noted. The Manchuria Gold Mining Company from June to December, 1934, produced gold to a total of MY557,559, and for the following year MY3,670,848, and the amount for 1936 reached MY10,024,000, thus making a three-fold increase for those successive years. The output of MY100 million per year is regarded as a goal not so far to reach. Under the 5-year plan launched in 1937 the production of gold in the year 1941 is to be ¥82,000,000.

For the purpose of attaining the goal of the five-year program, the Manchuria Gold Mining Company has launched a vigorous campaign in various directions, especially emphasizing (1) the diffusion and thoroughness of prospecting and surveying of new mines, (2) the positive assistance and subsidization to enterprisers, (3) the inducement of gold miners as immigrants, and (4) the expansion of mining operations already in existence. For prospecting and surveying new mines, the Company has increased the usual annual appropriations ranging between MY500,000 and MY600,000 to MY1,000,000 for 1938 and eventually to MY2,500,000 by 1940. For encouraging enterprisers in this field, the Company proposes to start a sort of contract system based upon the establishment of mining rights outside of the districts within which it enjoys the monopoly, to plan for the rationalization of the management of the enterprise, and to encourage the prospecting itself by offering a maximum of MY120,000 as bounties. In drawing immigrants to gold fields and mines, the Company plans to invite Japanese experts and to improve the technique.

MINING

The realization of the above programs, the mechanization of mining method, and the discovery of new mines are believed to reduce the cost of production and to elevate the gold mining in Manchoukuo to a prosperous level. It is estimated, however, that the five-year program will require something like MY35,000,000 which will be met through the augmentation of the authorized capital and the issuance of debentures. This means an increased and positive participation of Japanese capital in the gold production in Manchuria.

The popular enterprises in gold mining remain as yet a future problem largely as it concerns the mine gold which is still under investigation and quite undeveloped. The Manchoukuo Government took a first step in this direction in 1937 by opening the Government Gold Ore Refinery in Mukden, and the hopeful development of gold mines in the eastern section of the country and Jehol Province is expected in the near future. Most promising seems to be the Laipikou gold mine which the Tatung Development Company, a Japanese-Manchoukuo joint corporation with an authorized capital of MY3,000,000, is planning to develop. As a result of a thorough investigation made by a party of 40 headed by Professor Kadokura of Tokyo Imperial University over a period of 3 months from July, 1934, it was discovered that this mine is 12,000 feet long and averages 7 feet in thickness and one metric tons of ore contains an average of 40-62 grammes of gold. The Company has decided upon its large scale development and in 1937 some 150 experts, engineers and technicians had started the work.

Table 20. Leading Gold Mining Companies in Manchoukuo

Company	Locality	Capital	Mining sites
Manchuria Gold Mining Co.	Hsinking	12,000,000	Heiho, Pinkiang, Sankiang and Chientao Provinces
North Manchuria Gold Mining Co. ..	Tokyo	2,000,000	Hsingan North Province
Manchuria Mining Co.	Mukden	5,000,000	Tsangshih, Tsingyuan, Tsinglung, Lunghua, etc.
Jehol Mining Co.	Hsinking	1,000,000	Jehol Province

The Manchuria Gold Mining Company

This company was established in May, 1934, following the discovery of prospective gold fields in North Manchuria as a result of extensive surveys conducted for over a year since January, 1933. Capitalized at MY12,000,000 (one fourth paid-up), of which MY5,000,000 each is invested by the Manchoukuo Government and the South Manchuria Railway Company, and MY2,000,000 by the Oriental Development Company, the corporation, with its head office in Hsinking, has a monopoly of gold mining

Table 17. Gold Output Compared with Japan

	Japan		Manchoukuo	
	Quantity (kgs.)	Amount (¥1,000)	Quantity (kgs.)	Amount (¥1,000)
1931.....	21,848	26,829	111	313
1932.....	22,976	47,287	240	672
1933.....	25,835	64,821	66	186
1934.....	23,577	86,749	463	1,308
1935.....	34,163	105,161	1,886	5,283
1936.....	39,944	128,460	3,570	10,024

Note: * Including Chosen and Taiwan.

Table 18. Gold Mined in 1936 by Manchuria Gold Mining Company

Month	Value (¥)
January	331,000
February	356,000
March	481,000
April	543,000
May	620,000
June	1,075,000
July	762,000
August	1,221,000
September	1,294,000
October	1,316,000
November	702,000
December	1,323,000
Total	10,024,000

Table 19. Five Year Gold Mining Plan

Year	Output (Yen)
1937	14,800,000
1938	22,000,000
1939	36,000,000
1940	55,000,000
1941	82,000,000
Total	209,800,000

in the former provinces of Kirin and Heilungkiang.

Its functions include the advancing of funds to concerns engaged in gold mining and refining, the assumption of the management of gold mining enterprises conducted by others, the entrusting of the management of some of its own enterprises to others, and the sale and purchase of alluvial and refined gold. With the approval of the Minister of Industry, the Company is also permitted to participate in other accessory undertakings.

The participation of the general public in-

interested in the exploitation of gold deposits within its allotted sphere of operations is welcomed by the Manchuria Gold Mining Company in view of the difficulty of effecting satisfactory operations in such a wide area by itself. An announcement to that effect was issued by the Company jointly with the Manchoukuo Government on the occasion of the enforcement of the new Mining Law.

Law Governing the Manchuria Gold Mining Company, Ltd.—May 14, 1934 (1st Year of Kangtê). For text refer to page 863, Japan-Manchoukuo Year Book, 1935 issue.

Limestone.—The distribution of limestone is very extensive, and as its mining is easy and simple, a large quantity is used for various purposes. Those produced in the Kwantung Leased Territory are used for cement and glass manufacture, and those produced at Penhsihu and Huolienchai for smelting iron ore.

Table 21. Limestone Production (Metric Tons)

Year	Chushuitzu	Huolienchai	Penhsihu	Total incl. others
1930....	292,068	338,293	58,128	668,489
1931....	208,040	299,163	34,800	542,003
1932....	145,671	165,405	42,000	477,350
1933....	113,130	91,931	58,171	601,040
1934....	.....	.....	.....	635,760
1935....	.....	.....	.....	846,943

Silica.—The silica found in the neighbourhood of Dairen and Port Arthur is used as fireproof materials and brick-making materials. The production of silica in Manchoukuo is estimated at about 250,000 metric tons annually.

Soapstone.—This ore is produced in the neighbourhood of Tashichiao and Haicheng. The annual production, which was 25,726 metric tons in 1930 increased to 44,316 metric tons in 1931. Greater part of the product is shipped to Japan proper where it supplies almost the entire demand, it being used for spinning, paper-making and toilet-making purposes.

Table 22. Soapstone Production

Year	Production (Metric Tons)	Shipment to Japan Proper	
		From Yingkow	From Dairen
1930.....	25,726	29,036	7,513
1931.....	42,890	33,654	7,638
1932.....	44,316	27,669	6,132
1933.....	62,430	35,241	12,330
1934.....	75,410	.....	.....
1935.....	70,572	.....	.....
1936.....	79,250	.....	.....

Lead, Copper, Manganese, etc.

Lead.—The principal deposits of lead in Manchoukuo are to be found at Chingchengtzu, in Fengtien Province, the amount being estimated

at over 51,000 metric tons. The nature of the lead mined at Chingchengtzu is said to be of good quality and in 1924 as much as 2,600 metric tons of lead ore and 950 metric tons of crude lead were mined and refined at the site.

Aluminium.—The plan for manufacturing aluminium from alumina shale, after a period of experimental manufacture at the Fushun laboratory, at length assumed the form of the Manchou Light Metal Manufacturing Company in November, 1936, capitalized at MY25 million, which was shared as follows: South Manchuria Railway Company MY14 million, Manchoukuo Government MY10 million, a group of affiliated companies in Japan MY1 million. The plant built through extension of the experimental establishment at Fushun was put in operation in 1938, with an output capacity of 4,000 metric tons per year.

Table 23. Alumina Shale Reserves

	Quantity (M. tons)	Grade (%)
Yentai	1,034,000	45 - 41.3
Penhsihu	3,202,000	40 - 47.3
Niusintai	9,382,000	46.4 - 52.5
Shaoshin	5,930,000	45.3 - 55
Others	5,770,900	37.2 - 55
Total	25,318,900	

Magnesite.—The enormous deposits of Magnesite at Tashihchiao, often claimed the largest in the world, gave birth in 1933 to the Nichi-Man (Japan-Manchou) Magnesium Company, capitalized at MY7 million. The Company has established large scale plants at Naoetsu, in Niigata prefecture, and at Ube, in Yamaguchi prefecture, both in the main island of Japan. A third factory is to be placed in Manchuria.

The deposits of magnesite in Manchuria is estimated at 1,130 million tons. In the districts around Haicheng, deposits of excellent magnesite, amounting to 1,000 million tons, are found. Magnesite mining in Manchuria is of comparatively recent origin. It dates back to 1913 when native inhabitants brought an incombustible mineral resembling limestone to the South Manchuria Railway Company for chemical analysis. The mineral was found to be none other than magnesite, and the S.M.R. recognizing the need of magnesite as raw material for the future of Japan's light-metallic industry, made every effort to acquire magnesite mining districts. Between 1915 and 1921, it managed to acquire thirteen such districts.

In 1918 the S.M.R. gave the South Manchuria Mining Company the monopoly over the transaction of this mineral and the right to exploit its mining districts. The industry being new, much difficulty was experienced at first, but the

true value of magnesite as fire-proof material came to be finally known.

Table 24. Magnesite Reserves

	Quantity (M. tons)	Magnesite Content (%)
Haicheng and others	905,000,000	44.05 - 46
Niusintai	3,000,000	45.68
Paihushan	22,000,000	45.02
Saoshengshuisze & others	200,000,000	45.87
Total	1,130,000,000	

Manganese.—Plans are under way to exploit the manganese resources of the country. Investigations carried on in past years have shown that fair deposits are to be found at Heisunglin and at Hsiaohuangchi. In 1931 production amounted to 270 metric tons.

Petroleum

(For Oil Monopoly Law see the 1937 issue, page 877).

Following investigations in the last few years it has been confirmed that a fair supply of petroleum is to be found in the district about Dalainor, while the petroleum resources in other parts of the country are yet to be ascertained. At present the country obtains most of its petroleum requirements from foreign sources. In April, 1935 the Oil Monopoly Law was enforced with a view to rationalizing the industry. The Government established what is now known as the Manchuria Petroleum Company, a Manchou-Japanese joint concern, in February 1934 as the first step towards supervising the oil industry. The Company is capitalized at ¥5,000,000 the

capital stock being 100,000 shares at 50 yen per share. Of the total capital the Manchoukuo government has subscribed ¥1,000,000, the South Manchuria Railway Company ¥2,000,000 and the Nippon Oil, Ogura Oil and the Mitsui and Mitsubishi interests ¥5,000,000 each.

Petroleum Trade Expansion.—The petroleum trade is a monopoly in Manchuria. The market is exclusively held by the Manchou Petroleum Company which at once proceeded to put up a refining plant at Dairen the same establishment operating since the beginning of 1935 with a capacity of annually dealing with 60,000 tons of crude oil for production of 360,000 boxes of gasoline, 890,000 boxes of lamp oil, and 210,000 boxes of machine oil, approximating one half of the total needs in the country in each of the specified lines. Later, the Company extended the plant to the point of treating 84,000 tons of crude oil each year for production of 1.2 million boxes of light oil, and an unspecified amount of heavy machine oil. The trade has practically attained a self-sustaining position in these lines. A plan is under way to treble the company's capital to carry out further extensions and prospecting on an ambitious scale.

Abiding by the Manchoukuo Oil Monopoly Law and conforming to the plan for placing oils in Manchoukuo on a self-supporting and self-sufficient basis, the company is permitted to engage in oil refining and in supplying the refined oil products to the Manchoukuo Government. At the same time acting under the orders of the Manchoukuo Government, it is allowed to make test for oil and also conduct operations for the development of the oil industry in the country.

Table 25. Petroleum Demand (Kilolitres)

Year	Production from domestic crude	Production from imported crude	Imported refined products	Exported refined products	Total consumption	Index No.
1929.....
1930.....	174,762	.....	174,762	100
1931.....	115,731	.....	115,731	66
1932.....	65,586	.....	65,586	37
1933.....	52,085	.....	52,085	30
1934.....	126,883	.....	126,883	72
1935.....	224,790	.....	224,790	131
1936.....	58,567	119,512	.....	178,079	103
		127,816	148,022	.....	225,838	130

COAL LIQUEFACTION

The coal liquefaction industry in Manchuria is represented by three enterprises, located at Fushun, Chinchow and Ssuningkai, respectively. The scheduled production of crude oil of these three plants for 1939 aggregate 50,000 metric tons of crude oil and 10,000 tons of gasoline. Of the three plants those at Fushun and Ssuningkai were being operated in November, 1938. The

plant at Chinchow is in the course of construction on a tract of land of 50,000 tsubo.

Three processes of coal liquefaction are being used. These are the Fischer synthetic process at Chinchow, the hydrogenation process at Fushun, while both the hydrogenation and low temperature carbonization processes are used at Ssuningkai. The hydrogenation process as used was

developed by the Japanese Navy and the S. M. R. Company and does not infringe upon the patents of the International Hydrogenation Patent Pool.

The coal liquefaction works at Fushun will have a production capacity of 33,000 metric tons but actual production is not expected to exceed 20,000 metric tons in 1939. The plant at Ssuningkai is producing gasoline exclusively, the scheduled amount for 1939 being 10,000 metric tons. The plant at Chinchow is expected to produce 30,000 metric tons of crude oil in 1939 and its production capacity will be increased in stages to 100,000 metric tons.

Table 26. Leading Coal Liquefaction Companies in Manchoukuo (1938)

Plant	Capital (¥1,000)	Established	Estimated production in 1939 (M. tons)	Process
Manshu Yuka Kogyo K.K. Ssuningkai	2,500	1937	10,000	Hydrogenation and Low Temperature Carbonization
Coal Distillation Plant of S. M. R. Fushun	16,000	1938	20,000	Hydrogenation
Manshu Gosei-Nenryo (Synthetic fuel) K.K. Chinchow	50,000	Under const.	30,000	Fischer synthetic
Total	3 68,500	—	60,000	

Shale Oil

The South Manchuria Railway Company has since some years ago been engaged in the manufacture of heavy oil by treatment of oil shale, the amount turned over in the year 1935 being 67,000 metric tons. In the same year a new program was entered on for the ultimate production of 360,000 tons each year.

Extension of Fushun Oil Shale Plant.—The oil shale of Fushun despite all the prospecting so far carried out extensively, still remains the only source of liquid fuel in Manchoukuo. It was before 1932-33 that the oil shale enterprise at Fushun attained to a self-paying basis, the cost of production having been reduced to the level of the prevailing market price. The first

The chief investors in these coal liquefaction companies are the Manchoukuo Government, the Industrial Bank of Manchou, the S. M. R. Company and private Japanese interests.

Besides these coal liquefaction companies there are other similar companies located in Japan and Chosen. The Noguchi interests in Chosen have completed a hydrogenation process plant which has been in operation since the autumn of 1938. A Fischer synthetic process plant is under construction at Miike, Japan by the Mitsui interests.

extension program was completed in 1935, increasing production from 70,000 metric tons to twice as much per year. The second extension has already been embarked on. Upon its completion in June 1938, the output of crude oil was to be increased to approximately 360,000 metric tons a year.

Table 27. Oil Shale Reserves

	Quantity (M. tons)	Grade (%)
Fushun	5,400,000,000	5.5
Fengning	16,000,000	4 - 7
Kingfotang	12,000,000	3 - 7
Lotzekow	200,000,000	4 - 6
Ilan	2,000,000	4 - 7
Total	7,628,000,000	

References:

Table Nos.: 1 a, 2 b, 3 a, 4-5 b, 6 b & c, 7 b, 8-10 a, 11-12 b, 13 a, 14-15 a, 17 b & d, 18-19 b, 20 e, 21-22 b, 23-24 a, 25 b & c, 26 e, 27 a.

Key: a—S. M. R.

b—Department of Industry, Manchukuo.

c—Foreign Trade Bulletin of Manchoukuo.

d—Department of Industry & Commerce, Japan.

e—Japan-Manchoukuo Year Book.

CHAPTER XXI

MANUFACTURING INDUSTRY

- I. GENERAL
- II. TEXTILE
- III. CHEMICAL
- IV. BEAN OIL & CAKE

- V. FOODSTUFFS & DRINKS
- VI. ELECTRIC & GAS
- VII. METAL & MECHANICAL
- VIII. MISCELLANEOUS

I. GENERAL

The manufacturing industries of Manchuria may be said to have taken up a new pattern of development with the establishment of the state of Manchoukuo in 1932 when it became apparent that the beginnings of a closer inter-relationship between the industrial fabrics of Japan and Manchoukuo had taken root. That trend has become increasingly evident in the succeeding years. The policy is ever-present in all of the major industries to bring the two countries into a common economic unit, to avoid destructive competition and to utilize as fully as possible the natural resources of the two countries. The presence of this pattern is most clearly observable in the heavy industries, but with the elapse of time the same device is expected to be carried out with greater thoroughness into the light industries.

Manchoukuo has been and is still essentially an agricultural country. With the exception of certain enterprises under Japanese management, those undertakings which may be classified as belonging to the manufacturing industry are few in number and small in scale. Prominent among such enterprises are oil milling and flour milling. It was after the advent of the Russians late in the nineteenth century that a few primitive manufacturing industries were launched in Harbin. After the Russo-Japanese war of 1904-05 and especially during the World War a number of establishments producing the simpler kinds of manufactures, such as match, paper and ceramics were built and enjoyed a brisk business until the depression set in following the Great War. During and after the depression a large number of the smaller industrial companies were either dissolved or amalgamated, and because of

the almost ceaseless civil wars that waged until 1932 the various enterprises were hindered from making as rapid an advance as should have been expected.

The most industrialized region in Manchuria is Kwantung Province. Favoured with good transportation facilities, proximity to coal and iron mines and with safety assured by the Japanese garrison, Kwantung Province has been the center of great activity for the past three decades. For most of the progress achieved there the country is indebted to Japanese capital and technical skill and to the important role taken by the South Manchuria Railway Company in introducing the latest western industrial machinery for its manifold enterprises.

Recent Situation

The value of industrial production in Manchoukuo and Kwantung has been steadily expanding. Between 1934 and 1936 the value of output has more than doubled, advancing from ¥360,469,000 to ¥805,955,000. As an industrial center the Kwantung Leased Territory continues to be more important than Manchoukuo. In 1936 Kwantung accounted for ¥470,547,000 in the value of production as contrasted with ¥335,408,000 in Manchoukuo.

Among all industries, the metal enterprise shows the most remarkable progress. Between 1934 and 1936 the value of production increased by seven folds and in the latter year amounted to ¥151,940,000, of which Kwantung accounted for as much as ¥128,629,000.

The spinning and weaving, provisions and lumbering enterprises showed a larger value of output in 1936 in Manchoukuo than in Kwantung.

Table 1. Statistics of Manufacturing Industries in Manchuria

Industries:	Manchoukuo			Kwantung & S.M.R. Zone			Total		
	No. of factories	Actual No. of workers	Production (¥1,000)	No. of factories	Aggregate No. of workers (1,000)	Production (¥1,000)	No. of factories	No. of workers	Production (¥1,000)
Textile:									
1934	1,139	33,389	39,232	128	10,750†	23,312	1,267	44,149	62,544
1935 . . . . .	.....	.....	.....	98	4,090	31,867	.....	.....	.....
1936	1,066	.....	70,234	99	4,611	40,768	2,065	.....	111,002

(Continued)	Manchoukuo			Kwantung & S.M.R. Zone			Total		
	No. of factories	No. of workers	Production (¥1,000)	No. of factories	No. of workers (1,000)	Products (¥1,000)	No. of factories	No. of workers	Production (¥1,000)
Metallic:									
1934.....	740	7,635	15,260	116	2,667†	4,261	856	10,302	19,521
1935.....	.....	.....	.....	154	9,049	43,667	.....	.....	.....
1936.....	812	.....	23,311	174	6,790	128,629	986	.....	151,940
Machine & Tools:									
1934.....	328	4,617	6,727	181	12,425†	22,550	509	17,042	19,550
1935.....	.....	.....	.....	142	6,340	34,416	.....	.....	.....
1936.....	421	.....	10,177	207	5,357	40,245	628	.....	50,422
Ceramic:									
1934.....	405	15,522	5,560	184	9,733†	10,569	589	26,163	16,127
1935.....	.....	.....	.....	132	2,412	14,765	.....	.....	.....
1936.....	427	.....	11,384	156	4,856	17,037	583	.....	28,420
Chemical:									
1934.....	601	8,339	29,836	280	9,267†	74,005	881	17,606	103,841
1935.....	.....	.....	.....	177	2,829	116,738	.....	.....	.....
1936.....	742	.....	44,483	190	3,146	122,755	932	.....	167,238
Provision:									
1934.....	711	6,708	38,136	413	7,453†	28,862	1,124	14,161	69,215
1935.....	.....	.....	.....	353	1,625	37,070	.....	.....	.....
1936.....	815	.....	110,892	393	2,695	54,819	1,208	.....	165,711
Lumber & Woodworking:									
1934.....	526	6,387	5,862	121	2,884†	10,947	647	9,171	16,809
1935.....	.....	.....	.....	89	795	10,668	.....	.....	.....
1936.....	578	.....	14,635	81	901	10,267	654	.....	24,902
Printing & Bookbinding:									
1934.....	275	4,859	4,798	117	2,392†	4,126	392	7,251	8,924
1935.....	.....	.....	.....	101	1,168	6,246	.....	.....	.....
1936.....	302	.....	7,414	134	1,464	7,602	434	.....	15,016
Miscellaneous:									
1934.....	1,773	20,541	14,781	237	4,792†	11,613	2,010	25,683	28,274
1935.....	.....	.....	.....	141	3,671	23,510	.....	.....	.....
1936.....	1,407	.....	42,878	133	2,060	29,440	1,540	.....	72,318
Total:									
1934.....	6,469	107,997	164,287	1,790	63,524†	196,362	8,286	172,979	360,649
1935.....	.....	.....	.....	1,398	32,273	334,956	.....	.....	.....
1936.....	6,570	.....	335,408	1,576	32,332	470,547	8,146	.....	805,955

Note:

† indicates actual number of operatives.
Factories operating less than five workers excluded in Kwantung.

Capital Investments.—Capital investments in the manufacturing industries as at the end of 1936 amounted to ¥533,233,000, as contrasted with only ¥90,936,000 in 1931. Investments were largest in the metal refining and electric enterprises, followed by the chemical industry.

Table 2. Capital Investment Outstanding in Manufacturing Industry in Manchuria

(Amount in ¥1,000)

Index: 1935=100

	1931			1935			1936		
	Amount	%	Index	Amount	%	Index	Amount	%	Index
Textile	6,921	7.5	42	16,371	3.0	100	24,137	4.5	147
Metal Refining	25,337	27.7	22	115,647	30.7	100	143,947	25.0	124
Machine & Tool.....	2,275	2.4	22	10,537	2.7	100	15,022	2.8	143
Ceramics	3,152	3.4	17	17,932	4.8	100	21,190	3.9	118
Chemical	13,614	14.8	29	46,840	13.3	100	71,685	13.4	150
Food & Drinks.....	20,070	22.1	63	31,712	8.4	100	43,072	8.0	136
Electric	1,437	1.5	1.2	112,977	29.8	100	128,345	24.0	113
Gas	10,000	11.0	100	10,000	2.6	100	10,000	1.9	100
Lumber & Wood-working	4,890	5.3	81	6,055	1.6	100	8,190	1.5	165
Miscellaneous	3,240	3.5	30	11,082	2.9	100	67,645	15.6	609
Total	90,936	100	41	379,153	100	100	533,233	100	146

II. TEXTILE

The textile industry of Manchuria owes its inception and growth to the advent of Japanese capital and technique. In 1937 there were 254,540 spindles and 3,182 looms in the country. An expansion program for increasing the spindles by 96,000 and the looms by 1,513 was under consideration. In view of the close inter-relationship of Manchoukuo and Japan in industrial production much attention is being given towards diminishing competition between the spinning mills situated in Manchuria and those in Japan.

Table 3. Details of Spinning Industry (1935)

	Number of Factories		Production (MY1,000)		Amount of Investment (MY1,000)		Number of Workers	
		%		%		%		%
Wild Silk Reeling..	70	6.1	2,859	7.3	604	3.5	10,398	31.1
Cotton Yarn	2	0.2	6,538	16.7	6,172	35.5	2,339	7.0
Cotton Tissue	405	35.6	15,099	38.5	1,886	10.8	9,444	28.2
Woolen Textile ..	10	0.9	2,663	6.8	5,655	32.5	1,381	4.4
Silk Fabric	7	0.6	236	0.6	82	0.5	398	1.2
Knitted Goods	375	32.9	5,196	13.2	1,602	6.1	6,345	19.0
Dyeing & Weaving..	242	21.3	5,634	14.3	784	4.5	2,612	7.8
Cotton Mfg.	11	1.0	705	1.8	46	0.3	265	0.8
Others	17	1.4	302	0.8	1,096	6.3	207	0.5
Total	1,139	100.0	39,233	100.0	17,387	100.0	33,389	100.0

Table 4. Leading Spinning and Weaving Companies in Manchoukuo and Kwantung (End of May, 1937)

	Locality	Capital (Yen)	No. of Machines		
			Spinning machines	Twisting machines	Weaving machines
Chinchou Factory of Nai-gai Cotton Co.	Chinchou	—	92,200	—	1,006
Manshu Fukubo K. K.	Choushuitzu	3,000,000	29,520	1,020	—
Manchuria Spinning Co.	Liaoyang	5,000,000	60,000	1,080	705
Mukden Spinning Co.	Mukden	4,500,000	30,860	—	320
Yingkow Spinning & Weaving Co.	Yingkow	3,000,000	23,600	—	808
Total			236,180	2,100	2,839

Imports.—Imports of cotton piece goods show a steady expansion in the past few years. In 1937 total imports of these articles were valued at ¥44,435,000 as contrasted with ¥40,769,000 in 1936. Japan's share of exports of cotton piece goods to Manchuria in 1937 was ¥43,561,000.

Production Curtailment.—In conformance with the Manchoukuo Government's policy towards restriction of raw cotton imports, the Manchurian Federation of Cotton Spinning Mills decided in April, 1938 voluntarily to limit operations at the spinning mills in this country by 16.33 per cent. during 1938.

Raw Cotton Imports.—Imports of raw cotton have been on the increase. The larger share of such imports are accounted for by the British India followed by China and the United States.

Table 5. Import of Raw Cotton and Output of Cotton Manufactures in Manchoukuo and Kwantung Province of Leading Companies

(In piculs)

Import:	1934	1935	1936
	American Cotton	45,000	35,000	50,000
British Indian Cotton	260,000	112,000	234,000
Chinese Cotton	13,000	38,000	65,000
Total	318,000	185,000	349,000

(Continued)

Output:	1934	1935	1936
Manchurian Cotton	242,000	332,000	181,000
Kwantung Province Cotton	4,000	5,000	5,000
Export and Consumption other than spinning.	170,000	152,000	91,000
In stock with spinning cos.	76,000	185,000	95,000
Total supply (Exclusive of amount transferred and in stock)	394,000	370,000	444,000

Table 6. Cotton Consumption of Spinning Companies

	1934	1935	1936
American Cotton	53,000	37,000	48,000
British Indian Cotton	230,000	220,000	265,000
Chinese Cotton	103,000	180,000	164,000
Total	386,000	437,000	477,000

Weaving Machines.—There were as at the end of July 1935 a total of 16,549 weaving machines in Manchoukuo and Kwantung. The principal centers of the weaving industry are Fengtien, Yingkow, Yukung and Hsinmintun.

Table 7. Number of Weaving Machines in Manchoukuo and Kwantung (July, 1935)

	Wide Cloth		Narrow Cloth		Total
	Motive	Hand	Motive	Hand	
Hulan	—	—	—	100	100
Harbin	60	1,105	—	—	1,165
Yukung	128	132	86	1,468	1,814
Ssuping kai	—	—	24	33	57
Yushutai	—	—	—	120	120
Pamiencheng	—	—	—	80	80
Lishuhsien	—	—	—	280	280
Kaiyuan	—	—	—	84	84
Tiehling	—	—	191	765	956
Fengtien	852	482	3,052	79	4,466
Hsinmintun	—	—	—	1,500	1,500
Shanchengtzu	—	—	—	400	400
Chinhsien	—	—	—	450	450
Peichen	—	—	—	400	400
Chinsi	—	—	—	400	400
Antung	902	298	—	—	1,200
Yingkow	453	—	2,124	—	2,577
Chinchow	—	—	500	—	500
Total	2,395	2,018	5,977	6,159	16,549

Woolen Industry.—In spite of an abundant supply of wool in Manchoukuo, the woollen industry is quite inactive. This is due chiefly to the inferiority of the fibre. A woollen company was first established in Manchuria in 1918 when the Manchu-Mongol Woollen Manufacturing Co. (Mammo Keori) was brought into being with a capital of ¥10,000,000 under the support of the Kwantung Government, the South Manchuria Railway Company and the Oriental Development Company in order to meet the stoppage of the import of wool from Australia consequent upon the World War. In 1938 the paid-up capital stood at ¥6,625,000.

Table 8. Demand and Supply of Woollen Fabrics in Manchoukuo (In yen)

	Production	Import	Consumption
1933.....	1,930,000	7,831,441	9,761,441
1934.....	2,662,000	9,579,388	12,241,388
1935.....	3,431,000	11,342,804	14,773,804
1936.....	.....	14,314,721	.....
1937.....	.....	18,997,880	.....

Table 9. Woollen Fabrics Companies in Manchoukuo (End of May, 1937)

Locality	Established	Authorized capital (¥)	Capacity per Year
Mam-Mo Keori K.K. ... Mukden	1918	10,000,000	Woolen fabrics: 2,000,000 yards Woolen yarns: 700,000 pounds; Mattings: 33,000 Sq. shaku Hats, etc.: 100,000 dozens
Yuchingteh Works ... Harbin	1922	650,000	Blankets: (daily) 100 pieces Woolen cloths: 600 yards

Hemp-Dressing Industry.—The hemp-dressing industry has been regarded as a very promising industry in Manchoukuo in view of the brisk demand for gunny bags and the climate and soil of the country being well suited for the cultivation of hemp. In 1917 the Manchurian Hemp-dressing Company was established in Dairen and in 1919 the Manchu-Mongolian Textile Company in Mukden. Those two concerns so much prospered that for a time their combined production of gunny bags amounted to 4,000,000. In 1923 the Mukden Hemp-dressing Company, or a successor of the Manchu-Mongolian Textile Company suffered serious damage due to a fire.

At the beginning of 1937 the productive capacity of the Company was to have increased to 15,000,000 bags.

With a view to instituting an industry for flax in North Manchuria which is well suited for its cultivation, in April, 1934 the Nichiman Flax Spinning and Weaving Company was established with a capital of ¥6,000,000. The Manichi Flax Spinning and Weaving Company, capitalized at ¥3,000,000, which is a sister company was also established at the same time. The Manichi owns a factory in Mukden and fac-

ories for dealing with raw materials in Harbin and other places. The Mukden factory supplies all of the flax requirements of Manchoukuo, and surplus output is exported to Japan where the Nichiman Company owns a factory at Toyama. The capitalization is taken up by the Mitsui and other interests.

Table 10. Manufactures of Manchuria Hemp-dressing Co.

	Gunny bags (Pieces)	Hemp Cloth (Yards)	Hemp yarn
1930.....	3,028,000	442,000	1,560,000
1931.....	3,765,500	331,000	1,630,000
1932.....	4,773,000	182,000	1,261,000
1933.....	4,649,000	175,000	1,166,000
1934.....	4,629,000	174,000	1,829,000

Table 11. Cultivation Area and Fibre Crop of Man-Nichi Flax Spinning & Weaving Co.

	Area of Cultivation (Cho)	Crop of Green flax (Lbs.)
1934.....	2,000	70,000,000
1935.....	6,000	150,000,000
1936.....	10,000	300,000,000
1937.....	15,000	450,000,000
1938 (Estimate) ..	28,000	700,000,000

Table 12. Import of Flax, Ramie, Hemp and Manufactures Thereof

	Raw jute		Flax, ramie, hemp		Yarn, thread, cordage, twine and rope		Gunny bags, new		Gunny bags, old		Total value incl. others (Yen)
	Catties	(Yen)	Catties	(Yen)	Catties	(Yen)	Piculs	(Yen)	Piculs	(Yen)	
1933.....	5,308	868	2,498	526	.....	.....	467	11,925	353	5,067	20,377
1934.....	16,874	2,375	1,493	291	3,326	912	427	10,390	506	5,744	20,463
1935.....	16,761	2,063	601	142	4,210	3,326	556	10,599	345	4,041	18,913
1936.....	19,781	2,597	1,903	452	4,719	1,652	446	9,468	368	4,557	19,516
1937.....	22,218	3,734	3,823	1,058	6,952	2,343	737	15,347	301	3,926	27,590

Wild Silk Industry.—The wild silk industry originally grew in Kaiping, whence it gradually spread to such places as Haicheng, Antung, Siuyen, Hoiho, Shipul etc. The annual crop of wild cocoons is put at 6-10,000,000,000 pieces, or 8,500,000,000 to 8,600,000,000 pieces on an average.

The industry is run on a large scale under the modern factory system and also on a small scale by farmers as a subsidiary occupation. The wild silk factories are concentrated in the wild silk markets, such as Natung, Heicheng, Kaiping, Kaiyuang, Huangfengchen, Siuyen and Sifeng.

For the purpose of controlling the industry and effecting improvements in the quality of the yarn and other matters an export silk condition-

ing house was opened in Antung and branches in Haicheng and Kaiping-hsien in June, 1935.

Table 13. Wild Silk Yarn and Silk Pongee Mills

(1933)			
Wild Silk Mills:	No. of Mills	No. of Machines	Daily Productive Capacity
Antung	43	9,215	5,261
Kaiping	14	3,060	655
Haicheng	12	6,090	2,240
Sifeng	44	4,145	876
Mukden	—	—	—
Silk Pongee Mills:	No. of Mills	No. of Machines	Output (chiki)
Antung	17	186	31,700
Haicheng	3	100	—
Kaiping	5	200	—
Mukden	1	200	—
Sifeng	—	—	—

Table 14. Exports (inclusive of shipment to Japan) of Wild Silk Cocoons and Others
(Volume in 1,000 catties; Value in M¥1,000)

	Cocoons, refuse and wild		Raw silk yarn wild		Waste silk		Silk pongees		Total	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1934.....	2,231	230	2,461	7,409	2,721	796	28	178	7,441	8,613
1935.....	1,318	137	2,271	7,279	2,483	1,106	59	325	6,131	8,846
1936.....	2,392	317	1,654	6,118	1,660	1,155	58	329	5,764	7,919
1937.....	1,466	177	2,472	8,386	2,645	2,623	54	298	6,638	11,484

Rayon.—A significant development in the manufacture of rayon has been witnessed in Dairen and Ryojun. From a total of 2,790 yard produced in 1932, the output was up to 237,180 yards in 1935, valued at ¥79,270.

Table 15. Production of Rayon Fabrics in Dairen and Ryojun

	Dairen		Ryojun		Total	
	Yards	Yen	Yards	Yen	Yards	Yen
1932.....			2,790	1,116	2,790	1,116
1933.....	20,800	7,900	8,560	3,384	29,260	11,284
1934.....	317,320	114,692	78,600	31,440	395,920	146,132
1935.....	141,480	50,560	95,700	28,710	237,180	79,270

Promotion of the Staple Fibre Industry.—Perceiving an urgent necessity of promoting the staple fibre industry, the Manchoukuo Government laid down a concrete policy therefor towards the end of June, 1937. The details of the policy are as follows:

- (1) To institute a state laboratory in regard to staple fibre to pursue the study of spinning, weaving, colouring and finishing.
- (2) To exempt staple fibre tissues from the

consumption tax, reduce the railway freights thereon and encourage the consumer in the use of articles made wholly or partly of staple fibre.

- (3) To lay down a state policy of pulp for Japan, Korea and Manchoukuo by taking adequate measures for afforestation and the import of materials for pulp, while ensuring and investigating the resources of materials, taking into consideration the close relations between pulp for the manufacture of rayon and that for paper.

III. CHEMICAL

Cement Industry

Started in 1908, the cement industry has developed in a striking manner and since 1935 the country has been in a position to suffice its domestic requirements of this product. Two large groups of companies, representing the Mitsui and Asano interests, dominate the cement enterprise in Manchoukuo at present. These are the Onoda Cement Company, with Mitsui capital, and the Daido Cement Company capitalized by the Asano interests.

Cement imports which were up to 305,400 metric tons valued at ¥7,900,000 in 1934 were down in 1936 to 167,400 metric tons and in 1937 slipped to 35,000 metric tons. Exports in 1937 amounted to 20,000 metric tons.

Cement production in 1937 was estimated at 800,000 metric tons as contrasted with 108,800 metric tons in 1932. The trend of the past few years has been for cement manufacturers in

Japan proper to erect plants in Manchoukuo thereby cutting down production cost as well as in utilizing the facilities extended by the Manchoukuo government.

Table 16. Demand and Supply of Cement in Manchoukuo
(In metric tons)

	Output	Imports	Exports	Demand
1924....	103,400	28,400	28,600	96,000
1925....	.....	26,000	48,600	71,300
1926....	.....	49,600	64,600	97,000
1927....	111,900	69,200	32,900	135,000
1928....	151,400	41,900	68,800	129,000
1929....	205,700	46,000	80,400	166,000
1930....	194,500	46,800	106,100	138,200
1931....	162,000	38,900	83,500	109,400
1932....	108,800	33,600	35,100	117,900
1933....	184,900	155,400	18,400	323,200
1934....	232,600	305,400	8,100	527,600
1935....	378,000	155,200	11,900	516,500
1936....	580,000	167,400	95,100	624,700
1937*....	800,000	35,000	20,000	800,000

Note: * Estimate.

Table 17. Cement Manufacturing Cos. in Manchoukuo and Kwantung
(1937)

	Annual Capacity (M. tons)	Expansion Plan (M. tons)	Products
Onoda Cement Co. of Kwantung:			
Dairen factory	250,000		Portland cement
Anshan factory	125,000		Blast furnace cement
Manchuria Cement Co.:			
Liaoyank factory	90,000	90,000	Portland cement
Fushun Cement Co.:			
Fushun factory	(a) 100,000	(b) 50,000	(a) Portland cement (b) High silica mixed Portland cement
Tatung Cement Co.:			
Kirin factory	110,000		Portland cement
Penhsihu Cement Co.:			
Penhsihu factory	(a) 100,000	(b) 50,000	(a) Portland cement (b) Blast furnace cement
Onoda Cement Co. of Manchou:			
Chuantou factory	100,000		Portland cement
Harbin Cement Co.:			
Harbin factory	100,000		Portland cement
Mutangkiang factory		100,000	Portland cement
Total	975,000	290,000	

Fire-Proof Clay.—The districts of Fuchow, Yentai and Penhsihu are rich in fire-proof clay. Tests of the substance revealed the following highly favourable result:

Table 18. Components of Fire Clay By Leading Producing Districts

	Silicic Acid %	Alumina %	Oxidized Iron %	Lime %	Magnesia %	Heating Loss %	Testing
Fuchow Soft Clay	44.92	39.54	1.92	0.26	0.18	14.84	Siegel System: No. 34
" Hard Clay	28.23	54.55	2.29	0.20	0.22	15.04	" " No. 37
Yentai Soft Clay	44.35	36.90	3.58	0.29	0.34	14.79	" " No. 32
" Hard Clay	44.76	37.95	2.43	0.21	0.16	15.56	" " No. 33
Penhsihu Hard Clay ..	44.30	40.00	1.34	0.33	0.23	15.42	" " No. 33

Glass

The glass industry in Manchuria suddenly sprang up on the stoppage of the imports of European goods during the World War. Since the founding of Manchoukuo the demand for glasses has increased considerably. Production of glasswares has expanded from ¥554,000 in 1932 to ¥920,000 in 1934.

The largest glass manufacturing company is the Shoko Glass Company, Dairen, which was established in 1925 under the joint investments of the Asahi Glass Company of Japan and the

South Manchuria Railway Company. The Company's production consisting of sheet glass in 1935 was 600,000 cases, valued at ¥3,000,000. Next in rank to the Shoko Glass Company is the South Manchurian Glass Company, Dairen. Capitalized at ¥300,000, the Company is engaged chiefly in the manufacture of glassware. Its annual production is ¥250,000. The manufactures of both companies are of superior grades. Other glassware manufactures are mostly individuals scattered over Dairen, Mukden and Harbin.

Table 19. Production of Glass in Manchuria
(In ¥1,000)

	Glass wares					
	Table wares	Gauges	Illumina-tors	Test tubes	Lump, bottles, etc.	Sheet glass
1930.....	199	27	28	8	556	818
1931.....	145	18	26	6	367	562
1932.....	155	21	34	9	334	554
1933.....	212	26	52	14	378	881
1934.....	161	34	52	15	658	920

Table 20. Production of Glass By Districts

(In ¥1,000)

	Dairen	Yingkow	Mukden	Antung	Kaiyuan	Hsinking	Kirin	Harbin	Total (incl. others)
1930.....	330	7	60	10	40	41	6	323	818
1931.....	282	5	39	15	32	45	5	139	562
1932.....	321	5	44	9	28	27	11	110	554
1933.....	443	21	83	13	34	50	12	224	881
1934.....	418	14	140	19	36	55	11	225	920

Table 21. Sheet Glass Manufacturing Companies

(End of Sept., 1938)

	Estab-lished	Head office	Capital (¥1,000)	Affiliation	Capacity per year (Box in 100 sq. feet)	Remarks
Shoko Glass Co., Ltd...	1925	Tokyo	3,000	Asahi Glass Co. & S. M. R. Co. ...	800,000	—
Manshu Shoko Glass Co., Ltd.	1937	Mukden	3,000	Shoko Glass Co...	800,000	Under construction

Dolomite Industry.—The production of dolomite in Manchuria, which was roughly 90,000 metric tons in 1932, increased to 166,000 tons in 1933. It is produced mostly in Kwantung Province. The largest dolomite plaster manufacturing company is the South Manchuria Dolomite Industrial Company, which was established in Dairen in 1934. The Company's annual capacity is 720,000 bales. It is capitalized at ¥1,000,000, of which two-fifths is paid up. Dolomite exports in 1937 amounted to 2,412,000 piculs valued at ¥385,800.

Paper

The paper industry in Manchoukuo has shown slow progress. The first paper mill in the modern sense of the term was established in Manchuria in 1917 when the Funing Paper Manufacturing Company was brought into being as a Sino-Japanese joint enterprise. Many paper mills have since been established, but the majority of them have not shown good results. About 80 per cent. of the demand for paper is supplied from abroad, Japan being the major supplier.

There are two large paper manufacturing companies in Manchoukuo, namely, the Yalu Paper Manufacturing Company and the Manchuria Paper Manufacturing Company. The former is capitalized at ¥5,000,000, representing the Okura and Ohashi interests and has a capacity of 12,000 tons for pulp and 8,500 tons for paper. The latter is capitalized at ¥500,000 and has a capacity of 900 tons. Until the foundation of Manchoukuo there were a number of

minor paper mills operating in the country, including such concerns as the Matsu-ura and the Funing paper companies, which have since been merged or dissolved.

Imports.—Paper imports in 1937 were valued at ¥24,864,000 as compared with ¥16,792,000 in 1936.

Pulp

The pulp industry of Manchoukuo was initiated in 1919 by the Yalu Paper Manufacturing Company, when it installed equipments for an annual capacity of 12,000 metric tons. Owing, however, to the post-war economic crisis, the Company was forced to suspend operations. As a result of the Manchurian incident, the Japan-Manchoukuo economic bloc was completed, while the rayon industry began to make phenomenal developments. In view of a growing demand for pulp in Japan in March, 1936 permission was given for the establishment of the following four concerns:—

The East Manchuria Rayon Pulp Company, Limited: Designated location of works, Yenchihsien, Chientao Province; Site of works, 300,000 tsubo, approximately; Capital, ¥15,000,000. Products: wood pulp of various kinds; Annual capacity, 15,000 metric tons; annual production, 10,000 metric tons.

Manchuria Pulp Industrial Company, Limited (Japan-Manchoukuo joint enterprise): Designated location of works, Ninan-hsien, Pinking Province; Site of work, 500,000 tsubo; Capital, MY10,000,000; Products; Wood

pulp of various kinds; annual capacity 15,000 tons; Annual production, 10,000 tons. The Japan-Manchuria Pulp Manufacturing Company, Ltd.: Designated location of works, Tunghua-hsien, or Tunchincheng; Site of works, 500,000 tsubo, Capital, MY10,000,000; Annual capacity, 15,000 metric tons; Annual production, 10,000 tons.

Toyo Pulp Company, Limited (formerly

known as the Manchu Pulp Company, Limited): Probable location of works, one of the following four places: Lower course of the Wantsing, Tumen, or Hunchun, or Yenchi-hsien; Site of works, 300,000 tsubo; Capital, ¥10,000,000 (half to be paid up for the first call); Production: Wood pulp of various kinds; Annual capacity, 15,000 metric tons; Annual production, 10,000 metric tons.

Table 22. Pulp Manufacturing Concerns

(End of June, 1937)

	Established	Authorized Capital	Paid-up Capital	Affiliation	Head Office
East Manchuria Rayon Pulp Co.	May, 1934	¥15,000,000	¥3,750,000	Okawa Interest	Tokyo
Japan-Manchuria Pulp Co.	Sept., 1936	10,000,000	5,000,000	Oji Interest	Hsinking
Manchuria Pulp Industrial Co.	May, 1936	10,000,000	2,500,000	Terada Interest	Hsinking
Toyo Pulp Co.	Sept., 1936	MY10,000,000	MY5,000,000	Kawanishi "	Hsinking
Kotoku Pulp Co.	Dec., 1936	5,000,000	2,500,000	.....	Mukden

Reed Pulp

A process for converting Manchurian reed into pulp which was successfully made by the Kanegafuchi Spinning Company some ten years ago has led to the establishment of a reed pulp industry in the country. Much hope is pinned in the future of this enterprise. The Kanegafuchi Spinning Company produced in 1938 approximately twenty tons of reed pulp daily, and plans are on foot to increase yearly production to 150,000 tons at a total outlay of ¥80,000,000. The Kanegafuchi Spinning Company purchased approximately 10 square miles of reed land along the Liao river at a cost of ¥1,600,000. A similar amount of reed land was purchased by the Oji Paper Company which is also interested in the reed pulp industry. Plans for developing the reed pulp industry in Shingishu, Chosen is also under consideration by the Kanegafuchi Spinning Company.

Ammonia Sulphate.—The production of ammonia sulphate is making much headway, the output for 1935 by three of the major producers, namely, the Fushun Oil Factory, the Fushun Electric Power Station and the Showa Steel Works, amounting to 39,122 metric tons. Projects have been laid to increase the output of this chemical to 348,000 metric tons by the end of 1939. Of this amount the Manchuria Chemical Industry Company is expected to account for 240,000 metric tons.

The industry has become distinctly active since the Manchurian Chemical Industry Company opened operations in March, 1935. The plan

for the enterprise was launched as far back as 1928 when the Anshan Iron Works was granted a permit by the Japanese Government to open an ammonia factory. At that time Japan's productive capacity of sulphate of ammonia was only 250,000 tons against the demand of 550,000 tons and about 300,000 tons had to be yearly imported from abroad. In view of this situation, it was thought necessary to stabilize the nitrate industry from the viewpoint of the national policy of fertilizer. Hence the scheme of the establishment of the Company. In June, 1929 the Anshan Plant, then a S.M.R. subsidiary, bought from the Uhde Company of Dortmund, Germany, its patent for combining liquid gas with ammonia.

As a result of the independence of Manchoukuo from China in 1932, which charged Japan with the mission of chemical exploitation of the resources of the new country, a charter for the Manchuria Chemical Industrial Company was granted by the Tokyo Government in December, 1932 and the Company was formerly organized in May, 1933. A factory was started at Kancheng-tzu near Dairen. Of the capitalization of ¥25,000,000, a half was taken up by the South Manchuria Railway Co. In March, 1935 the factory was completed and immediately put in operation with the purpose of turning out sulphate of ammonia to the amount of 180,000 metric tons a year to be increased later. The plant is equipped with 35 coke ovens. There is a coal shed of 2,000 tons capacity for fueling the ovens. The plant uses 30,000 kilowatt of electric power, a daily supply of 8,000 tons of fresh water and

64,000 tons of salt water and consumes 120,000 tons of Fushun coal yearly. Productive capacity of the Manchuria Chemical Industrial Company and the S.M.R. Company's works may be seen from the following:—

Table 23. Production of Sulphate of Ammonia (In Metric tons)

	Manchuria Chemical Ind. Co.	S.M.R. Co.		Showa Steel Works	Penhsihu Iron & Colliery Co.
		Fushun oil factory	Fushun electric power station		
1933	—	18,376	5,681	4,891	—
1934	—	14,675	5,560	6,958	—
1935	—	24,717	6,175	8,230	—
1936	—	—	181,033	—	—
1937	135,408	26,154	6,391	11,480	1,843
*1938	240,000	42,000	6,000	16,000	....
*1939	240,000	80,000	6,000	22,000	....

Note: * Estimate amount.

Table 24. Production Capacity of Manchuria Chemical Industrial Co. (End of July, 1937)

	Metric Tons
Sulphate of Ammonia	240,000
Sulphuric Acid	250,000
Thick Sulphuric Acid	3,000
Nitric Acid	2,000
Benzol	1,000
Nitrate of Ammonia	3,000
Tar	1,000
Creosote	1,000
Pitch	2,000
Cokes	10,000

Exports.—Exports of sulphate of ammonia were valued at ¥9,676,000 in 1937.

Soda Ash

The salt fields in Kwantung Province cover an extensive area of 18,000,000 tsubo and have an annual productive capacity of about 500,000 koku. Not only is it very easy to increase output but production cost is very moderate. Further, there is an ample supply of lime, sulphate of ammonia and fuel. Thus, the country is favoured with every condition necessary for the soda industry. With the laying of the solid foundation of the salt industry (Vide Chapter on Fisheries) in May, 1936 there was brought into being a Manchu Soda Company under Government supervision in Kanchengtzu, Dairen. Annual capacity of the Company is 36,000 metric tons. Production in 1938 was estimated

Table 25. Demand and Supply of Soap in Manchoukuo (In Yen)

Year	Production	Import	Export	Consumption	Consumption per capita
1930	1,165,000	2,178,486	48,959	3,296,445	0.10
1931	1,045,500	1,629,687	61,810	2,613,377	0.08
1932	1,476,100	1,989,760	85,362	3,380,498	0.11
1933	1,308,400	1,572,277	33,144	2,847,533	0.09
1934	1,321,000	2,021,554	....	3,341,197	0.11
1935	....	2,205,915	149,882	....	....
1936	....	2,986,903	12,539	....	....
1937	....	4,069,701	965	....	....

at 30,000 metric tons. A half of the capacity is intended to meet requirements in all Manchuria and the other half those in Japan and South China. The capital is ¥8,000,000, a half of which is paid up. Of that amount of the authorized capital, ¥2,000,000 is put up by the South Manchuria Railway Company, ¥2,000,000 by the Manchu Chemical Industrial Company, ¥2,000,000 by the Asahi Glass Company and ¥600,000 by the Shoko Glass Company.

Imports.—Imports of soda ash in 1937 amounted to ¥1,447,000.

Soap

Formerly, Manchuria looked entirely to foreign supply for her requirements of soap. The imports which were very inferior in quality, tended to increase. Since the World War, however, the European and American goods have been largely replaced by Japanese manufactures.

At present about 60 per cent. of requirements of soap in Manchuria is met by imports from Japan and the rest by products of local factories. Principal soap manufacturers in Manchuria are the Dairen Fat Industrial Company, the Soap Department of the Manchu Paint Company and the Mangyoku Company. The smaller factories are hard pressed by cheap priced imports from Japan. Imports of soap in 1937 were valued at ¥4,069,000 as compared with ¥2,985,000 in 1936.

Paint

Despite a growing demand for paint due to building activities and other developments, the country has hitherto been almost entirely dependent upon imports for the supply of this line of goods. Since the Manchurian incident, however, the paint industry has gradually expanded and improved. In December, 1934 the Manchurian Paint Company amalgamated the Harbin Paint Company in order to meet swiftly increasing demands for paint. At present there are in Manchoukuo only three paint factories, namely, the Dairen and Harbin factories of the Manchurian Paint Company and the Mukden factory of the Nippon Paint Company. These three factories supply about 70 per cent. of the total requirements of paint of Manchoukuo.

The Manchurian Paint Company was established in February, 1919 in Dairen with a capital of ¥500,000, of which ¥300,000 is paid up. Its products consist of common paint, mixed paint, varnish, paint oil, aqueous wall paint, putty, illuminating paint, hydrozincite and other chemicals. Since its establishment, the Company has steadily developed. It has branches in Shanghai, Tientsin and Harbin. Its productive capacity is ¥700,000 to ¥900,000 a year. The manufacturers mentioned above find their markets not only in North and South Manchuria but also in China and the South Seas region. After the Manchurian Incident, there was established at Mukden another paint company styled the Japan-Manchoukuo Paint Company with a capital of ¥1,000,000, of which ¥250,000 was paid up. In September, 1934 the Company was merged in the Nippon Paint Company, which has had steady markets in Manchuria for twenty years past, and has since been known as the Mukden factory of the Nippon Paint Company. Its annual productive capacity is put at ¥1,500,000.

Dyestuffs

Formerly, the people of Manchuria made a considerable amount of indigo and other dyestuffs from the bark of pagoda or maple tree.

In those days small dyestuffs plants existed in all parts of the country. With the appearance of German dyes in the market the industry began fast to lose strength. Due to the stoppage of the import of German dyes during the World War, Japanese and American dyes found their way to the Manchurian market, while the manufacture of indigo revived.

The Yamato Dyestuff Company is the only company of the kind in Manchoukuo. It was established in Dairen in 1919. It is capitalized at ¥2,000,000, of which ¥500,000 is paid up. Its productive capacity is 2,000,000 kin.

Imports.—Imports of aniline dyes and other coal tar dyes in 1937 were valued at ¥4,485,000, as contrasted with ¥2,210,000 in 1936. Principal exporters are Germany and Japan.

Match

The match industry in Manchuria was started in 1906. During the World War match factories were established in such places as Dairen, Antung, Kirin, Mukden, Yinkow, etc. In 1925 the Swedish match interests began to exert a dominant influence over the match market in Manchuria. Many of the match companies that had existed were brought under the control of the Swedish interests. In 1931 the Chinese authorities instituted the match monopoly system and charged the Sino-Japanese Match Association with the working of the system. After the Manchurian incident, the Swedish interests applied for permission to join the association. Thereupon, a match association was formed anew embracing all the entrepreneurs concerned in Manchoukuo and simultaneously public markets were established as a marketing organ. The whole amount of the capital involved was taken up by the Japanese interests.

In July, 1932 after the establishment of Manchoukuo the public markets were brought under the direct control of the Department of Finance of the new Government. The Swedish interests disposed of all their share-holdings and withdrew from the market. Match production in 1936 amounted to 379,786 boxes.

Table 26. Match Manufacturing Companies in Manchoukuo and Kwantung (1936)

Company	Locality	Capital	Annual capacity (Boxes)	Production in 1936 (Boxes)
Kirin Match Co.	Kirin	¥ 500,000	70,570	28,445
Chinhua " "	"	160,000	32,520	12,858
Chungchih Match Co.	"	160,000	43,670	16,101
Taifeng " "	"	100,000	30,000	8,605
Nisshin " "	Hsinking	300,000	36,000	27,026
Changchun " "	"	116,800	45,000	35,151
Faoshan " "	"	115,000	45,000	37,407

	Locality	Capital	Annual capacity (Boxes)	Production in '34 (Boxes)
Huilin Match Co.	Mukden	220,000	73,470	28,375
Tanhua " "	Antung	1,200,000	44,020	21,949
Sanming " "	Yingkow	180,000	77,000	48,057
Shengsheng " "	"	100,000	66,220	21,803
Kwantung " "	"	50,000	56,170	20,722
Luchang " "	Tsitsihar	100,000	30,000	11,528
Chenhsing " "	Hulan	300,000	28,000	5,310
Mingyuan " "	Ashihho	150,000	43,670	—
Changheng " "	Tunghua	200,000	25,157	4,602
Dairen " "	Dairen	500,000	50,000	5,847
Total	—	4,501,800	796,467	379,786

Gunpowder and Other Explosives

Gunpowder, ammunition and arms are manufactured by the Mukden Arsenal. Explosives for the use of mining and engineering are made by the Manchuria Mining Drugs Company, which was opened in 1919. By way of pursuing the policy of bringing under government control the manufacture and sale of gunpowder, which has an important bearing upon the preservation of peace in the country, the Civil Affairs Department of Manchoukuo has established a special concern by merging all the powder manufacturing companies throughout the country. The new company is known as the Manchurian Gunpowder Marketing Company, Limited, and under the direct supervision of the minister of civil affairs. It is capitalized at 500,000 yuan, of which 250,000 yuan is taken up by the Manchoukuo Government and the remaining half by the South Manchuria Railway Company, the Mukden Arsenal, the Pensihu Iron Manufacturing Company and others.

Bricks

The manufacture of bricks in Manchuria is very old in origin. The relics of ancient times, which are sometimes found, prove of fine quality. Black bricks, which are used at present, are of very inferior quality. They are produced chiefly in Mukden, Hsinking, Tsitsihar, Taonan, etc. Those which are generally known as red bricks are manufactured at factories of a considerable size. It was over a quarter of a century ago that the manufacture of this kind of bricks was started in Manchuria. With the increase in the demand for machine-made red bricks, and the accompanying growth of new enterprises, the industry has of late appreciably developed.

The demand for bricks throughout Manchoukuo in 1935 totalled 150,000,000 pieces in Mukden and 500-600,000,000 in Hsinking, Dairen and Harbin and other towns combined.

There are about 60 Japanese and Manchou-

kuoan bricks works. Fireproof bricks are manufactured exclusively by the Dairen Ceramic Company, the Higashigaoka Factory of the Fushun Ceramic Company, the Showa Steel Works, the brick factory of the Pensihu Iron Works, etc. The capacity of all those brick works was 40,000 metric tons in 1933 and 70,000 tons in 1935.

Import & Export.—Manchoukuo's exports of brick and tiles amounted in 1937 to ¥452,000 as contrasted with ¥302,000 in 1936. Imports of tiles in 1937 were valued at ¥811,000.

Earthen Ware and Porcelain.—The production in Manchoukuo is still comparatively small. The major portion of the demand which is increasing rapidly, is supplied by imports from China and Japan. Since very early days, water jars and other primitive potteries have been manufactured in such places as Mukden, Fushun, Hsinking and Pensihu.

There are several pottery and porcelain companies in Manchuria. The largest of them is the Tahoa Pottery and Porcelain Company, which was formerly a laboratory of the South Manchuria Railway Company. It was in October, 1920 that it was separated from the South Manchuria Railway Company and reorganized as an independent concern under the present title in Dairen. It was also the first company of the kind established in Manchuria. Capitalized at ¥155,000, the Company turns out kitchen utensils for the Manchoukuoans and also insulators. The annual productive capacity is 4,500,000 pieces, valued at ¥220,000. All the rest are small concerns. Principal ones are as follows:—

Huitung Ceramics Co. (Capacity, 2,800,000 pieces, value ¥100,000); Adachi Ceramics Works (Capacity 3,600,000 pieces, value ¥140,000); Tung Sheng Ceramics Works (Capacity 4,000,000 pieces, value ¥160,000); Liaotung Ceramics Works (Capacity 2,800,000 pieces, value ¥90,000).

Import & Export.—The import and export of chinaware, enamelledware and glass, etc. amounted in 1937 to ¥6,064,000 and ¥1,766,000, respectively

IV. BEAN OIL & CAKE

Bean Oil Milling

The production of soya bean oil and beancake is the most important enterprise of Manchoukuo from the standpoint of value of production among all manufacturing industries of the country. In 1937 the output of bean oil and beancake was valued at ¥104,000,000, accounting for approximately 29 per cent. of total industrial production. Of this amount bean oil represented ¥32,000,000 and bean-cake ¥72,000,000.

The growth of this enterprise is due to the new uses found for bean oil in the last quarter century, and Manchoukuo's exports of bean oil and bean cake form the largest item among her total exports. The export in 1937 of bean oil amounted to ¥25,342,000 and that of bean cake ¥62,335,000. Combined they accounted for approximately 48 per cent. of total exports.

At first the main business of the industry was the extracting of linseed oil. The primitive linseed oil extraction method was applied to soya beans in Tiehling and Changchun (present Hsinking) districts, important market of beans, some sixty years ago. As the result obtained was satisfactory, the bean oil industry commenced. At that time, the bean oil was directed for local consumption alone, and was used for cooking, lighting, and other domestic purposes.

The original method of pressing oil out of

beans was very simple and primitive, only hand or mule operated wedge or screw system being used. But with the rapid progress made in the utilization of bean oil and the increased demands abroad, the method of oil abstraction was improved. Hydraulic power came to be used in place of human labour or mule power, in operating the presses. Then a more scientific method of abstraction by means of chemical solvents was discovered by the Central Laboratory of the South Manchuria Railway Company. Under this new abstraction method, benzene, benzol or alcohol is used to abstract and solve oil contained in beans.

Uses of Bean Oil.—The uses of soya bean oil have increased markedly in the last three decades. At present they are used for such diversified purposes as the manufacture of soap, as a lard and butter substitute, as a constituent of paint, varnish and shellac, glycerine, water proofing, and as substitutes for rubber and petroleum.

Bean Cake.—Soya bean cake is used for various purposes, the principal uses being fertilizer and animal feed, while with further processing it is manufactured into a celluloid substitute, medicine, sizing for paper making and for "Ajinomoto." It is also used extensively for the manufacturing of sauce material, bean flour and "shoyu," and "miso."

Table 27. Output of Bean Oil in Manchoukuo and Kwantung
(Volume in 1,000 kin; Value in ¥1,000)

	Dairen		Antung		Yingkow		Harbin		Hsinking		Total incl. others	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1932....	154,620	21,152	22,926	2,627	26,235	3,675	17,271	2,363	3,332	456	238,720	32,657
1933....	98,290	13,613	17,284	2,326	20,541	2,640	16,409	1,869	2,923	416	192,180	26,617
1934....	118,415	11,178	20,211	2,110	14,935	1,378	18,135	1,400	3,730	391	214,175	20,216
1935....	117,620	15,020	12,404	2,124	14,803	2,665	19,564	2,847	3,686	664	198,165	25,308
1936....	97,285	19,428	7,692	1,671	10,860	2,148	16,222	3,655	2,335	530	157,760	31,505
1937....	65,486	14,079	6,066	1,326	11,170	2,268	18,051	3,560	2,385	583	193,168*	21,818*

Note: * The total output in 1937 is exclusive of production in localities other than those mentioned above.

Table 28. Output of Bean-cake in Manchoukuo and Kwantung
(Volume in 1,000 pieces; Value in ¥1,000)

	Dairen		Antung		Yingkow		Harbin		Hsinking		Total incl. others	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1932....	30,924	52,262	4,585	6,236	5,247	8,290	3,454	5,838	712	1,211	47,744	80,687
1933....	19,658	30,470	3,457	5,081	4,108	5,834	3,282	2,790	682	757	38,436	59,576
1934....	23,683	27,709	4,042	5,303	2,987	3,495	3,627	2,902	857	771	42,835	50,117
1935....	23,524	31,992	2,481	4,406	2,961	3,464	3,913	4,578	967	1,276	39,633	53,901
1936....	19,457	39,303	1,538	3,132	2,172	4,388	3,244	4,834	705	1,213	31,552	63,135
1937....	13,322	29,942	1,209	2,689	2,049	4,639	2,933	4,955	491	854	20,005*	43,073*

Note: * The total output in 1937 is exclusive of production in localities other than those mentioned above.

Table 29. Number of Bean-cake Mills and Productive Capacity

	South Manchuria Districts				North Manchuria Districts		Total
	Dairen	Antung	Yingkow	Other places	Harbin	Other places	
No. of mills	1923..... 87	25	29	416	42	7	606
	1929..... 59	26	22	297	40	28	472
	1933..... 50	23	20	238	43	28	402
	1936..... 45	22	14	289	24	28	422
Productive capacity in 1,000 pieces of bean-cake per day	1923..... 308	45	42	128	87	5	615
	1929..... 218	54	39	130	83	46	570
	1933..... 149	37	33	88	94	38	439
	1936..... 173	36	29	90	57	38	423

Exports.—Exports of bean oil and beancake amounted to almost 90 million yen. The principal important items in the country's foreign principal destinations of these products are given sales. In 1937 the exports of these products below:

Table 30. Export of Bean Oil and Bean-cake By Destinations

(a) Bean Oil								
Volume (1,000 piculs):	Japan & Chosen	China	Hongkong	Germany	Great Britain	Netherlands	U.S.A.	Total incl. others
1932.....	6.4	1,508.6	336.7	69.8	103.8	16.5	2,120.5
1933.....	4.6	759.3	403.4	81.1	41.6	32.4	1,342.3
1934.....	21.9	527.1	26.6	723.2	41.6	169.3	7.4	1,609.0
1935.....	12.5	161.0	151.6	434.3	264.0	189.6	99.5	1,479.1
1936.....	20.3	160.9	168.7	430.0	188.0	63.4	42.2	1,109.7
1937.....	10.0	38.4	108.8	323.5	57.4	411.1	98.5	1,160.9
Value (MY1,000):								
1932.....	78.8	17,932.4	3,768.4	776.5	1,085.9	198.3	24,511.6
1933.....	62.7	10,519.3	5,496.5	1,127.3	569.7	449.1	18,472.6
1934.....	301.8	4,792.1	316.0	7,702.7	454.1	1,754.2	81.6	16,262.2
1935.....	177.9	2,208.1	2,052.3	5,935.4	3,584.4	2,580.0	1,370.2	20,132.2
1936.....	429.3	3,109.8	3,290.8	8,182.6	3,550.7	1,235.5	860.0	21,382.7
1937.....	219.2	846.5	2,410.7	6,730.7	1,303.0	9,252.5	2,197.1	25,842.9
(b) Bean-cake								
Volume (1,000 piculs):	Japan & Chosen	China	Germany	Netherlands	U.S.A.	Great Britain	Total incl. others	
1932.....	11,841.1	7,913.2	724.1	190.9	202.6	56.4	23,518.8	
1933.....	12,633.3	3,859.8	138.3	85.9	418.5	27.3	17,788.4	
1934.....	16,305.8	3,010.9	154.2	73.4	502.6	15.8	20,380.0	
1935.....	12,634.1	3,175.1	111.0	9.9	648.3	32.7	16,925.4	
1936.....	11,614.7	1,820.7	75.6	4.2	68.2	0.8	14,026.7	
1937.....	10,769.3	1,652.5	70.7	14.0	624.9	....	13,367.7
Value (MY1,000):								
1932.....	34,436.9	24,699.8	1,780.9	424.2	543.2	165.9	66,301.4	
1933.....	40,948.3	12,975.9	471.0	257.4	1,264.6	80.7	57,614.3	
1934.....	41,376.0	7,474.5	385.6	183.5	1,256.4	39.4	51,508.8	
1935.....	38,075.8	9,945.8	333.0	29.6	1,945.0	98.2	51,370.1	
1936.....	43,220.2	7,340.8	320.3	12.6	1,610.1	4.5	53,126.9	
1937.....	50,292.2	7,712.9	300.6	58.7	2,896.4	....	62,335.7

V. FOODSTUFFS & DRINKS

Distilling and Brewing

Kaoliang

The distilling of kaoliang spirit is the most important of this line of industry in Manchoukuo. According to the returns of the Kwantung Bureau, the output of this spirit in 1934 was 9,792,000 koku, valued at ¥497,529 in Kwantung Province and 33,789 koku, valued

at ¥1,131,528 in the S. M. R. Zone, totalling 43,581 koku, valued at ¥1,629,054. The principal places of production of kaoliang spirit are Liaoyang, Mukden and Hsinking. Kaoliang spirit has a special flavour acceptable to all the people and is much in demand.

Spirit.—Formerly, the distilling industry in

North Manchuria was carried on by small distilleries. On the establishment of a big distillery under Japan-Manchoukuo joint management in November, 1933, some of those distilleries were closed down and the rest suspended operation, with the result that the industry has been placed under smooth control.

The company referred to above is styled the

Daido Alcohol Distilling Company, which was brought into being by purchasing plants owned and managed by Mr. Su Peng-chi. It is capitalized at ¥1,670,000 which is paid up. It has three plants with a total annual capacity of 40,000 koku. The Company is also planning the manufacture of an alcoholic fuel to replace gasoline for the use of motor-cars.

Table 31. Production of Liquors in Kwantung

(Volume in koku; Value in yen)

	No. of plants	Production					No. of plants	Production			
		Japanese sake		Chinese liquors				Japanese sake		Chinese liquors	
		Volume	Value	Volume	Value		Volume	Value	Volume	Value	
1931..	38	4,453	243,406	28,297	949,157	1934..	69	39,705	2,833,105	43,581	1,629,054
1932..	44	5,119	262,594	45,639	1,391,950	1935..	84	47,813	3,548,293	43,180	2,175,109
1933..	53	14,033	790,980	72,657	1,628,077	1936..	79	47,803	3,425,421	164,606	3,437,584

Note: Factories employing less than five workers excluded.

Saké

Many places of Manchoukuo are suited for the brewing of saké by reason of the quality of water. This industry has therefore gradually developed with the increase in the number of Japanese residents. The output of saké for 1936 amounted to 47,803 koku, valued at ¥3,425,421.

Beer

The demand for beer in Manchuria, was 170,000 dozens, valued at ¥360,000 in 1926.

Imports of beer, including ale, porter and stout amounted to ¥3,826,000 in 1936.

Beer brewing was carried on many years ago in Imienpo and Harbin in North Manchuria and Dairen in South Manchuria. The breweries in Dairen had long been closed down under the pressure of Japanese imports. Two breweries in North Manchuria had been the only breweries in existence in Manchuria until the Manchurian incident of 1931. Since then, the demand for beer has greatly increased due to the growth in the number of Japanese settlers.

Table 32. Beer Brewery Companies in Manchoukuo

(End of May, 1937)

	Locality	Established	Authorized Capital	Annual Capacity (Bottles)
Dai-Manshu Hop Beer Brewery Co. (a).....	Harbin	1934	¥1,500,000	5,000,000
Harbin Beer Brewery Co. (b).....	"	1936	2,000,000	4,800,000
Tahsing " " (c).....	"	"	"	3,500,000
Manchuria " " ".....	"	"	"	3,500,000
Asia " " (a).....	Mukden	1934	2,000,000	9,600,000
Oriental " " ".....	"	1936	1,000,000	5,760,000
Harbin Beer Factory.....	Harbin	1933	"	400,000
	"	1933	"	300,000
Total.....				29,360,000

Note: (a) Merged into Manchuria Beer Brewery Co., 1937.
(b) Under construction.
(c) Management of Tahsing & Co., Ltd.

Table 33. Alcohol Factories in Manchoukuo

(End of Mar., 1936)

Name of companies	Locality	24-hour Capacity (Hectolitres)	Name of companies	Locality	24-hour Capacity (Hectolitres)
Tatung (1st).....	Harbin	16.00	Chenpien.....	Taheiho	8.61
" (2nd).....	"	14.80	Shangkao.....	Harbin	6.15
" (3rd).....	"	3.08	North Manchuria		
Szehohsing.....	Hailar	3.08	Sugar Mfg. Co.	Ashjh-ho	8.61
Tungyung.....	Tungning	1.23	Manchuria Sugar Mfg.		
Chunghua.....	Harbin	5.54	Co.	Mukden, Hulan	8.61
Tahsing.....	"	3.08			
Tunghsing.....	"	2.46	Total.....		81.25

Soy

In sympathy with the rapidly increasing number of Japanese residents since the foundation of the country, the soy industry has made

marked developments. The output of soy in 1936 amounted to 116,734 koku, valued at ¥1,373,284. Imports of soy were valued at ¥882,544.

Table 34. Production, Etc. of Soy and Miso (Bean paste) in Kwantung

	No. of plants	Production			
		Miso		Soy	
		Volume (Kwan)	Value (Yen)	Volume (Koku)	Value (Yen)
1931.....	16	646,691	230,725	20,950	520,633
1932.....	17	837,850	312,540	58,069	553,388
1933.....	22	953,129	338,751	39,714	923,542
1934.....	22	1,090,711	453,757	49,259	1,168,904
1935.....	24	1,357,560	495,464	52,102	1,136,847
1936.....	31	1,485,739	712,848	116,734	1,373,284

Note: Factories operating less than five workers excluded.

Sugar

The climate of Manchuria is suited for the cultivation of beet-root but not for sugar cane. The cultivation of beet-root was started in 1906 or 1907. The manufacture of sugar from beet-root was initiated in 1909 when a sugar

mill was established at Ashihho. Since then no small number of sugar mills have been set up in both North and South Manchuria. Sugar production has shown a significant expansion, rising from 30,246 piculs in the crop year of 1933 to 194,422 piculs in the crop year of 1938.

Table 35. Sugar Production in Manchoukuo and Kwantung (In piculs)

Crop Year Ending Feb.	Manchuria Sugar Manufacturing Co.				North Manchuria Sugar Mfg. Co., Ashihho	Grand Total
	Mukden (Former South Manchuria Sugar Mfg. Co.)	Tiehling	Harbin (Former Hulan Sugar Mfg. Co.)	Total		
1920.....	23,496	—	—	23,496	21,021	44,517
1921.....	58,434	—	—	58,434	15,834	74,268
1922.....	60,075	—	—	60,075	9,282	69,357
1923.....	73,702	16,382	38,220	90,084	12,831	141,135
1924.....	52,156	23,590	40,950	75,746	43,680	160,376
1925.....	13,545	24,659	*40,000	38,204	27,437	*105,641
1926.....	50,191	47,003	—	97,194	*30,681	*127,875
1927.....	—	—	—	—	*11,712	*11,712
1928.....	—	—	—	—	*31,941	*31,941
1929.....	—	—	2,379	—	—	2,379
1930.....	—	—	1,830	—	—	1,830
1931.....	—	—	—	—	—	—
1932.....	—	—	—	—	—	—
1933.....	—	—	—	—	30,246	30,246
1934.....	—	—	—	—	64,536	64,536
1935.....	—	—	—	—	52,124	52,124
1936.....	—	—	—	—	68,715	68,715
1937.....	49,117	—	—	49,117	55,689	104,806
1938.....	67,403	—	58,499	125,902	68,520	194,422

Note: * Estimate.

Harvest period in Manchoukuo is chiefly from Nov. to Feb. of the following year.

Table 36. Sugar Manufacturing Companies in Manchoukuo and Kwantung (End of Apr., 1938)

Factories	Capacity per 24 hour day (in M. tons)	Capital Paid-up (¥1,000)	Established	Interests
Manchuria Sugar Manufacturing Co. ...	{ Beet Sugar 500 Refined Sugar .. 9 }	2,500	1935	Japanese & Manchoukuoan
Tiehling Harbin	{ Beet Sugar 500 Beet Sugar 350 }			
North Manchuria Sugar Manufacturing Co. ...	{ Beet Sugar 400 Refined Sugar... 40 }	2,000	1934	Japanese & White Russian

Table 37. Demand and Supply of Sugar in Manchoukuo and Kwantung

(In piculs of 60 kilograms)

	Production	Import	Export	Re-export	Consumption	Consumption per capita
1928.....	—	1,218,204	—	—	1,218,204	3.69
1929.....	—	1,422,923	—	—	1,422,923	4.31
1930.....	—	1,360,762	—	—	1,360,762	4.04
1931.....	—	1,108,939	—	—	1,108,939	3.25
1932.....	—	1,558,139	828	172,834	1,384,477	4.01
1933.....	30,246	2,001,214	15	437,106	1,594,369	4.62
1934.....	64,536	1,548,497	16	313,838	1,299,179	3.58
1935.....	52,124	1,776,721	—	260,348	1,568,497	4.58
1936.....	68,715	3,696,968	—	1,907,069	1,858,614	5.25
1937.....	104,806	2,798,117	—	1,000,000*	1,902,903*	5.36
†1938.....	194,422	—	—	—	—	—

Note: Exclusive of cube sugar in 1932.

† Estimate.

* Re-exports include sales principally to China in recent years.

Table 38. Sugar Imports of Manchoukuo and Kwantung By Kinds

(In piculs of 60 kilograms)

	Under Dutch Standard No. 11	Plantation white sugar	Refined sugar	Rock sugar	Cube & loaf sugar	Total	Molasses
1926.....	164,585	125,016	510,607	50,104	17,115	867,427	—
1927.....	224,078	431,262	348,514	56,222	29,444	1,089,520	—
1928.....	188,643	380,461	514,486	42,254	14,320	1,140,164	—
1929.....	164,321	677,238	400,013	63,403	27,634	1,332,609	—
1930.....	211,767	346,997	685,323	45,380	19,180	1,308,647	—
1931.....	112,146	249,710	677,173	37,723	11,859	1,088,611	—
1932.....	188,951	230,879	1,090,989	47,320	—	1,558,139	44,843
1933.....	206,661	37,318	1,688,838	68,397	—	2,001,214	65,526
1934.....	176,295	7,117	1,282,761	60,797	21,527	1,548,497	34,616
1935.....	142,671	7,047	1,544,225	50,671	32,107	1,776,721	59,506
1936.....	334,526	197,831	3,070,203	58,957	35,451	3,696,968	182,791
1937.....	523,974	341,819	1,860,122	34,581	37,621	2,798,117	85,788

Flour Milling

Flour milling is an important industry in Manchoukuo. In the year ending February, 1938 the production of wheat flour amounted to ¥29,432,000 and was exceeded in value only

by the bean cake and tobacco manufacturing industries. Investment in the enterprise as at the end of 1935 was computed at ¥8,971,000. In 1937 there were 70 mills with a production capacity of 119,840 bags of 22 kilograms each a day.

Table 39. Statistics of Flour

Year Ending Feb.	Flour mills		Demand and supply (in bag of 22 kg.)		
	No.	Prod. capacity per day	Production	Import	Consumption
1933.....	—	—	8,809,652	22,931,124	31,740,776
1934.....	—	—	7,847,689	23,695,043	31,542,732
1935.....	70	110,540	11,043,073	21,083,942	32,127,015
1936.....	—	—	23,720,796	9,536,683	33,257,479
1937.....	70*	119,840*	29,432,378	3,553,671	32,986,049

Ice

Dairen is the biggest ice consuming market in Manchoukuo. The Dairen Ice Manufacturing Company, which is the sole supplier to the market, has a productive capacity of about

1,250 tons. The amount of ice manufactured in 1934, as shown by the returns of the Kwantung Bureau, was 10,593,716 kan, valued at ¥560,594 in Kwantung Province and at 3,209,314 kan, valued at ¥149,163 in the S.M.R. Zone, totalling 13,805,030 kan, valued at ¥509,757.

VI. ELECTRIC & GAS

Electric and Gas Industries

Electric Industry.—The electric industry was started in Manchuria in October, 1902 when Russia established a generating house at Hamacho, Dairen as a subsidiary business of the Chinese Eastern Railway, now known as the North Manchuria Railway. After the Russo-Japanese War the electric industry showed appreciable developments under Japanese influ-

ence. In 1905 Port Arthur was lighted by electricity and in the same year the Yingkow Waterworks Electricity Company was established. In 1907 there was brought into being the Antung Electric Company. On being established the same year the South Manchuria Railway Company started the industry of supplying electricity to Dairen and opened a power house in Fushun and Mukden in 1908 and another in Changchun in 1910.

Table 40. Capacity and Generation of Electric Power in Manchoukuo and Kwantung

	Capacity (In K.W.)			Generation (1,000 K.W.H.)		
	Japanese Undertaking	Manchoukuo Undertaking	Total	Japanese Undertaking	Manchoukuo Undertaking	Total
1907.....	900	200	1,100	950	100	1,050
1911.....	7,500	1,800	9,300	16,740	1,940	18,680
1916.....	17,700	3,600	21,300	58,730	4,520	63,250
1921.....	25,000	7,700	59,900	129,060	10,700	139,760
1926.....	109,400	27,000	136,400	260,070	34,910	294,980
1929.....	128,400	40,800	169,200	400,775	57,780	458,550
1932.....	203,800	60,800	264,200	492,910	100,000	592,910
1933.....	206,318	64,900	271,218	567,537	97,863	662,400
1934.....	.....	.....	388,800	.....	.....	771,717
1935.....	.....	.....	395,000	.....	.....	1,083,861
1936.....	.....	.....	410,000	.....	.....	1,350,506

Table 41. Electric Power Generation

	Elec. power generation (K.W.H.)	To total population		Supplying Capacity	
		Total population	Per capita (K.W.H.)	Population	Per Capita (K.W.H.)
1934.....	771,716,447	32,015,248	24.2	4,815,478	160.3
1935.....	1,083,860,242	35,822,189	30.3	5,126,388	211.0
1936.....	1,350,506,875	35,889,982	37.6	5,519,714	244.5
Of which:					
Kwantung.....	347,837,792	1,148,034	302.8	1,148,034	302.8
Manchoukuo.....	1,002,669,083	34,741,948	28.8	4,371,680	228.8

Table 42. Prospective Sites for Hydro-Electric Power Generation

Name of River	No. of Prospective Generation Sites	Ordinary Capacity for Power Generation	Maximum Quantity of Water Consumption (Cubic metres per Sec.)
Mutan-kiang.....	6	277,500 K.W.	951.6
Tungwang-ho.....	2	35,000	157.2
Tani-ho.....	1	30,000	120.0
Sunghua-kiang.....	4	142,500	604.0
Muleng-ho.....	1	22,500	80.0
Hunchun-ho.....	1	20,000	61.2
Nun-kiang.....	3	95,000	354.8
Tumen-kiang.....	4	87,500	213.4
Hun-ho.....	7	535,000	1,858.0
Tatsu-ho.....	1	10,000	36.8
Liao-ho.....	1	80,000	242.8
Luan-ho.....	5	195,000	632.6
Taling-ho.....	1	20,000	77.6
Total.....	37	1,550,000	5,390.0

Progress of Control of Electric Power.—In view of a steady and swift increase in the demand for electric power ever since the foundation of the country, the Government of Manchoukuo recently drew up a programme for a network of the transmission of electric current on the basis of the electric control policy. As for the generation of electricity by hydraulic power, which is the essence of the programme, the Second Sungari and Yalu are to be depended on for the realization of the first stage of the programme, the Government taking up the part relating to the Second Sungari.

The Government's scheme in regard to the utilization of the waters of the Second Sungari will spread over five years commencing with the financial year of 1937. The Government intends to spend fifty million yuan to finance the first

stage of the project, of which 35 million yuan will be raised by the flotation of a State loan. According to an official announcement, a huge dam is to be erected at a point 24 kilometres upstream from the city of Kirin to conserve the waters of the river, where a power station will also be established. When this dam is completed, the world's second largest artificial lake will automatically be created there. In size, the lake will be next to the world famous Boulder Lake of 227 square miles created in the United States in October, 1936 by stemming the waters of the Colorado River.

The project is of two-fold importance, because, in addition to hydro-electric generation, an area of altogether 160,000 Japanese cho (one cho is equivalent to 2.45 acres) along the lower reaches of the river, which is now a waste land can be irrigated by the lake for cultivation of farm crops, including rice. Further, it is

expected that about 10,000 Japanese farm households can be transplanted to this area for agriculture. Early in 1938 the Manchoukuo Government ordered three water wheels and three generators, costing roughly ¥7,500,000 from the Westinghouse Company. Each of the generators will generate 70,000 volt amperes. As the Sungari hydro-electric powerhouse needs five more generators before the completion of its equipment the Manchoukuo Government was negotiating with the Otto-Wolf Company on the purchase of three generators. The remaining two were to be purchased either from Japan, Europe or America after the five generators are installed. The power station planned will have a generating capacity of 180,000 K.W. of electricity during the initial stage. Power thus generated will be transmitted to Kirin, Hsinking, Ssuning kai and Harbin.

Table 43. Consumption of Electric Light & Power, Classified by Provinces (End of 1937)

Manchoukuo:	Generating capacity (K.W.)	Receiving capacity (K.V.A.)	Electric light		Electric power	
			No. of lamps	No. of consumers	K.W. installed	No. of consumers
Fengtien Province.....	258,400	202,910	955,156	156,496	133,011	5,181
Kirin.....	50,965	6,285	440,419	68,830	27,023	2,863
Pinkiang.....	40,573	—	467,097	55,321	21,119	2,830
Mutankiang.....	4,483	—	57,196	9,252	2,793	285
Antung.....	16,125	100	108,396	24,112	15,128	736
Chinchow.....	11,150	320	97,755	14,745	2,775	329
Tunghua.....	530	—	10,230	2,772	85	11
Chientao.....	265	5,200	45,501	14,900	1,375	115
Lungkiang.....	8,777	400	108,368	18,948	3,400	412
Jehol.....	1,095	—	25,905	4,249	118	32
Hsingan North.....	1,320	—	33,810	5,749	525	98
Hsingan South.....	850	—	13,697	2,225	364	42
Sankiang.....	2,856	—	37,927	6,082	2,255	93
Heiho.....	547	—	10,380	1,706	90	11
Railway.....	417	2,250	7,451	1,015	—	—
Total.....	398,358	217,465	2,419,288	386,402	210,061	13,038
Kwantung Province.....	85,280	6,650	513,635	86,332	86,325	5,081
Grand total.....	483,638	224,115	2,932,923	472,734	296,386	18,119

Manchuria Electric Corporation

The electric light and power industry of Manchoukuo was formed into a virtual monopoly of the Government by the establishment on December 1, 1934 of the Manchuria Electric Corporation, capitalized at ¥90,000,000. With the creation of this new organ the independent electric concerns, which had operated for years in Manchuria under what were believed to be wasteful conditions, merged their identity. The new concern was organized by the following companies:—Japanese interests: South Manchuria Electric Co., Yingkow Electric and Waterworks Co., North Manchuria Electric Co.; Manchurian interests: Mukden Electric Light Office, Hsinking Electric Light Office, Kirin Electric Light

Office, Harbin Electric Business Bureau, Tsitsihar Electric Light Office, Antung Electric Co. With its head office in Hsinking, the Company has branch offices in ten different places, namely, Dairen, Mukden, Hsinking, Harbin, Antung, Yingkow, Chihnsien, Anshan, Kirin, and Tsitsihar. Besides, there are five sub-branches and six business offices, the former under the direct control of branches and the latter of the head office.

Electric Power Consumption by Industries.—The demand of electric power has grown with giant strides. In 1937 the total consumption was 737,212,000 K.W.H. as compared with 551,605,000 K.W.H. in 1936. The following table shows the electric power consumption by industries:

Table 44. Consumption of Electric Power in Manchoukuo & Kwantung
Classified by Industries
(In 1,000 K.W.H.)

	1936			1937		
	Ordinary	Special	Total	Ordinary	Special	Total
Textile	6,057	30,375	36,432	7,765	36,901	38,666
Metal	2,306	110,135	112,441	2,250	159,792	162,042
Mechanical	4,272	22,266	26,538	4,857	28,116	32,973
Ceramic	1,857	18,249	21,106	2,850	21,375	24,225
Chemical	2,817	149,356	152,173	3,675	161,569	165,244
Bean Oil Industry	801	6,341	7,142	1,106	6,006	7,112
Lumbering & Woodworking	5,208	585	5,793	6,129	1,257	7,386
Printing & Bookbinding	1,357	.....	1,357	1,674	.....	1,674
Provisions	14,785	12,559	27,344	18,300	24,433	42,733
Miscellaneous	903	.....	903	1,054	93	1,137
Mining	296	8,865	9,161	568	18,334	18,902
Agriculture & Fishery	486	1,455	1,941	745	1,223	1,968
Electric Industry .....	.....	96,062	96,062	.....	162,896	162,896
Total including others	55,504	496,101	551,605	67,764	669,448	737,212

Electric Companies.—The total fixed assets of amount the bulk was represented by the Manchuria Electric Company. The electric companies in the country were assessed at MY136,427,379 in 1930 Of this

Table 45. Electric Companies in Manchoukuo
(End of 1936)
(M.Y)

	Paid-up Capital	Reserve funds	Bonds & Debentures	Fixed Assets
Government Owned .....	.....	.....	.....	2,203,833
Manchuria Electric Co.	90,000,000	3,043,000	25,000,000	108,115,842
Other Joint Stock Cos.	14,259,655	2,074,833	1,395,299	16,426,948
Others	22,375,000	1,001,357	.....	3,823,983
Cos. for Self-consumption and supplies	7,000,000	.....	.....	19,985,656
Total	133,634,655	6,119,190	26,395,299	136,427,379

Electric Equipments.—The extension length stations. Total transformer capacity for the of transmission lines in 1936 was 22,739 kilo- year was 585,341 K.V.A. meters. There were in all 199 transformer sub-

Table 46. Equipments for Electric Power Distribution
(End of 1936)

	Transformer Sub-station	Capacity of Transformer (K.V.A)	Extension Length of Transmission Lines (Kilometers)
Manchuria Electric Co.	108	450,166	17,912
Subsidiary Cos. of Manchuria Electric Co.	50	20,055	3,385
Cos. for Self-consumption and Supplies	32	111,680	1,013
Government Owned	7	3,340	.....
Others	2	100	424
Total	199	585,341	22,739

Electricity Sold by Manchuria Electric Company.—Sales of electricity by the Manchuria Electric Company have risen steadily. In 1937 total sales amounted to 859,278,312 K.W.H. Detailed statistics are subjoined:

Table 47. Electricity Sold by the Manchuria Electric Co.

	No. of Consumers	Lamps and motors installed	Capacity (K.W.)	No. of K.W. installed	K.W.H. sold
Electric Light:					
Meter rates	1935..... 1,487,644	17,227,875	500,555	.....	62,889,548
	1936..... 1,807,150	20,063,548	690,749	.....	73,080,872
	1937..... 2,225,022	23,188,652	824,178	.....	79,307,422
Demand rates	1935..... 1,089,116	2,411,088	69,760	.....	24,892,214
	1936..... 1,301,309	2,810,725	80,787	.....	28,543,407
	1937..... 1,764,396	3,655,756	99,424	.....	34,531,332
Receptacles	1935.....	448,104	.....	.....	.....
	1936.....	729,018	.....	.....	.....
	1937.....	904,089	.....	.....	.....
Temporary rates	1935..... 5,663	52,532	2,105	.....	708,862
	1936..... 7,146	47,048	3,517	.....	489,363
	1937..... 7,382	53,968	3,329	.....	518,695
Electric Power:					
Ordinary	1935..... 69,439	109,727	506,502	496,085	44,697,743
	1936..... 77,782	134,389	580,866	563,052	55,503,612
	1937..... 88,337	152,191	650,951	629,193	67,764,127
Special	1935..... 1,367	.....	1,765,055	1,306,972	329,906,869
	1936..... 1,830	.....	2,205,252	1,578,046	496,101,320
	1937..... 2,543	.....	2,946,163	2,047,570	669,448,545
Temporary	1935..... 746	1,386	.....	15,235	1,168,078
	1936..... 680	1,498	.....	12,565	876,725
	1937..... 1,075	2,284	.....	20,123	1,030,013
Electric Heat	1935..... 45,520	96,825	96,206	84,389	4,159,266
	1936..... 59,928	127,954	123,225	112,675	5,930,943
	1937..... 69,509	152,013	142,385	131,661	6,678,178
Total	1935..... 2,699,495	.....	2,940,183	1,902,681	468,422,580
	1936..... 3,255,825	.....	3,684,396	2,266,338	660,526,242
	1937..... 4,158,264	.....	4,666,132	2,825,547	859,278,312

Table 48. Subsidiary Companies of the Manchuria Electric Company

	1935	1936	1937
No. of Companies	26	21	14
Capital:			
Authorized (¥1,000)	8,008	7,627	18,530
Paid-up (¥1,000)	5,551	5,812	13,968
Investment of Manchuria Electric Co. (¥1,000)	4,789	6,042	8,723
K.W.H. generated and purchased .....	.....	82,549,196	64,564,117
K.W.H. sold .....	.....	.....	54,485,850
No. of employees:			
Japanese	417	469	376
Manchoukuoans	708	554	436
Total	1,125	1,023	812
Electric light:			
Meter rates:			
No. of consumers	24,411	23,810	21,433
No. of lamps	257,558	247,392	211,149
Demand rates:			
No. of consumers	50,635	56,147	42,408
No. of lamps	110,116	114,552	83,641
Electric power:			
Ordinary:			
No. of consumers	944	1,000	824
K.W. installed	7,281	9,692	6,656
Special:			
No. of consumers	45	57	43
K.W. installed	6,829	10,481	12,914
Electric heat:			
No. of consumers	763	998	876
K.W. installed	1,320	1,761	1,228

Electric Power Projects.—Grandiose projects for increasing electric power generation have been made by the Manchoukuo Government. It is estimated that a total of 2,450,000 k.w. of electric power can be generated by the end of the 5-Year Plan in 1941. According to this project the rivers and Chingpai lake will yield 1,090,000 k.w. of hydro-electric power, while thermal electric plants will account for 1,361,000 k.w.

Table 49. Electric Power Generation By Rivers & Localities

(a) Hydro Electric Power:	1,000 K.W.
Yalu River	360
2nd Sunghua River	450
Hun-Kiang	200
Chingpai Lake	80
Total	1,090
(b) Thermal Electric Power:	
Fushun	330
Fuhsin	320
Kantsingtzu	89
Harbin	43
Hsinking	49
Sian	33
Shulan	72

Table 50. Details of Gas Industry

Year ending March 31	Extension length of main pipe (Meters)	Production (1,000 cubic feet)	Demand classified (1,000 cubic feet)			Total receipts (¥1,000)	Total number of users	
			House- hold	Light- ing	Industrial use			
1933.....	581,506	996,882	446,604	4,591	486,328	937,523	1,738	83,860
1934.....	626,679	1,115,850	526,428	3,389	532,326	1,062,143	2,017	88,215
1935.....	690,972	1,252,371	682,640	2,856	535,594	1,221,090	2,402	98,220
1936.....	754,872	1,392,803	777,215	2,629	580,413	1,260,258	2,771	50,750
1937.....	803,792	1,543,965	861,303	2,511	625,646	1,489,460	3,027	69,381
1937 classified:								
South Manchuria Gas Co.:								
Dairen	312,602	592,882	496,535	2,256	64,266	563,057	1,250	31,863
Anshan	45,007	46,908	42,372	—	3,099	45,471	107	3,818
Mukden	156,490	208,011	150,040	—	47,196	197,236	592	16,248
Antung	61,127	45,655	30,151	255	11,771	42,178	117	3,015
Hsinking	143,386	172,005	140,781	—	28,106	168,887	490	10,697
Fushun Colliery of S. M. R. Co.	85,179	478,504	1,424	—	471,208	472,631	470	3,740

Note: Extension length of main pipe and total number of users as at the end of each year. Exclusive of use for self-consumption.

Table 51. Production of By-Products by South Manchuria Gas Co. in 1936

	Cokes (M. tons)	Tar (1,000 litres)	Ammonia- sulphate (M. tons)		Cokes (M. tons)	Tar (1,000 litres)	Ammonia sulphate (M. tons)
Dairen	20,022	1,582	168	Total	35,228	2,686	168
Anshan	—	—	—	Total for 1935..	30,960	2,821	135
Mukden	7,499	497	—	Total for 1934..	22,298	2,182	113
Antung	1,667	133	—	Total for 1931..	14,927	1,450	160
Hsinking	6,040	474	—				

	1,000 K.W.
Tungpientao	71
Penhsihu	59
Anshan	86
Others	310
Total	1,361
Combined total	2,450

Gas Industry

The gas industry was initiated in Manchuria by the South Manchuria Railway Company in 1910 when the Company started supplying gas to the public by establishing a furnace with a daily capacity of 300,000 cubic feet and also a gas tank of a 150,000 cubic feet capacity. In 1925 the Company set up branch plants at Mukden, Anshan and Hsinking. Simultaneously with this the gas works of the Company was reorganized into the South Manchuria Gas Company, capitalized at ¥10,000,000 which is fully paid up.

The Fushun Colliery has its own gas producing plant, and also is supplying the public. Gas production in 1937 amounted to 1,543 million cubic feet.

VII. METAL & MECHANICAL

Metals

Metallic Magnesia.—There are inexhaustible resources of magnesite in the neighbourhood of Tashichiao. The industries for its utilization have, therefore, a very bright future. At present there are three branches of this industry, viz. (1) Manufacture of fire-proof things, (2) manufacture of building materials and (3) manufacture of metallic magnesia. The first two are undertaken by the South Manchuria Mining Company, which was established in 1918 with a capital of ¥600,000. The last, or the manufacture of metallic magnesia is carried on by the Japan-Manchoukuo Magnesium Company, which was jointly established in 1919 by the South Manchuria Railway Company, the Sumitomo interests and the Rikagaku Kenkyusho (Physical and Chemical Institute) and other organizations. It is capitalized at ¥7,000,000, of which ¥3,500,000 was paid-up in 1937. The newly founded company, whose plant with an annual productive capacity of 350 metric tons is situated at Ube City, Yamaguchi Prefecture, intends to be a large factor in supplying metallic magnesia to Japan by acquiring raw materials from Manchoukuo. As the first step towards that end, the Naoetsu plant of the Rikagaku Kenkyusho with an annual productive capacity of 150 metric tons was purchased by the Company.

Aluminium.—Aluminium manufacturing in Manchoukuo holds out bright prospects. Raw materials for the manufacture of aluminium, particularly alumina shale, have been found in fairly large quantities at Fuchow, Yentai, Chinchou, Penhsihu and in other districts.

There are two aluminium companies in Manchoukuo. One of them is the Japan-Manchoukuo Aluminium Company, which was established in October, 1933 with a capital of ¥10,000,000 of which ¥7,500,000 was paid-up in 1937. The other is the Manchuria Light Metal Manufacturing Company, which was established in Nov., 1936. It is capitalized at MY25,000,000, of which ¥6,250,000 was paid-up in 1937. MY10,000,000, is taken up by the Manchoukuo Government MY14,000,000 by the South Manchuria Railway Company and MY500,000 by the Sumitomo Company and MY40,000 by the Japan Electric Industry Company and MY50,000 each by the Japan Soda Manufacturing Company and the Japan-Manchoukuo Aluminium Company. The new company is established at Fushun, and is expected to turn out 4,000 tons of aluminium a year.

The plan for expansion of aluminium output,

as drafted by the Manchoukuo government in 1937 follows:

About 60 per cent, of the production cost will be spent for electric power, which will be supplied by the projected national hydraulic electric power station, to be established on the upper reaches of the Second Sungari. The Government is planning to erect a second aluminium manufacturing plant in Kirin, capable of producing 16,000 tons of aluminium annually, besides the factory at Fushun producing 4,000 tons.

As bauxite, raw material of aluminium, is mined near Yentai, alumina will be produced at the Fushun factory, which will be sent to Kirin, where aluminium will be produced at the projected plant. It is estimated that 2 tons of alumina will be produced from 8 tons of bauxite and 1 ton of aluminium from 2 tons of alumina.

Machinery and Tool Industry

Before the foundation of Manchoukuo there were already about ten machine manufacturing works in Dairen and other places, such as the South Manchuria Railway Works, the Dairen Machinery Works, etc. Since the establishment of the state, many new projects have been launched. Principal among them are the following:

The South Manchuria Railway Works.—The South Manchuria Railway Works which has for its object the manufacturing, assembling and repairing of vehicles, was established in Shakako in 1908 and opened to business in 1911. The works, which cover an area of 600,000 tsubo, are provided with water works of their own and consists of 70 blocks with an area of 19,000 tsubo. They have a capacity of accommodating 27 locomotives, 36 coaches, and 130 goods cars at the same time.

The Dairen Machinery Works.—The Dairen Machinery Works was established in 1918 with a capital of ¥2,000,000 with the object of executing orders placed with the South Manchuria Railway Company. The company has since so much developed that its capacity is now about ten times the scope at the time of the establishment. The list of its specialities consist of rolling stocks, iron bridges, machinery, pipes for the use of water works, bean-oil manufacturing machines, rollers for road construction and improvement, machines for generating oxygen gas, electric cars, the bodies of automobiles, etc. The market for these articles is so

extensive that the Company figures prominently among the Japanese enterprises in Manchuria.

The Mukden Arms Manufactory.—The Mukden Arms Manufactory was established in 1932 with a capital of ¥2,000,000 in the form of a joint-stock corporate. The capital was taken up by the Mitsui Bussan Kaisha and the Okura Shoji Kaisha. It is engaged in the manufacture of arms and ammunitions, gunpowder and its materials, and the manufacture and repair of various machines and tools.

Anshan Steel Material Company.—It was for the purpose of meeting a swift increase in the demand for rails in Manchuria that the Anshan Steel Material Company was brought into being in July, 1932 by men interested in the Nippon Rail Company. It was organized with a capital of ¥5,000,000, of which a quarter is paid up. Furnished by the Showa Steel Works with steel ingots and slabs, the Company is engaged in the

manufacture of trucks for light railways to the estimated amount of 3,000 metric tons.

The Manchu Manufactory.—The Manchu Manufactory was established in 1934 with a capital of ¥1,500,000 (fully paid up) by purchasing the former Tafeng Iron Works at Mukden. It has for its object the manufacture of casting in general vehicles and machinery and tools. It is expected to show developments in the circles of the iron industry of Manchuria by meeting the requirements for rolling stocks and machines and tools for water works and gas heaters.

The Manchu Sumitomo Steel Pipe Company.—The Company was established in September, 1934 with a capital of ¥10,000,000 a quarter of which is paid up. With its plant set up within the compound of the Showa Steel Works, the Company intends to manufacture high grades of steel pipes with materials supplied by the Showa Steel Works.

Table 52. Imports of Machinery and Tools, Vehicles and Vessels
(In M¥1,000)

	1933	1934	1935	1936	1937
Machinery & Tools:					
Machinery, Tools and Implements, Agricultural, and parts thereof	122	158	606	987	2,306
Dynamos or Generators	120	340	243	565	948
Motors	470	2,244	1,378	2,137	2,399
Transformers	259	1,049	1,038	1,587	2,444
Machinery Pumping, and Pumps, and parts thereof	581	961	860	1,261	2,310
Machines, Sewing, Knitting, and Embroidering, and parts thereof	395	419	1,121	629	981
Machinery, Textile and parts thereof	270	518	1,549	809	1,073
Office or Sales Machines, and parts thereof ..	300	261	349	560	1,489
Prime Movers, and parts thereof	904	1,928	2,002	2,623	4,746
Hand Tools	801	1,672	1,901	2,185	3,232
Total including others	9,544	28,056	34,613	38,918	65,901
Vehicles & Vessels:					
Aeroplanes, Hydroplanes, and all other Flying Machines, and parts thereof	1,882	728	1,373	881	1,682
Locomotives and Tenders	2,110	7,684	11,429	11,839	11,079
Railway and Tramway Carriages or Wagons ..	1,814	3,088	1,068	1,237	972
Railway or Tramway Materials	6,381	8,678	12,978	12,668	11,282
Motor Trucks and Buses (incl. Chassis)	4,316	3,030	3,048	3,722	6,494
Others Cars (incl. Chassis)	2,435	3,278	2,648	2,748	3,943
Parts of Motor-Cars and Motor Tractors, (excl. of Tyres and Tubes)	1,557	1,865	2,645	3,099	6,242
Bicycles	104	151	181	166	144
Bicycle parts and accessories	994	1,356	2,895	2,018	2,309
Motor-cycles	93	98	149	113	160
Vehicles, and parts thereof	128	299	1,021	680	1,618
Total including others	22,699	30,946	39,844	39,550	46,406

Motor-car Industry.—The motor-car industry of Manchoukuo is represented by the Dowa Automobile Company, which is a special concern with Japanese-Manchoukuoan investment. Of the capitalization of ¥6,200,000 (inclusive of ¥200,000 in kind), ¥200,000 (in kind) is put

up by the Manchoukuo Government, ¥2,900,000 by the South Manchuria Railway Company and the rest by seven automobile manufacturing companies of Japan, namely, ¥460,000 each by the Automobile Industrial Co., Japan Vehicle Co., Mitsubishi Shipyard Co., Kawasaki Vehicle

Co., Tokyo Gas-Electric and Tobata Castings and ¥340,000 by the Japan Automobile Co. One-fourth of the cash capitalization is paid up. The Company was established in March, 1933 and opened in the following May. It is engaged in assembling parts of omnibuses and trucks purchased from automobile manufacturing concerns of Japan, manufacturing bodies, repairing and the sale of automobiles and parts.

Aircraft Industry.—In view of the thriving air transport business in Manchuria since the outbreak of the China incident, the Manchuria Air Transport Company was reported to have decided to establish an aircraft company at a capital of ¥30,000,000 in October, 1937. The projected company, to be a special corporation registered

with the Manchoukuo Government will comprise a motor manufacturing and body manufacturing departments. The existing Manchuria Air Transport Company's own plant will be merged to create the motor department, and a body building factory will be established on an area of 150,000 to 200,000 tsubo near Huangkutun in Fengtien Province.

In view of the importance of the aircraft manufacturing industry the Manchoukuo Government, it was reported in 1938 will subsidize the company through the Manchuria Industrial Development Corporation. The projected firm is expected to be controlled by either the Minister of Public Peace or by the Minister of Communication.

VIII MISCELLANEOUS

Tobacco

In its early stages of development the tobacco industry in Manchuria was dominated by Russian and British capital, the Russian interests being represented by I. I. Tschurin & Company and A. Lopato Sons Limited, and the British interests by the British-American Tobacco Company. Since the establishment of Manchoukuo the Japanese-owned Toa Tobacco Company has increased its influence in the country.

The demand for tobacco is yearly expanding and is now represented by over 13,000,000,000 pieces annually. The imports of cigarettes rose in 1937 but leaf tobacco showed a marked decline. Cigarette imports for 1937 amounted to 456,000,000 pieces. Leaf tobacco imports in 1937 amounted to 21,345 catties.

Principal tobacco companies in Manchuria are the following:

I. I. Tschurin & Co.—This company was originally started as a petty firm in Nikol'sk in 1887. It steadily developed with years. Since the Russian Revolution, Harbin has been the centre of the activity of the Company. There were days when it exerted so much influence as to mar the invasion of the Anglo-American Trust and the Toa Tobacco Company.

Chi Tung Tobacco Company.—The Chi Tung Tobacco Company is a Manchoukuo corporation organized under Manchoukuo laws and capitalized at 52,325,000 yuan. This Company has taken over the business of the British-American Tobacco Company in Manchoukuo and the

British-American Tobacco Company is no more so far as Manchoukuo is concerned. The head office of the Chi Tung Tobacco Company as well as its factory are located in Mukden. It has another factory under construction in Yingkow which was expected to be in operation during 1938.

A. Lopato Sons Ltd.—Until 1913 it was a small-scale factory under Russian management. In that year it obtained from the Anglo-American Tobacco Company financial assistance to the extent of ¥8,000,000 which enabled it to effect readjustment and recover its lost strength and rise to a position of importance in the zone of the former C. E. R. The Company is also a Manchoukuo corporation organized under Manchoukuo law and is located in Harbin where it has its factory. Its capitalization in 1937 was 3,500,000 yuan.

Toa Tobacco Company.—The Company is capitalized at ¥10,000,000, of which ¥7,300,000 is paid up. With its head office in Tokyo, the Company has factories in Mukden, Dairen, Yingkow and Tientsin and marketing offices in Tientsin and Dairen. It produces 10,000,000 pieces of cigarettes a day and also a considerable amount of cut tobacco and supplies them to Manchuria and North China.

Manchu Tobacco Company.—The Company was founded in Tokyo in January, 1925 with a capital of ¥5,000,000, a quarter of which is paid up. Its Hsinking factory has been completed. There is a plan afoot for the establishment of an additional factory at Harbin.

Table 53. Tobacco Companies in Manchoukuo and Kwantung
(End of 1936)

Company	Authorized capital (¥1,000)	Rolling machines	Annual capacity		Cigarette output from July 1934 to June 1935 (million pieces)
			(million pieces)	% to total	
Chi Tung Tobacco Co.:					
Mukden factory	52,325	51	9,693	45	7,211
Liaoyang "					2,773
Harbin "					
A. Lopato Sons Ltd.	3,500	4	3,096	14	....
Kungshih Tobacco Co.	300	6	945	2	....
Toa Tobacco Co.:					
Dairen factory	11,500	5	466	2	2,928
Yingkow "		31	2,657	12	
Mukden "		15	1,399	6	
Manshu Tobacco Co.	5,000	8	1,152	5	1,500
Tayang Tobacco Co.	300	8	864	4	1,056
Tchurin Tobacco Co.	20	3	324	2	35
Liaoning Tobacco Co.	30	3	270	1	0.3
Fulai Tobacco Co.	10	2	180	1	13
Chengchi Tobacco Co.	15	2	180	1	53
Kyowa Tobacco Co.	50	2	180	1	70
Yuantung Tobacco Co.	20	2	180	1	131
Dai-Ichi Tobacco Co.	10	..	..	..	17
Nanfeng Tobacco Co.	8	1	21	..	3
Tungyang Tobacco Co.	59	..	..	..	..
Robert Tobacco Co.	..	..	..	..	0.3
Yufeng Tobacco Co.	..	..	..	..	0.1
Huafeng Tobacco Co.	..	..	..	..	0.02
Fucheng Tobacco Co.	..	..	..	..	0.02
Total	73,047	163	21,607	100	13,018

Table 54. Imports of Tobacco Classified
(000's omitted)

Year	Cigarettes		Cigars		Leaf tobacco		Prepared tobacco		Total value incl. others (Yen)
	Pieces	(Yen)	Pieces	(Yen)	Catties	(Yen)	Catties	(Yen)	
1933	591,343	1,734	382	31	25,494	9,503	56	31	11,476
1934	843,364	2,679	968	72	28,291	8,558	258	119	11,664
1935	598,473	1,934	372	41	16,072	6,067	197	87	8,327
1936	360,985	1,202	197	24	25,144	8,848	187	84	10,585
1937	456,027	1,419	200	26	21,345	7,597	122	50	9,617

Tobacco Sales Organization Planned

The organization of the existing leaf tobacco sales committee into the Manchuria Leaf Tobacco Sales Company, capitalized at ¥2,000,000 was under consideration in 1938 by the Manchoukuo Department of Industry in collaboration with the Manchuria Chamber of Commerce and Industry and agricultural associations.

The projected firm is expected to take charge of purchasing, importing and distributing of leaf tobacco, as well as arranging equipment for drying this material in compliance with the drastic revision of the five-year plan for increasing leaf tobacco production in this country.

In the first year of the five-year plan, or in 1937, leaf tobacco production amounted to 3,192 metric tons from a crop area of 2,390 chobu, showing an increase of 222 tons with 140 chobu

as against the plan. Under the revised five-year plan, tobacco production in 1938 was to be increased to 5,500 tons on an area of some 4,500 chobu. Government appropriations for tobacco production in 1938 was ¥2,500,000 as compared with ¥800,000 in 1937.

Hide and Leather Industry

This line of industry has not yet made noticeable developments in Manchuria. Cow hides are not only inferior in quality but quite limited in production. The only sign of activity shown by this industry is that about 200,000 pieces of horse hide are yearly exported to Japan. There is only one company of considerable size manufacturing hides and leather, namely, the Japanese-Manchu Hide and Leather Industrial Company. It is capitalized at ¥3,000,000 one-fourth of which is paid-up.

Table 55. Manchoukuo's Exports of Hides, Leather and Other Animal Substances
(In MY1,000)

Exports:	1933	1934	1935	1936	1937
Hides, Cow (incl. Calf), Dry or Wet, Salted or Unsalted	155	61	22	42	27
Hides, Ass, Horse and Mule	1,026	701	877	607	631
Skin, Dressed or Undressed:					
Badger	83	91	280	159	149
Dog	677	93	643	1,074	928
Goat	95	98	260	351	334
Kolinsky	501	679	948	1,771	1,301
Pony	106	135	226	299	289
Racoon	43	76	94	289	134
Total including others	3,338	2,687	4,134	5,785	5,368

References:

Table Nos.: 1 a & b, 2 c, 3 d, 4 e, 5-6 f, 7-8 d, 9 g, 10 h, 11 i, 12 j, 13 c, 14 j, 15 k, 16-17 c, 18-20 l, 21 m, 22 g, 23 c, 24 n, 25 k, 26 d, 27-29 c, 30 j, 31 l, 32-33 d, 34 l, 35-37 o, 38 j, 39 d, 40-49 p, 50 l, 51 c, 52 j, 53 d, 54-55 j.

- a—Provisional Industrial Investigation Bureau of Manchoukuo.
- b—Dairen Chamber of Commerce & Industry.
- c—S. M. R. Co.
- d—Industry Department of Manchoukuo.
- e—Toyo Cotton Co.
- f—Naigai Cotton Co.
- g—Japan-Manchou Business Association.
- h—Manchuria Hemp Dressing Co.
- i—Japan-Manchuria Flax Spinning & Weaving Co.
- j—Monthly Return of Foreign Trade of Manchoukuo.
- k—Union of Manchuria Export & Import Guilds.
- l—Kwantung Bureau.
- m—Shoko Glass Co.
- n—Manchuria Chemical Industry Co.
- o—Japan Sugar Producers' Association.
- p—Manchuria Electric Co.

CHAPTER XXII

FOREIGN TRADE

The foreign trade of Manchoukuo has increased with a phenomenal stride as is characteristic of countries newly opened to development. In 1937 exports and imports combined amounted to 1,532.7 million yuan. The trend of the past few years may be observed from the following table:

Table 1. Foreign Trade of Manchuria
(MY1,000)

	Export	Import	Total	Balance
1926	566,770	421,992	988,768	144,778
1927	626,002	409,245	1,035,248	216,757
1928	668,678	459,946	1,128,624	208,731
1929	659,682	502,948	1,162,630	156,734
1930	608,384	462,733	1,071,157	145,611
1931	739,272	341,600	1,080,871	397,672
1932	618,157	337,673	955,830	280,484
1933	448,478	515,832	964,310	- 67,355
1934	448,427	539,562	1,041,989	-145,136
1935	421,078	604,149	1,025,227	-183,070
1936	602,759	691,889	1,294,648	- 89,130
1937	645,298	887,412	1,532,709	-242,114
1937 (1st half)	358,272	407,765	766,037	- 49,493
1938 (1st half)	404,022	557,576	961,598	-153,554

Manchoukuo's exports are overwhelmingly agricultural in nature. Soya beans, bean oil and bean-cake have represented about a half of the country's total exports in recent years. In 1937 these products accounted for some 313.7 million yuan of a total export valued at 645.3 million yuan.

The country's imports are mostly manufac-

ured articles. Such items as cotton goods, gunny bags for grain packing, iron and other metal goods as well as certain provisions loom large in her foreign purchases.

The significant growth of foreign trade to its present stature may be ascribed largely to heavy immigration and to extensive capital investments.

Table 2. Value Percentage of Exports & Imports of Merchandise
By Countries and by Categories

To:	Year	(A) Exports				Grand Total of Exports
		Foodstuff Beverage, Prepared Tobacco	Raw Materials	Raw Materials for further Manufacturing	Wholly or Mainly Manufactured Goods	
Japan	1935	46.13	39.36	57.36	46.80	45.65
	1936	34.49	37.59	60.44	46.31	43.66
	1937	.....	.....	.....	.....	42.78
Korea	1935	31.05	6.78	4.23	10.72	8.04
	1936	37.11	5.97	4.11	7.31	8.79
	1937	.....	.....	.....	.....	6.88
China	1935	14.01	8.90	13.11	38.16	11.27
	1936	25.16	8.70	11.90	43.15	12.11
	1937	.....	.....	.....	.....	17.61
Great Britain	1935	0.28	8.68	3.33	0.01	6.17
	1936	0.33	7.42	2.61	0	5.20
	1937	.....	.....	.....	.....	1.44
Germany	1935	3.68	10.83	5.44	0	8.35
	1936	1.23	12.79	6.25	.....	9.49
	1937	.....	.....	.....	.....	9.15

	Year	Foodstuff Beverage, Prepared Tobacco	Raw Materials	Raw Materials for further Manufacturing	Wholly or Mainly Manufactured Goods	Grand Total of Exports
Italy	1935	0.04	1.65	0.01	.....	0.99
	1936	0.06	.....	0.01	.....	0.07
	1937	.....	.....	.....	.....	0.46
U. S. A.	1935	1.11	3.22	6.46	0.90	3.93
	1936	0.38	1.71	7.42	0.15	3.07
	1937	.....	.....	.....	.....	2.27

(B) Imports

From:	Year	Foodstuff Beverage, Prepared Tobacco	Raw Materials	Raw Materials for further Manufacturing	Wholly or Mainly Manufactured Goods	Grand Total of Imports
Japan	1935	59.41	33.76	65.20	84.43	71.88
	1936	57.36	34.04	73.25	85.73	73.33
	1937	.....	.....	.....	.....	70.66
Korea	1935	7.45	6.75	1.89	2.09	3.69
	1936	7.81	5.01	3.26	2.61	3.95
	1937	.....	.....	.....	.....	4.39
China	1935	6.20	14.24	5.12	3.50	5.32
	1936	12.86	17.69	3.76	3.58	6.89
	1937	.....	.....	.....	.....	4.43
Hongkong	1935	1.08	0.96	0.64	0.11	0.19
	1936	2.64	1.13	0.76	0.07	0.72
	1937	.....	.....	.....	.....	0.49
Britain India	1935	1.71	20.35	0.30	3.26	3.95
	1936	1.26	21.62	0.30	2.41	4.08
	1937	.....	.....	.....	.....	5.14
Great Britain	1935	1.49	0.34	3.14	1.38	1.57
	1936	1.10	0.20	2.23	0.99	1.07
	1937	.....	.....	.....	.....	1.25
Germany	1935	0.12	0.09	7.76	2.20	2.43
	1936	0.08	0.22	4.67	2.13	1.88
	1937	.....	.....	.....	.....	1.94
Italy	1935	0.03	2.19	0.02	0.04	0.23
	1936	0.04	1.86	0.04	0.02	0.23
	1937	.....	.....	.....	.....	0.11
U. S. A.	1935	0.72	16.28	1.67	1.94	4.13
	1936	0.69	13.66	6.29	1.67	3.43
	1937	.....	.....	.....	.....	6.50
Australia	1935	16.51	0.38	0	0	3.35
	1936	7.36	0.28	0.03	0	1.28
	1937	.....	.....	.....	.....	.....

Trade by Countries.— Certain significant changes in the relative apportionment of Manchoukuo's trade with foreign countries are noticeable in the figures for recent years. The most prominent feature is the growing importance of Japan. In 1937 imports from Japan aggregated 627.2 million yuan representing 70 percent of total imports, as contrasted with 75 per cent in 1931. Exports to Japan in 1937 amounted to 277 million yuan, representing 42 per cent of total exports, as contrasted with 48 per cent in 1931. Japan's share becomes larger if the exports and imports

of Chosen are included.

The next largest customer of Manchoukuo was China, the foreign trade with which country amounted to 153 million yuan in 1937, consisting of 113.7 million yuan in exports and 39.3 million yuan in imports.

Germany advanced from fourth to third place as Manchoukuo's largest customer in 1937 with total transactions amounting to 76.3 million yuan, consisting of 59 million yuan in exports and 17.3 million yuan in imports.

She was followed by the United States in fourth place with 76.2 million yuan.

Table 3. Value of Staple Exports
(MY1,000)

	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Bristle & Animal Hair ...	2,740	3,967	6,055	8,664	4,171	4,964
Hides & Leather	763	900	654	733	304	717
Fur	1,923	3,234	5,132	4,635	3,486	4,249
Beans & Peas	170,342	143,109	231,313	238,618	130,876	135,366
Buckwheat	4,215	2,494	2,373	2,564	1,741	1,883
Kaoliang	7,311	3,993	11,726	9,843	3,704	13,634
Maize	5,016	1,470	6,995	8,526	2,384	11,910
Millet	19,940	9,050	18,318	14,197	9,699	11,789
Bean Cake	51,509	51,370	53,127	62,356	40,713	47,666
Ginseng	1,139	939	940	918	761	344
Bean Oil	16,262	20,132	21,383	25,343	17,310	9,863
Paraffin Wax	741	1,206	2,066	1,786	647	949
Groundnuts	14,129	14,141	16,110	16,370	11,630	7,814
Castor Seeds	2,795	3,036	4,383	1,050	1,793	1,284
Hemp Seed	4,410	5,649	3,597	2,269	1,469	2,042
Perilla Seed	4,153	7,533	13,818	7,885	5,635	5,367
Sesamum Seed	5,865	3,122	832	2,030	376	1,182
Sweepings (cereals)	8,668	3,220	1,961	3,209	1,243	3,091
Coal	41,956	40,474	35,181	35,610	19,007	14,068
Mineral Oil	964	1,279	2,435	1,546	700	....
Wood & Timber	3,738	3,746	3,083	3,158	1,843	1,905
Raw Silk, Wild	7,409	7,311	6,125	8,400	6,077	3,013
Wool	756	1,469	2,342	3,218	357	1,045
Cotton Yarn	6,136	5,624	6,189	4,468	2,124	665
Pig Iron & Kentledge Iron	10,380	10,329	7,650	4,169	3,043	....
Sulphate of Ammonia ...	1,718	6,051	11,424	9,676	4,785	....
Salt	5,438	4,663	5,073	7,236	2,392	....

Table 4. Value of Staple Imports
(MY1,000)

	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Cotton Piece Goods, Grey	17,154	24,228	32,048	42,772	20,575	25,433
" White or Dyed	27,511	25,649	40,769	44,436	22,200	23,374
" Printed	10,948	7,483	11,789	13,935	8,653	8,983
Raw Cotton	12,284	9,407	18,601	32,202	16,476	18,410
Cotton Yarn	12,533	7,938	7,699	10,740	4,304	5,035
Gunny Bags	16,134	14,641	14,025	19,274	6,489	8,855
Wool & Manufacturers thereof	17,247	18,911	24,721	35,901	13,866	9,431
Rayon Yarn	10,824	8,051	15,801	2,130	1,513	379
Silk & Rayon Fabric (incl. mixture)	12,396	21,503	38,160	38,331	21,558	1,509
Metals & Ores	69,361	63,785	50,771	98,968	38,183	110,617
Machineries (incl. scientific apparatus, vehicles, etc.)	85,224	107,313	126,645	166,321	73,209	98,375
Aquatic Products	8,238	8,553	12,005	20,585	6,977	7,615
Tea	3,023	3,136	3,727	4,120	1,611	1,999
Rice & Paddy	7,476	11,567	12,592	8,754	6,182	2,092
Wheat Flour	57,058	53,989	27,116	13,828	7,622	14,023
Fruits & Vegetables	9,816	11,779	13,655	13,852	7,499	9,598
Sugar	11,566	13,643	30,918	22,427	10,312	18,581
Wines, Beer, Spirits, etc.	6,980	7,965	8,368	9,969	4,006	3,958
Cigarettes	2,678	1,933	1,202	1,419	872	143
Leaf Tobacco	8,558	6,067	8,848	7,597	4,710	3,069
Soda Ash	1,608	1,601	1,633	1,447	843	35
Dyes, Pigments, Paints & Varnishes	9,865	6,745	7,257	11,598	6,142	5,194
Kerosene	11,621	2,228	1,740	6,707	2,735	....
Lubricating Oil	3,202	2,850	3,210	4,513	1,904	....
Paper	12,245	13,074	16,726	25,718	12,070	11,083
Timber	17,499	13,509	10,565	13,127	4,662	9,147
Cement	7,901	3,543	3,437	1,068	503	618

Foreign Trade in 1937

Foreign trade in 1937 attained the largest combined total of exports and imports record since the establishment of the State, the total amounting to MY1,532,709,352. Exports increased by

MY42,539,000 or 7.1%, whilst imports expanded by MY195,582,000 or 28.3%, resulting in a larger import excess than in 1936. The construction programme of the Government and private interests, the pace of which was accelerated by the Five Year Plan, largely accounted for the heavy increase in imports.

Japan occupied the leading position both as a buyer of Manchurian products and as a supplier of manufactures. In imports particularly, the share of Japan including Chosen was 75.1%, the remainder being divided among other European countries and the United States. In exports, however, Japan's position was less overwhelming, her share, including Chosen, constituting only 49.8% of the total.

China ranked second, but exports as well as imports reveal a declining tendency in contrast to the general increase in trade with other countries. Germany and the United States ranked third and fourth respectively. Germany imported nearly 2½ times more than her total exports to Manchoukuo, whilst the United States held a reverse position. Imports from the United States consisted mainly of construction materials, which more than doubled in 1937. Exports to Great Britain decreased to almost one third of the value of 1936, whilst the Netherlands greatly increased her share compared with the preceding year. In imports there was a marked increase in trade with Great Britain.

Principal Exports and Imports

Exports.—Soya beans constituted the most important export article, representing 25.0% of the total export value, and 50.5% if other varieties of beans and derivatives are included. The most important customer for beans was Japan, followed by Egypt and Germany. In bean cakes and oil, Japanese imports concentrated on cake whilst European countries such as Germany, the Netherlands and Great Britain mostly bought oil.

Other oil-yielding materials—ground nuts and seed—were also important. Exports of coal and iron showed a heavy increase, but shipments were confined to Japan and Korea.

Imports.—Imports were conspicuously less one-sided, consisting of a multitude of articles among which textile goods were the most important. Japanese goods practically monopolized the market for cotton, silk, and woollen piece-goods, cotton and rayon yarn, etc. The heavy increase of raw cotton imports must be considered a sign of the growing industrialization of Manchoukuo.

There was a heavy increase in the import of construction materials. The import of iron and steel, machinery and tools, electrical apparatus, etc. almost doubled during 1937. Japan, the United States, Germany, Great Britain, Belgium and Sweden were the most important suppliers.

Table 5. Volume of Principal Articles Exported & Imported
(a) Exports

Articles	Unit	1934	1935	1936	1937
Bristles	piculs	28,121	13,333	16,423	14,381
Hair, of other Animals .....	"	....	....	38,312	38,287
Hides and Leather .....	"	....	....	15,306	15,809
Soya Beans	"	41,308,789	29,203,888	32,539,781	32,642,767
Other Beans	"	2,161,663	2,547,852	2,369,259	1,862,123
Bran, Wheat .....	"	....	....	1,436,438	2,290,768
Buckwheat	"	855,946	444,760	473,773	491,958
Kaoliang	"	3,333,038	1,186,274	3,075,941	2,098,383
Maize	"	2,056,292	549,901	1,964,241	1,850,380
Millet	"	4,006,123	1,742,303	2,660,836	2,105,922
Wheat .....	"	....	....	253,867	214,403
Bean cake	"	20,380,045	16,925,382	14,026,666	13,367,746
Perilla cake .....	"	....	....	452,997	600,200
Ginseng	catties	435,853	444,194	451,717	359,284
Bean oil	piculs	1,608,975	1,479,085	1,109,670	1,160,912
Perilla oil .....	"	....	....	324,120	319,326
Ground nuts	"	1,562,933	1,717,097	1,605,414	1,536,442
Castor seed .....	"	....	....	331,572	458,185
Cotton seed .....	"	....	....	250,548	218,484
Hemp seed	"	1,078,279	1,512,237	769,672	397,436
Perilla seed	"	533,389	1,056,827	1,913,805	1,056,528
Sesamum seed	"	582,877	282,194	64,336	137,964
Sweepings	"	4,275,173	1,552,410	884,162	1,293,645
Coal	Tons	4,302,722	4,182,276	3,737,705	3,824,626
Shale Oil	"	39,934	52,916	93,804	61,323
Raw silk, wild	catties	2,461,066	2,271,014	1,654,241	2,471,818
Wools, sheep's	"	2,638,712	5,104,280	5,374,742	4,769,547

(Exports)					
Articles	Unit	1934	1935	1936	1937
Pig iron, and Kentledge	piculs	7,281,597	7,152,822	5,104,287	4,168,530
Magnesite	"	.....	.....	1,823,384	2,751,789
Soapstone and talc	"	.....	.....	1,373,996	1,837,650
Sulphate of Ammonium	"	475,099	1,642,336	2,927,960	2,582,783
Salt	"	5,766,009	4,610,006	6,745,107	9,971,809

(b) Imports					
Articles	Unit	1934	1935	1936	1937
Raw Cotton	piculs	281,007	203,813	383,761	615,503
Cotton Yarn	catties	16,555,701	9,374,718	8,893,503	10,671,562
Raw Jute	"	.....	.....	19,780,890	22,217,705
Gunny bags	piculs	932,977	901,342	814,793	1,037,746
Woollen Yarn and Cord	catties	.....	.....	1,256,456	4,183,007
Artificial silk, floss	"	6,626,320	5,546,233	11,905,976	2,355,058
Ores	M. tons	.....	.....	119,902	154,456
Aluminium	catties	.....	.....	935,365	1,571,189
Copper	"	9,330,800	9,352,843	4,907,734	9,102,262
Lead	piculs	.....	.....	70,203	77,943
Tea	catties	7,798,684	7,155,077	8,103,220	8,672,615
Rice and paddy	piculs	1,224,583	1,326,908	1,770,117	1,196,941
Wheat flour	"	8,648,710	7,695,656	3,480,897	1,297,093
Sugar	"	1,548,497	1,776,721	3,676,968	2,780,117
Leaf Tobacco	catties	28,290,663	16,071,611	25,143,997	21,344,702
Gasoline, Naphtha, etc.	Am. Gal.	19,565,248	9,013,608	3,890,572	17,567,458
Kerosene oil	"	24,754,697	4,047,013	3,746,475	22,853,681
Lubricating oil	"	4,839,791	5,518,057	5,326,311	5,343,104
Crude oil, mineral	Tons	.....	.....	118,349	155,243

Table 6. Manchoukuo's Foreign Trade Classified by Countries (MY1,000)

		1933	1934	1935	1936	1937	1938
						(1st half)	(1st half)
Japan	Exp.	172,950	172,262	183,523	237,509	277,088	154,063
	Imp.	313,696	383,296	434,229	507,324	627,230	289,002
Korea	Exp.	30,358	46,413	33,769	43,395	44,423	27,910
	Imp.	26,066	25,305	22,446	27,306	39,040	17,503
China	Exp.	55,258	65,694	65,353	128,603	113,753	63,833
	Imp.	79,821	57,595	31,993	47,685	39,324	24,496
U.S.S.R.	Exp.	12,918	8,423	4,662	1,585	146	76
	Imp.	7,568	4,876	1,168	261	701	346
Hongkong	Exp.	6,214	6,849	7,528	8,732	8,417	4,724
	Imp.	8,006	3,597	2,759	4,987	4,411	2,361
British India	Exp.	1,080	646	2,701	1,691	132	81
	Imp.	14,703	23,944	23,821	28,224	45,624	20,459
D.E.I.	Exp.	4,045	1,710	701	1,478	1,265	788
	Imp.	3,324	6,695	5,062	6,859	8,948	4,620
Great Britain	Exp.	8,793	16,218	24,221	27,521	9,322	5,259
	Imp.	7,190	9,316	9,482	7,419	11,128	4,874
France	Exp.	2,546	2,921	3,570	4,837	1,268	958
	Imp.	779	565	463	789	3,367	1,184
Germany	Exp.	66,357	53,310	32,799	50,278	59,052	31,300
	Imp.	10,577	12,486	14,742	13,025	17,278	8,327
Belgium	Exp.	281	1,190	1,148	953	1,273	634
	Imp.	1,291	704	1,511	1,019	3,993	1,489
Netherlands	Exp.	5,910	8,073	10,075	7,072	16,570	11,601
	Imp.	427	388	815	631	1,527	522
Italy	Exp.	1,847	4,303	3,864	333	2,644	1,847
	Imp.	459	702	1,357	1,624	1,064	297
U.S.A.	Exp.	7,536	5,966	15,596	16,353	18,674	9,508
	Imp.	28,962	35,227	24,936	23,735	57,523	20,596
Total incl. Other	Exp.	423,789	448,427	421,078	602,759	645,298	353,272
	Imp.	515,687	593,562	604,149	691,830	887,412	407,765

Trend in 1938

As regards the probable trend of trade in 1938, the recognition of the State by Germany and Italy should make itself felt in trade statistics. The commercial treaty between Manchou-

kuo and Germany which was signed on April 30, 1936, was prolonged until May 31, 1940. According to the principal clause of the treaty, Manchoukuo is bound to purchase one-fourth of the value of her sales to Germany. Actually, in the second year beginning June, 1937, Manchoukuo imports from Germany reached MY19,800,000 until the end of 1937 whilst Germany purchased only MY37,000,000 during the same period. The credit agreement between the Central Bank of Manchou and the Otto Wolff Concern is expected to foster German trade in

Manchoukuo. Foreign Trade Through Dairen.—Foreign trade through Dairen is the largest of any other port in Manchuria. About 90 per cent of the entire foreign trade of the country is done through this flourishing port. In 1937 the total value of foreign trade effected through Dairen amounted to MY1,125,846,000, consisting of MY484,849,000 in exports and MY640,996,000 in imports. The largest item of export through Dairen are soya beans.

Table 7. Commerce By Principal Customs Districts

		1934	1935	1936	1937	1938
					(1st half)	(1st half)
Dairen	Exp.	335,182	315,371	422,699	484,850	262,544
	Imp.	449,246	464,375	526,201	640,996	297,382
	Total	784,428	779,746	968,900	1,125,846	559,926
	%	75.3	76.3	74.7	73.4	73.1
Antung	Exp.	44,735	35,898	42,163	38,296	23,280
	Imp.	77,372	75,685	93,333	53,885	26,394
	Total	122,107	111,583	135,496	92,180	49,674
	%	11.7	10.9	10.4	6.1	6.5
Yingkow	Exp.	36,316	41,606	52,701	36,371	16,655
	Imp.	29,049	25,174	26,347	49,666	38,097
	Total	65,365	66,780	79,048	86,037	54,752
	%	6.3	6.5	6.1	5.6	7.2
Shanhaikwan	Exp.	8,620	8,357	19,039	13,254	6,829
	Imp.	8,105	5,247	11,572	13,902	7,299
	Total	16,725	13,604	30,611	32,156	14,128
	%	1.3	1.3	2.4	2.1	1.8
Harbin	Exp.	8,903	3,005	951	537	320
	Imp.	4,573	4,960	4,320	23,044	14,873
	Total	13,476	7,911	5,271	23,582	15,193
	%	0.6	0.8	0.4	1.5	1.9
Tumen	Exp.	—	15,143	43,007	66,945	47,124
	Imp.	—	27,496	28,455	47,978	22,841
	Total	—	42,639	71,462	114,923	69,965
	%	—	4.2	5.5	7.5	9.2

Table 8. Manchoukuo's Leading Customers By Principal Commodities

(In MY1,000)

(A) Exports

	1934	1935	1936	1937
Japan (excl. Korea):				
Soya Beans	31,298	38,992	62,912	78,939
Bean Cakes	36,875	34,712	41,391	31,352
Coal	29,361	28,860	26,009	26,363
Perilla Oil	3,152	6,205	12,812	7,648
Sulphate of Ammonium	853	4,827	7,786	6,216
Kaoliang	3,242	1,956	5,507	6,627
Pig Iron	9,596	9,489	6,723	5,692
Bristle	459	810	1,192	1,951
Salt	4,746	4,284	4,553	6,645
Total including others	172,262	183,523	237,509	277,088
China:				
Soya Beans	9,031	12,049	18,816	6,313
Bean Cakes	7,474	9,946	7,341	7,713
Coal	3,777	2,636	2,350	1,786
Bean Oil	4,792	2,208	3,110	2,411

(Exports. Unit: MY1,000)	1934	1935	1936	1937
Millet	1,068	282	634	1,348
Perilla Oil	823	1,150	864	.....
Kaoliang	3,839	1,887	6,119	3,097
Maize	1,950	907	5,693	4,122
Total including others	65,694	65,353	128,603	113,753
Great Britain:				
Soya Beans	13,714	18,215	21,411	4,143
Bean Oil	454	.....	3,551	1,303
Coal	924	1,103	870	.....
Bristle	239	234	234	337
Total including others	16,218	24,221	27,521	9,322
Germany:				
Bristle	68	99	254	903
Soya Beans	36,258	22,169	34,385	42,511
Buckwheat	3,151	1,107	677	1,197
Bean Cakes	386	333	320	301
Bean Oil	7,703	5,935	8,123	6,731
Hemp seeds	1,950	298	161	573
Total including others	53,310	32,799	50,278	59,052
Netherlands:				
Soya Beans	313	717	2,326	3,000
Buckwheat	428	286	101	369
Bean Oil	1,754	.....	1,235	9,253
Groundnuts	3,991	5,937	2,834	2,484
Coal	334	267	311	324
Total including others	8,073	10,075	7,072	16,570
Italy:				
Soya Beans	1,515	1,350	9	1,090
Groundnuts	1,094	1,184	343	1,386
Sesamum Seeds	1,405	947	.....	.....
Total including others	4,303	3,864	383	2,644
U. S. A.:				
Bristle	788	1,177	1,817	2,368
Skins	563	1,132	1,531	1,557
Bean Cakes	1,256	1,945	1,610	2,896
Hemp Seeds	435	3,387	1,798	17
Total including others	5,966	15,596	16,353	18,674
Grand Total	448,427	421,078	602,759	645,298

(B) Imports
(In MY1,000)

Japan (excl. Korea):	1934	1935	1936	1937
Cotton Piece Goods, Gray	14,632	22,081	28,580	34,119
" " White, or Dyed	24,937	25,113	40,128	43,561
" " Printed	10,541	7,416	11,679	13,876
" " Miscellaneous	10,978	2,911	2,820	3,451
Cotton Yarn	5,055	5,357	6,986	9,354
Gunny Bags	4,947	3,617	4,085	3,601
Woollen Piece Goods	7,693	9,285	12,664	18,643
Silk Piece Goods	9,471	19,261	35,055	29,053
Iron and Steel	46,792	42,164	34,492	55,397
Machinery and Tools	21,467	24,561	30,682	65,901
Vehicles and Vessels	25,700	35,923	35,154	38,201
Tea	859	1,218	1,127	1,708
Wheat Flour	27,127	32,766	14,830	12,040
Sugar	7,612	9,176	19,240	10,604
Paper	9,193	10,589	13,335	20,498
Timber and Wood	7,635	6,515	5,643	7,832
Cement	5,389	2,929	3,221	457
Cotton Thread	458	994	1,735	2,082
Clothing and parts	8,895	10,126	12,305	16,497
Artificial Silk Floss and Yarn	10,721	6,992	14,402	1,514
Copper	4,180	4,274	2,531	5,230
Electrical Requisites	10,985	14,960	16,037	25,939
Aquatic Products	5,045	6,189	8,262	14,422

(Imports. Unit: MY1,000)	1934	1935	1936	1937
Foodstuffs, etc. ....	.....	1,834	2,226	3,799
Wines, Beer, etc.	5,743	7,014	7,088	8,537
Chemicals and Pharmaceuticals	6,739	8,664	10,405	14,511
Dyes, Pigments, Paints, etc.	2,568	3,413	4,102	5,746
Total including others	383,296	434,229	507,324	627,230
China:				
Cotton Piece Goods, Gray	3,633	914	987	663
" " Dyed	553	279	463	250
" " Miscellaneous	969	34	35	17
Raw Cotton	507	1,098	3,431	3,630
Cotton Yarn	7,055	2,538	673	533
Machinery and Tools	697	795	290	386
Tea	2,084	1,832	2,463	2,221
Rice and Paddy	1,393	663	3,562	3,142
Wheat Flour	6,575	572	3,291	235
Leaf Tobacco	4,395	3,250	5,072	3,566
Paper	2,075	1,220	1,789	1,629
Fruits .....	.....	1,281	1,615	1,252
Vegetables .....	.....	996	1,164	1,082
Hides and Leather .....	.....	623	1,521	1,201
Total including others	57,595	31,993	47,685	39,324
British India:				
Raw Cotton	10,263	8,046	13,862	22,340
Gunny Bags	9,566	10,537	9,496	15,314
Rice and Paddy	1,534	1,994	1,318	1,955
Total including others	23,944	23,821	28,224	45,624
Great Britain:				
Woollen Piece Goods	987	832	761	1,089
Machinery and Tools	1,763	2,275	2,130	3,529
Iron and Steel	1,045	1,078	154	961
Foodstuffs, .....	.....	320	250	53
Wines, Beer etc.	655	545	535	571
Soda Ash	251	469	526	884
Chemical and Pharmaceuticals .....	.....	1,180	634	727
Dyes, Pigments, etc.	614	458	475	658
Total including others	9,316	9,482	7,419	11,128
Germany:				
Woollen Piece Goods	165	233	126	842
Iron and Steel	5,609	5,203	1,558	2,153
Machine and Tools	1,991	2,922	3,589	2,562
Vehicles and Vessels	305	233	637	890
Electric Requisites	71	106	81	149
Chemicals and Pharmaceuticals	581	549	787	1,754
Dyes, Pigments, etc.	1,190	1,751	1,622	3,669
Photographic Apparatus	513	486	1,163	2,404
Total including others	12,486	14,742	13,025	17,278
U. S. A.				
Raw Cotton	1,038	204	837	4,962
Iron and Steel	2,078	1,243	1,001	9,589
Machinery and Tools	1,130	1,700	1,146	3,855
Vehicles and Vessels	3,295	2,618	2,875	6,888
Leaf Tobacco	3,549	1,841	3,113	3,202
Crude Oil .....	.....	.....	4,619	7,343
Gasoline, Benzine, etc.	6,728	2,909	914	2,923
Kerosene Oil	5,881	1,626	95	3,520
Timber and Wood	4,987	3,283	1,887	2,148
Dyes, Pigments, etc.	445	602	431	732
Lubricating Oil	1,074	1,041	1,541	1,706
Skins (Furs)	494	837	606	880
Photo. Apparatus	212	261	410	855
Total including others	35,227	24,936	23,735	57,523
Total Imports	593,562	604,149	691,830	887,412

Table 9. Principal Exports By Countries
(Value in M¥1,000)

Articles and Destinat	1934	1935	1936	1937	1937 (1st half)	1936 (1st half)
Bristles	2,146	2,797	4,404	6,541	2,987	3,524
Japan	459	810	1,192	1,951	1,087	661
Korea	—	2	33	—	—	1
China	530	329	779	606	499	664
Hongkong	20	36	3	4	4	—
Great Britain	239	234	234	337	153	231
Germany	68	99	254	903	517	393
U. S. A.	788	1,177	1,817	2,368	556	1,471
Hides & Leather	763	900	654	733	376	717
Japan	736	889	640	643	297	714
Korea	21	4	3	8	4	1
China	7	6	8	14	12	1
Skins	1,924	3,234	5,132	4,635	3,414	4,249
Japan	1,036	1,633	3,104	2,172	1,824	1,096
Korea	29	28	20	43	5	—
China	169	224	320	301	255	147
Great Britain	101	167	120	289	266	55
U. S. A.	563	1,132	1,531	1,557	1,009	2,207
Soya Beans	160,349	130,053	216,475	226,076	124,038	128,161
Japan	31,298	38,992	62,912	78,939	48,738	46,711
Korea	8,353	4,527	9,413	7,715	6,179	8,956
China	9,031	12,049	18,816	6,313	4,318	4,441
Hongkong	1,106	1,447	1,740	1,197	488	962
D. E. I.	1,314	328	162	24	11	—
Great Britain	13,714	18,215	21,411	4,143	1,764	1,741
France	1,072	1,027	3,524	217	217	110
Germany	36,258	22,169	2,326	3,000	1,185	17,168
Netherlands	313	717	2,326	3,000	1,143	955
Italy	1,515	1,350	9	1,090	589	1,492
Egypt	46,179	16,284	50,558	76,119	36,373	49,296
Other Beans	9,994	13,056	14,838	12,542	6,838	7,205
Japan	6,415	8,992	10,808	9,130	5,081	5,259
Korea	1,243	1,219	1,910	1,625	1,219	305
China	1,320	1,543	1,325	992	218	1,055
Hongkong	358	505	516	630	244	373
D. E. I.	55	120	63	67	42	14
Buckwheat	4,251	2,494	2,373	2,564	1,741	1,883
Japan	20	171	402	86	56	—
Korea	320	612	965	788	439	386
China	5	4	14	36	5	37
Great Britain	28	18	6	—	—	1,090
Germany	3,151	1,107	677	1,197	897	76
Belgium	288	281	190	80	60	284
Netherlands	428	286	101	369	285	—
Italy	7	—	—	—	—	—
Kaoliang	7,311	3,993	11,726	9,843	3,704	13,634
Japan	3,242	1,956	5,507	6,627	2,745	3,866
Korea	106	140	100	115	28	8
China	3,839	1,887	6,119	3,097	931	9,740
Maize	5,016	1,470	6,995	8,526	2,384	11,910
Japan	2,315	342	612	3,991	592	9,325
Korea	588	172	510	406	130	83
China	1,950	907	5,693	3,122	1,655	2,487
U. S. A.	62	32	180	7	7	—
Millet	19,940	9,050	18,318	14,197	9,699	11,789
Japan	1,123	374	439	355	190	147
Korea	17,484	8,065	17,109	12,432	8,819	7,692
China	1,063	282	634	1,348	655	3,949
Great Britain	23	—	—	8	—	—
France	3	—	—	—	—	—
Germany	131	15	33	—	—	—

Articles and Destinations	1934	1935	1936	1937	1937 (1st half)	1936 (1st half)
Italy	20	4	7	—	—	—
U. S. A.	87	300	22	12	12	—
Bean Cake	51,509	54,370	53,127	62,336	40,713	47,666
Japan	36,875	34,712	41,391	48,659	31,352	43,904
Korea	4,501	3,364	1,829	1,634	1,225	1,880
China	7,474	9,946	7,341	7,713	5,120	956
Great Britain	39	98	5	—	—	—
Germany	386	333	320	301	244	—
Belgium	64	20	78	—	—	—
Netherlands	183	30	13	59	59	150
Italy	25	—	—	—	—	—
U. S. A.	1,256	1,945	1,610	2,896	2,019	515
Ginseng	1,139	939	940	918	761	344
Japan	3	1	3	3	2	2
Korea	15	36	47	19	12	9
China	516	498	469	533	522	41
Hongkong	606	403	421	363	224	289
Bean Oil	16,262	20,132	21,383	25,343	17,310	9,863
Japan	293	116	412	196	101	28
Korea	8	62	18	23	12	8
China	4,792	2,208	3,110	846	451	1,861
Hongkong	316	—	3,291	2,411	1,490	25
D. E. I.	—	2,052	—	—	—	—
Great Britain	454	—	3,551	1,303	1,109	51
France	13	3,584	—	—	—	—
Germany	7,703	5,935	8,183	6,731	4,183	3,589
Netherlands	1,754	—	1,235	9,253	7,386	3,625
Italy	8	2,580	—	—	—	—
U. S. A.	82	1,370	860	2,197	1,452	108
Paraffin Wax	741	1,206	2,066	1,785	647	949
Japan	741	1,205	2,041	1,777	645	910
Groundnuts	14,129	15,141	16,110	16,370	11,630	7,814
Japan	670	690	1,221	2,016	1,016	3,577
Korea	19	4	1	6	4	—
China	16	16	22	15	5	14
Hongkong	1,115	41	782	1,220	922	556
Great Britain	261	528	757	503	293	97
France	1,205	1,733	556	316	230	156
Germany	2,606	2,188	5,335	2,849	2,077	747
Belgium	473	32	166	298	26	20
Netherlands	3,991	5,937	2,834	2,484	1,722	785
Italy	1,094	1,184	353	1,386	1,121	79
U. S. A.	227	207	65	28	3	56
Hemp Seed	4,410	5,649	3,597	2,269	1,469	2,042
Japan	686	807	698	595	366	545
Korea	248	362	18	5	4	—
China	1	2	2	1	1	3
Great Britain	85	37	30	67	26	—
France	578	437	573	542	361	577
Germany	1,950	298	161	573	378	141
Belgium	118	145	59	117	80	50
Netherlands	95	47	66	112	71	98
Italy	1,094	1,184	—	—	—	—
U. S. A.	435	3,387	1,798	17	17	545
Perrilla Seed	4,153	7,533	13,818	7,885	5,635	5,367
Japan	3,152	6,205	12,312	7,648	5,402	5,326
Korea	823	1,150	864	48	48	—
China	2	10	200	88	83	7
U. S. A.	175	166	224	12	12	—
Sesamum Seed	5,865	3,122	832	2,030	376	1,182
Japan	2,523	717	380	1,442	139	773
Korea	1,259	1,031	434	555	223	408
China	91	36	18	14	13	—
Germany	118	94	—	—	—	—
Belgium	103	17	—	—	—	—

(Exports. Unit: MY1,000)	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Articles and Destinations						
Netherlands	177	51	—	—	—	—
Italy	1,405	947	—	—	—	—
U. S. A.	39	129	—	—	—	—
Sweeping (Cereals)	8,668	3,220	1,961	3,209	1,243	3,091
Japan	8,582	3,131	1,827	3,020	1,140	2,916
Korea	84	79	134	178	92	174
Coal & Briquettes	41,956	40,474	35,181	35,610	19,007	14,068
Japan	29,361	28,860	26,009	26,363	14,142	10,516
Korea	5,299	5,713	5,019	5,417	2,501	2,721
China	3,777	2,636	2,350	1,786	1,213	420
Hongkong	1,371	1,376	535	769	587	24
Great Britain	924	1,103	870	848	345	270
Germany	22	23	12	21	13	6
Netherlands	334	267	311	324	169	29
Shale Oil	964	1,279	2,435	1,506	699	—
Japan	964	1,279	2,345	1,505	699	—
Timber & Wood	3,876	3,847	2,980	3,118	1,836	1,905
Japan	56	80	193	283	123	535
Korea	1,526	1,862	1,857	2,052	1,291	625
China	2,271	1,896	927	772	421	744
Raw Silk, Wild	7,409	7,279	6,118	8,386	6,077	3,013
Japan	6,675	6,279	4,366	6,802	4,885	2,994
China	734	999	1,751	1,584	1,192	19
Wool, Sheep's	756	1,447	1,925	2,564	245	1,045
Japan	26	8	155	380	44	625
Korea	—	—	—	1	1	12
China	581	730	1,143	716	85	49
Germany	1	—	—	—	—	—
U. S. A.	148	706	581	1,176	109	358
Cotton Yarn	6,136	5,624	6,189	4,468	2,124	665
Japan	5,105	2,337	3,088	3,659	1,878	592
Korea	387	279	246	33	33	54
British India	641	2,624	1,447	53	26	—
Iron, Pigs & Kentledge ..	10,380	10,329	7,650	6,222	3,043	—
Japan	9,596	9,487	6,723	5,692	2,682	—
Korea	142	176	381	216	120	—
China	489	632	517	310	237	—
Hongkong	18	16	7	4	4	—
D. E. I.	4	2	4	—	—	—
Germany	58	—	—	—	—	—
Netherlands	28	6	—	—	—	—
Sulphate of Ammonium ..	1,718	6,051	11,424	9,676	4,785	—
Japan	854	4,827	7,786	6,216	2,730	—
Korea	144	380	2,155	2,476	1,325	—
China	184	302	580	482	349	—
Hongkong	298	282	317	299	221	—
D. E. I.	101	58	351	153	133	—
Salt	5,438	4,663	5,073	7,236	2,392	2,773
Japan	4,746	4,284	4,553	6,645	2,386	2,609
Korea	691	188	343	588	6	80
Bran, Wheat	220	835	3,394	5,482	2,901	3,787
Japan	67	625	3,228	5,232	2,802	3,779
Korea	153	211	129	37	19	8
Wheat	7	2,083	1,555	1,471	697	2,058
Japan	6	2,059	1,442	1,417	644	2,025
Korea	—	17	113	50	50	32
Perilla Oil	597	2,840	6,764	9,315	5,669	2,550
Japan	—	—	99	1	—	—
China	4	3	42	78	41	3
Great Britain	5	—	3	950	908	119
Germany	—	—	60	1,667	1,005	147
U. S. A.	588	2,825	6,548	5,804	2,969	2,010

(Exports. Unit: MY1,000)	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Articles and Destinations						
Castor Seed	2,013	2,795	3,036	4,383	1,793	1,284
Japan	1,125	1,348	2,775	4,361	1,779	1,284
France	4	268	19	8	—	—
Germany	53	47	—	—	—	—
Netherlands	—	36	—	—	—	—
Italy	123	339	11	14	—	—
U. S. A.	696	751	222	—	14	—
Cotton Seed	570	1,464	792	717	632	669
Japan	549	1,380	777	673	588	669
Korea	22	83	15	44	44	—
Silk, Waste	796	1,106	1,155	2,623	1,489	3,013
Japan	311	824	668	1,628	778	2,994
China	482	282	487	986	703	19
Iron, Steel, and Manufac- tures thereof	—	1,595	9,238	13,350	7,488	—
Japan	—	1,320	6,156	9,663	5,079	—
Korea	—	197	498	1,130	442	—
China	—	64	2,455	2,063	1,589	—
Glass, Window, Common, Unsilvered	1,422	1,671	1,689	1,667	1,166	—
Japan	528	237	496	33	30	—
Korea	246	367	365	373	171	—
China	496	922	623	796	611	—
Hongkong	28	25	118	189	171	—
D. E. I.	124	119	88	275	183	—
Magnesite (incl. Powder) .	643	859	1,295	2,214	1,063	1,932
Japan	628	763	844	1,251	577	1,273
Korea	14	11	10	15	4	4
Great Britain	—	9	90	112	76	131
Germany	—	4	83	95	6	90
Soapstone, Talc, (incl. Powder)	535	643	750	1,035	498	636
Japan	471	559	621	860	482	424
China	43	58	86	62	39	7
Great Britain	3	5	3	11	4	—
Germany	13	15	25	69	12	150

Table 10. Principal Imports By Countries of Origin
(MY1,000)

Articles and Origins	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Cotton Piece Goods, Grey .	18,844	24,228	32,048	42,771	20,575	25,433
Japan	14,632	22,081	28,580	34,119	16,561	19,342
Korea	563	1,225	2,477	7,988	3,490	6,084
China	3,633	914	987	663	523	5
Cotton Piece Goods, Printed	10,948	7,483	11,789	13,934	8,653	8,983
Japan	10,541	7,416	11,679	13,876	8,604	8,935
Korea	160	32	17	15	8	46
China	969	34	91	41	38	—
Great Britain	9	4	—	—	—	—
Cotton Piece Goods, Mis- cellaneous	12,440	2,979	2,895	3,504	2,483	23,373
Japan	10,978	2,911	2,820	3,451	2,446	22,358
Korea	405	16	13	19	14	831
China	969	34	35	17	12	—
Great Britain	31	9	15	6	5	—
Raw Cotton	12,284	9,407	18,601	32,202	16,476	13,409
China	507	1,098	3,431	3,630	2,830	881
British India	10,263	8,046	13,862	22,340	11,729	6,415
U. S. A.	1,038	204	837	4,962	1,719	6,013
Cotton Yarn	12,533	7,938	7,698	10,740	4,304	4,448
Japan	5,055	5,357	6,986	9,354	3,526	4,026

(Imports: Unit: MY1,000)

Articles and Origins	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Rice & Paddy	7,476	11,567	12,592	8,754	6,182	1,909
Japan	1,204	1,329	639	595	333	361
Korea	1,296	2,802	1,101	846	410	795
China	1,393	663	3,562	3,142	2,480	9
Hongkong	543	449	756	434	264	—
British India	1,534	1,994	1,318	1,955	1,477	—
French Indo-China	1,464	4,145	3,489	1,496	977	—
Wheat Flour	57,059	53,989	27,116	13,828	7,622	14,023
Japan	27,127	32,766	14,830	12,040	5,976	11,775
Korea	1,510	695	355	217	167	791
China	6,575	572	3,291	235	225	4
U. S. A.	1,357	54	108	—	—	—
Australia	20,488	9,884	8,507	1,196	1,196	—
Sugar	11,319	12,974	29,421	21,293	9,820	18,581
Japan	7,612	9,176	19,240	10,604	4,891	16,822
Korea	2,118	2,591	3,578	4,000	1,522	1,697
China	275	68	284	129	102	2
D. E. I.	288	518	4,404	5,827	2,807	—
Hongkong	935	583	1,851	536	302	2
Cigarettes	2,678	1,934	1,202	1,419	872	143
Japan	443	342	191	150	111	49
China	1,527	730	484	377	302	7
Hongkong	21	—	—	—	—	—
Great Britain	577	748	310	346	127	—
U. S. A.	44	58	56	46	24	35
Leaf Tobacco	8,558	6,067	8,848	7,597	4,710	2,717
Japan	549	411	463	406	293	123
China	4,395	3,250	5,072	3,566	2,007	986
Hongkong	27	—	—	—	—	—
D. E. I.	—	348	1	—	—	—
Great Britain	20	1	4	—	—	—
U. S. A.	3,549	1,841	3,113	3,202	2,240	1,544
Gasoline, Naphtha and Benzine	9,865	5,375	1,770	7,145	2,129	—
Japan	309	744	375	536	223	—
Korea	69	21	47	546	18	—
Russia	469	15	—	18	18	—
D. E. I.	1,593	1,680	434	760	573	—
British North Borneo ..	691	5	—	—	—	—
U. S. A.	6,728	2,209	914	2,923	265	—
Kerosene Oil	11,621	2,228	1,740	6,707	2,735	—
Japan	539	306	1,555	1,997	1,310	—
Korea	56	22	69	255	183	—
Russia	762	8	—	17	17	—
Straits Settlements ..	501	—	—	—	—	—
D. E. I.	3,798	264	21	95	84	—
British North Borneo ..	63	1	—	19	19	—
U. S. A.	5,881	1,626	95	3,520	1,105	—
Paper	12,139	12,959	16,793	24,865	11,579	14,648
Japan	9,193	10,589	13,335	20,493	9,466	12,623
Korea	328	381	836	923	553	176
China	2,075	1,220	1,788	1,629	857	—
Great Britain	56	75	45	79	53	—
Germany	148	270	135	84	46	—
Sweden	177	185	87	375	101	300
Netherlands	4	22	103	175	102	—
U. S. A.	100	77	238	179	96	—
Timber & Wood	17,499	14,310	11,746	14,888	5,517	9,147
Japan	7,636	6,515	5,643	7,832	3,000	6,934
Korea	4,145	3,622	3,418	3,429	1,131	826
China	306	158	379	405	292	34
Russia	247	458	3	82	1	—
Hongkong	38	31	44	40	24	—
U. S. A.	4,937	3,283	1,887	2,143	670	—
Canada	115	102	102	22	22	—

(Imports: Unit: MY1,000)

Articles and Origins	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Cement	7,901	3,543	3,437	1,068	503	903
Japan	5,389	2,929	3,221	457	302	618
Korea	2,414	611	213	598	200	408
China	97	3	3	4	2	5
Cotton Thread	870	1,248	1,979	2,386	1,074	1,513
Japan	458	995	1,735	2,082	983	1,503
Korea	7	5	7	12	5	4
China	55	58	23	267	4	1
Great Britain	223	142	201	—	74	—
France	33	12	11	—	—	—
Clothings, & Parts of All Kinds	10,554	11,207	13,598	17,407	6,402	1,949
Japan	8,895	10,126	12,305	16,497	6,053	1,937
Korea	206	249	238	208	116	8
China	1,334	774	900	511	168	1
Great Britain	30	44	48	—	—	—
Germany	9	65	43	—	—	—
Raw Jute	2,375	2,063	2,596	3,734	1,517	1,051
Japan	16	31	68	13	1	28
China	307	49	22	24	3	11
British India	2,051	1,982	2,504	3,696	1,513	1,006
Woolen Yarn & Cord	2,549	2,030	3,467	7,552	2,140	1,431
Japan	2,270	1,967	3,377	7,437	2,122	1,376
Korea	10	25	12	8	7	1
Great Britain	236	36	70	104	10	26
Artificial Silk Floss and Yarn	10,823	8,051	15,801	2,130	1,513	378
Japan	10,721	6,992	14,409	1,514	1,346	350
Italy	36	1,014	1,397	616	167	—
Copper	4,540	4,464	2,661	6,177	2,124	5,076
Japan	4,185	4,274	2,531	5,280	1,906	3,411
China	22	—	50	70	21	294
U. S. A.	178	167	69	824	196	1,365
Lead	1,212	1,031	1,125	2,024	931	1,387
Japan	1,177	1,012	1,206	1,590	854	886
U. S. A.	13	—	16	198	68	103
Korea	380	42	39	853	248	418
China	7,055	2,538	673	533	531	—
Gunny Bags	16,134	14,641	14,025	19,274	6,489	8,855
Japan	4,947	3,617	4,085	3,601	1,638	1,071
Korea	367	136	172	141	59	43
China	518	110	191	163	57	112
Hongkong	725	241	120	55	49	—
British India	9,566	10,537	9,456	15,314	4,686	6,997
Woollen Piece Goods	9,579	11,343	14,315	18,998	8,263	8,851
Japan	7,693	9,285	12,664	16,643	7,599	8,327
Korea	96	32	51	72	43	25
China	19	14	67	17	8	—
Great Britain	987	832	761	1,089	550	284
France	19	31	3	—	—	—
Germany	165	233	126	109	14	—
Poland	530	696	544	842	104	131
Italy	13	25	47	76	25	—
U. S. A.	32	129	15	6	6	—
Silk Piece Goods, (incl. Rayon Mix.)	10,942	19,709	35,683	30,646	19,569	18,086
Japan	9,471	19,261	35,055	29,053	18,970	17,501
Korea	49	42	254	1,162	320	493
China	1,384	371	229	329	252	51
Great Britain	13	11	23	19	5	—
France	5	7	15	12	3	—
Germany	5	12	25	13	4	—

Articles and Origins	(Imports: Unit: MY1,000)					
	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Iron & Steel	58,227	51,540	39,506	76,429	29,243	64,944
Japan	46,793	42,164	34,492	55,397	23,338	28,983
Korea	1,425	381	1,329	462	220	168
China	416	38	57	138	58	168
Great Britain	1,045	1,078	154	961	510	205
Germany	5,609	5,203	1,558	2,153	817	1,508
Belgium	494	1,237	586	3,329	1,250	1,971
Netherlands	238	126	102	14	1	—
Denmark	15	18	7	43	42	—
Norway	46	—	—	—	—	—
U. S. A.	2,078	1,243	1,001	9,589	2,103	26,735
Machineries (incl. scientific, electric apparatus, vehicles, etc.)	85,224	107,313	126,645	166,321	73,269	98,375
Japan	61,500	78,745	87,689	124,330	52,761	25,051
Korea	1,684	994	906	889	615	171
China	829	858	428	589	1,564	29
Great Britain	1,798	2,387	2,341	3,671	1,416	1,631
France	41	21	59	98	33	—
Germany	2,880	3,707	5,459	6,005	3,238	464
Sweden	380	666	558	2,293	771	—
Italy	257	—	—	—	—	—
U. S. A.	3,656	4,617	5,805	12,201	5,417	55
Tea	3,023	3,136	3,732	4,120	1,611	1,999
Japan	859	1,218	1,127	1,708	574	1,340
Korea	6	3	4	7	3	1
China	2,084	1,832	2,463	2,221	970	644
British India	66	76	124	148	62	10
Aquatic Products	8,238	8,553	12,005	20,585	6,977	5,484
Japan	5,045	6,189	8,262	14,422	4,109	2,843
Korea	1,821	1,812	2,922	5,215	2,179	2,398
China	704	272	570	443	318	228
Hongkong	52	31	109	217	179	—
Fruits, Fresh	—	7,852	8,371	8,011	4,200	3,807
Japan	—	5,616	5,950	5,968	3,453	3,596
Korea	—	610	517	396	126	117
China	—	1,281	615	1,252	370	75
U. S. A.	—	317	253	370	236	17
Vegetables, Fresh	—	3,158	3,938	4,643	2,516	2,002
Japan	—	2,018	2,681	3,352	1,614	1,426
Korea	—	88	52	133	38	33
China	—	996	1,164	1,082	797	542
Wines, Beer, Spirits, Table Waters, etc.	6,980	7,965	8,368	9,969	4,006	3,488
Japan	5,743	7,014	7,088	8,537	3,340	3,170
Korea	177	85	371	306	167	318
China	145	56	99	45	32	—
Great Britain	655	545	535	571	314	—
France	122	139	168	343	97	—
Soda Ash	1,608	1,601	1,633	1,447	843	34
Japan	335	989	959	520	404	34
China	251	136	145	43	33	—
Great Britain	858	469	526	884	406	—
Dyes, Pigments, Paints, & Varnishes	5,608	6,745	7,258	11,598	6,142	4,337
Japan	2,568	3,413	4,102	5,746	2,764	3,718
Korea	40	42	34	32	15	26
China	420	287	370	289	213	46
Hongkong	263	157	111	102	65	—
Great Britain	614	458	475	658	309	5
Germany	1,190	1,751	1,622	3,669	2,257	270
U. S. A.	445	602	431	732	312	164
Lubricating Oil	3,202	2,850	3,210	4,513	1,904	—
Japan	1,792	1,589	1,539	2,408	1,005	—

Articles and Origins	(Imports: Unit: MY1,000)					
	1934	1935	1936	1937	1937 (1st half)	1938 (1st half)
Articles and Origins						
Korea	23	31	24	52	25	—
U. S. A.	1,074	1,041	1,541	1,706	692	—
Soap	2,022	2,206	2,986	4,070	2,339	3,241
Japan	1,650	2,079	2,509	3,384	1,829	2,607
Korea	25	49	324	619	463	619
China	303	27	104	33	26	—
Paperware	5,344	5,863	8,248	10,221	4,419	803
Japan	3,844	1,480	1,604	8,732	1,224	780
Korea	104	131	141	104	57	1
China	1,134	988	1,037	1,206	709	—
Hides & Leather	—	2,697	4,297	4,949	2,707	4,768
Japan	—	1,480	1,604	2,434	1,224	2,273
Korea	—	291	541	678	341	497
China	—	623	1,521	1,201	782	1,625
Hongkong	—	123	340	250	168	153
Great Britain	—	21	72	46	20	—
Germany	—	28	32	46	29	—
U. S. A.	—	115	131	123	65	45
Other	—	—	—	—	—	—
Skins (Furs)	1,815	1,421	1,154	1,856	716	1,226
Japan	29	56	74	64	24	44
Korea	74	30	53	41	38	22
China	887	280	275	329	176	126
U. S. A.	494	837	606	880	396	926
Chinaware	2,015	2,107	2,446	3,112	1,201	—
Japan	1,489	1,803	1,891	2,553	967	—
Korea	62	49	39	49	29	—
China	454	253	515	510	204	—
Toys & Games	909	1,130	1,137	1,343	749	726
Japan	750	971	1,019	1,165	655	707
China	112	91	84	65	53	13
Germany	12	30	12	25	10	—
U. S. A.	3	14	11	73	20	—

International Accounts for 1936

Including the Kwantung Leased Territory, Manchoukuo's visible exports for 1936 totalled MY602,759,000 as against imports of MY691,889,000, resulting in an MY89,130,000 import excess, while in invisible exports and imports, the accounts receivable reached MY762,845,000 and the accounts payable MY595,180,000, leaving a favourable balance of MY167,665,000. So there remained a favourable net balance of MY73,535,000 in 1936, according to the official announcement by the Manchoukuo Department of Economics.

Both invisible exports and imports of Manchoukuo in 1936 denoted a gain over the preceding year. Investments in Manchoukuo increased approximately by MY90,000,000 in 1936 over 1935.

Table 11. Visible and Invisible Foreign Trade (In MY1,000)

	1936	1935
Visible Foreign Trade:		
Exports	602,759	421,078
Imports	691,889	604,149
Excess of Imports	89,130	183,072

Invisible Foreign Trade:

	1935	1936
Exports (receipts)	762,845	622,361
Imports (payment)	595,180	342,827
Excess of Exports (receipts)	167,665	280,034

Grand Total

Total Exports (receipts)	1,365,604	1,043,939
Total Imports (payments)	1,287,070	946,977
Excess of Exports (receipts)	73,535	96,962

Invisible Foreign Trade

Items	1935	1936
I. Assets (Invisible exports or inward accounts):		
(a) Ordinary receipts:		
Interest and dividends and foreign securities	6,419	4,378
Interest on overseas deposits and loans to foreign countries	7,369	4,658
Net profit from overseas enterprises	1,817	663
Receipts in connection with shipping	18,269	19,334
Receipts in connection with insurance	8,104	6,680

	1936	1935
Receipts from foreigners in Manchoukuo	153,577	123,192
Receipts by Manchoukuo Government (not included elsewhere)	704	502
Others	4,335	3,674
Total	200,594	163,081

(b) Extraordinary receipts:		
Foreign capital invested in Manchoukuo	495,126	404,030
Collection of capital invested abroad	67,125	55,750
Total	562,252	459,779
Grand total	762,845	622,861

II. Liabilities (Invisible imports or outward accounts):

(a) Ordinary payments: (payments)		
Interest and dividends on Manchoukuo securities possessed by foreign nationals	88,377	72,841
Interest on foreign loans and deposits	8,486	7,730
Net profit from foreign enterprises in Manchoukuo	8,692	7,730
Funds taken out by emigrants and returning immigrants, immigrants' remittances	45,392	41,863
Payments in connection with shipping	4,421	4,055
Payments in connection with insurance	18,636	14,866
Amounts expended by Manchoukuoans abroad	37,616	25,289
Payments abroad by Manchoukuo Government (not included elsewhere)	27,834	1,549
Others	9,001	4,604
Total	248,456	183,873

(b) Extraordinary payments:		
Investment abroad of Manchoukuo capital ...	64,791	72,705
Collection of foreign capital invested in Manchoukuo	236,056	20,810
Others	45,877	65,440
Total	346,724	158,955
Grand total	595,180	342,827

Vessels Entered and Cleared

The number of vessels entered and cleared in 1937 showed a small contraction over the corresponding figures for the preceding five years. The same trend was noticeable in tonnage also. Japanese vessels have been accounting for the largest share in shipping. In 1937 about 42 per cent of the vessels entered and cleared flew under the Japanese flag.

Shipping by Ports.—About 92 per cent of the vessels entering and clearing Manchurian ports was accounted for by Dairen in 1937.

This was followed by the ports of Yingkow, Antung and Shanhaikwan in the order named.

Table 12. Vessels Entered and Cleared

Year	(A) Tonnage			
	Entered		Cleared	
	No.	Tons	No.	Tons
1929.....	6,422	8,271,819	6,312	8,172,118
1930.....	5,671	7,445,225	5,205	7,362,571
1931.....	6,633	8,082,898	6,089	7,999,269
1932.....	5,569	8,208,749	5,518	8,065,965
1933.....	5,394	8,456,400	5,437	8,591,502
1934.....	5,779	9,445,000	5,735	9,466,956
1935.....	5,523	8,924,566	5,534	9,118,980
1936.....	5,292	8,322,857	5,333	8,416,884
1937.....	4,839	7,622,809	4,894	7,695,528

Flag	(B) By Flags			
	Entered		Cleared	
	No.	Tons	No.	Tons
Manchoukuo ..	365	218,463	357	212,106
Kwantung ..	1,032	1,517,963	1,080	1,588,546
Japanese	2,117	3,292,016	2,120	3,264,397
Chinese	807	816,211	818	829,300
Russian	1	2,493	1	2,493
British	269	804,378	270	824,517
French	4	6,428	4	6,428
German	80	347,584	79	343,757
Dutch	25	120,256	25	125,156
Danish	17	76,223	17	76,223
Swedish	18	65,557	18	65,557
Norwegian ..	66	221,305	66	221,305
Italian	13	46,783	13	46,783
Greek	9	28,873	10	30,582
American ...	14	50,995	14	50,995
Total	4,839	7,622,809	4,894	7,695,528

THE NEW CUSTOMS TARIFF

A new custom tariff law and a drastically revised tariff were promulgated on December 20, 1937 and took effect on January 1, 1938. The laws and regulations on which the Manchurian customs service was based hitherto were mainly composed of a number of Inspector-General's Circulars of the Chinese Customs, and those published from time to time by the Manchoukuo Government in response to the changing economic situation. The Inspector-General Circulars, published from time to time concerning single cases, were too complicated and unsystematical for the general public to comprehend. Moreover, there were many regulations which did not apply to the actual economic conditions. The tariff too, though it had undergone three minor revisions, was still composed mainly of the tariff of the old regime, so that it too was not adapted for the new economic situation. Therefore, the Government of Manchoukuo found it necessary to enact a new customs law and to drastically revise the customs tariff.

The new law was enacted with three objects

in view, namely: (1) it is to be a synthetic law regulating the whole customs formalities and customs administrative measures; (2) it is to be the basic law regulating all matters concerning import and export trades; (3) it is designed to give a full and exact account of international trade.

Stat of the Law

The Finance and Commerce Minister may, for the sake of convenience, set a price nearest to the normal price of a dutiable article at the frontier as the standard of its assessment to be applied for a certain definite period of time.

The collection of duties shall as a general rule be made according to the general rule applied to the collection of inland tax. Travelers' personal effects, and others, however, shall be dealt with leniently. The prescription of the right to claim refund against the Government for the amount overpaid by mistake shall expire in two years, while the right to claim against an importer or exporter for the duty evaded without sufficient reason shall expire in five years.

The names of goods which are generally exempted from taxation by the legislations of modern states, for example, goods used by the Imperial family and the foreign diplomatic corps, and personal effects of tourists are specifically enumerated as far as possible in order to remove possible complications and ambiguities applying the law.

In view of the special conditions of this country, specific exemption points are stipulated for articles of small prices, and small articles traded at the frontier, except goods for military use, and those for the state railways and key industries. Protestation may be tendered to the Customs Inspector-General for his disposition concerning assessment, exemption, or collection of duties. In case the protester be not satisfied with the decision of the Inspector-General, he may take legal proceedings.

Bonded areas are divided into two classes: specified and special bonded areas. The former areas are composed of five kinds and the latter three. There are six kinds of customs formalities under the new law. In view of the special conditions of this country, habitual smuggles shall be severely dealt with.

Motives of Revision

Revision of import tariff was carried out on the basis of actual results of trade, industrial enterprises and finance since 1932 with a view (1) to expedite the realization of the Five-Year Plan, (2) to improve the balance of interna-

venue resources, (4) to make the burden of customs duties equitable, and (5) to promote a smooth development of the trade between Japan and Manchoukuo. In order words, the customs tariff was revised to cope with the second stage of economic construction of Manchoukuo and the changed international situation.

In selecting and classifying dutiable goods, special attention was paid to the actual situation of domestic industry and foreign trade. Classification was rationalized and simplified, while special attention was paid to prevent legal smuggle through over-simplification of classification. The metric system was applied throughout. In order to secure customs revenue as a whole, the average tariff rate of all the dutiable articles of imports and exports has been made equal to the average rate for 1935 and 1936. The burdens of taxation on specific duty goods and ad valorem duty goods were equalized with due consideration of the trend of commodity prices.

As regards jewelry, wrist-watches and other ornamental goods liable to tax-evasion, the tariff thereon has been made equal to that of the Kwantung Leased Territory, on the basis of revenue tariff policy.

Daily necessities such as fresh vegetables, tangle, fish both salted and fresh, sanitary articles like serum, vaccines and tooth-paste and powder, paraphernalia, newspapers, books and other printed matters necessary for cultural education are either duty-free or charged low duties.

Import duties on silk, rayon and their manufactures have been reasonably lowered, in view of the fact that existing duties are rather too high, resulting in the smuggling of considerable quantities of these goods. Special consideration has been paid to a revision of duties on the goods of State monopolies. As regards the goods subject to excise duties, no customs duties are imposed in principle. Taxation on goods covered by the Five-Year Plan or the Law Controlling Important Industries was conformed to the State industrial policy as expressed in the Plan and the Law. As regards other goods, duties were so fixed as to protect or assist those industries which are adapted to domestic production.

Customs Tariff Policy According to Industries

The Government's customs policy according to industry is as follows:

Mining and Manufacturing Industries.—In addition to the adjustment of duties on minerals, their manufactured articles, and machinery thereof, basic construction articles and equipment, (2) to improve the balance of interna-

ment of important industries such as aircraft, light metal, gold mining and refining, coal liquefaction, shale-oil, iron and steel, hydro-electric and coal mining are duty-free according to the articles of the Customs Law. As regards arms, aircraft and rolling-stock industries, bonded factory system has been instituted.

Agriculture.—Seeds and kernels for food and medicine were made duty-free in principle, provided they are imported for cultivation. Agricultural machinery and tools are also exempted from taxation. Agricultural produce for domestic industries such as wheat, hemp, cotton, leaf tobacco, beet, etc., is given as much protection as possible.

Live-stock.—With a view to enriching live-stock and its products, live cows, horses, donkeys, mules, goats, sheep (and bees) are duty-free. Live-stock for improvement purposes also is exempted from taxation. So is medicine for the prevention of veterinary diseases.

Flood-relief Surtax.—For sake of convenience the flood-relief surtax has been incorporated into the revised tariff.

Revised Export Tariff

Revenue tariff policy was applied to exports in principle, and as the first step only minimum export duties enough to cover the decrease of total customs revenue caused as a result of the revision of import tariff are levied. But, an exception to the principle are duties on certain articles restriction of whose export was deemed advisable.

As to the items of dutiable goods, articles which produce large customs revenue were chosen according to the principle of revenue tariff policy mentioned above, but those articles whose export is not advisable or is deemed advisable to be restricted or those raw materials which had better be manufactured in home factories are dutiable, even though they do not produce large duties. On the other hand, products of nascent industries are duty-free. Bean-cake, kaoliang, maize and pig-iron are duty-free in view of the fact that it is advisable to develop their export. As a result of the above drastic revision, the number of dutiable articles was reduced from 275 to only 20. In the export tariff, specific duty system is applied as a general rule and the metric system is used as in the case of import tariff.

Government's Customs Tariff Policy Toward Manufacturing Industries

The customs policy of Manchoukuo toward

main branches of manufacturing industries as expounded in the revised tariff was summarized by the Manshu Nichinichi, December 21, 1937 as follows:

(1) **Iron and Steel Industries.**—In order to alleviate and to make equitable the burden of duties on their consumers, the size of duties on iron, steel and their manufactures was fixed in proportion to the degree of manufacturing. Secondly, the tariff on these goods was revised so as to place the State on a self-sufficient basis as regards these goods. On the other hand, the basic materials for heavy industries not produced within the State were made duty-free as a rule. Through these measures the Government hopes to expedite the smooth development of the steel industry in the country.

(2) **Automobile Manufacturing Industry.**—In order to protect the existing assembling plants and to eventually develop domestic production of cars, the import duty on cars was raised from 30 to 50 per cent while that on parts was left as it was, i.e., 10 per cent.

(3) **Soda Industry.**—With a view to placing the soda industry on a firm basis, and to alleviating the tax burden on the consumer, the products of the Manchu Soda Manufacturing Company are to be treated as re-exports and the import duty in soda-ash was fixed at MY2 per 100 kilograms.

(4) **Cement Industry.**—The import duty on cement was raised from MY7.35 per metric ton to MY8, and that on clinker was fixed at MY2.

(5) **Cotton Textile Industry.**—General speaking the revenue tariff policy was adopted for this industry.

(6) **Hosiery Industry.**—The import duty on knit goods was reduced to 17.5 per cent and that on stockings and socks was fixed uniformly at MY83 per 100 kilograms.

(7) **Woolen Industry.**—The import duty on wool and its manufactures was so revised as to protect the domestic production of woolen industry.

(8) **Hemp-dressing Industry.**—In view of the importance of gunny-bags for packing staple produce the import duty on hemp was so revised as to protect its home production on the one hand and on the other to encourage the use of kenaf which is increasingly produced in this country as a substitute for hemp.

(9) **Dyeing Industry.**—With a view to protecting the domestic dyeing industry, the import duty on dye-stuffs was reduced and the difference of duties between undyed any dyed Tachihpu or nankeen for the domestic small-scale dyeing factories was increased from MY2.15 to MY6.00.

(10) **Sugar Industry.**—Aiming at the protection of the domestic beet-sugar industry, the difference of import duties between raw and refined sugars was increased to MY1.03 to MY1.50.

(11) **Tobacco Industry.**—Protective policy was applied to the tobacco industry. The im-

port tariff was divided into three classes and that of all the three classes was raised. The import duties on manufactured tobacco, cigars and cigarettes were uniformly revised to 100 per cent ad valorem, and that on cigarette papers to 35 per cent ad valorem.

NEW GERMAN-MANCHOUKUO TRADE AGREEMENT

A new trade agreement providing for a considerable expansion of past trade as stipulated in the former agreement of April 30, 1936, was formally signed on September 14, 1938 at Hsinking between Mr. Tsai Yun-sheng, Director of the Manchoukuo Foreign Office, and Dr. Karl Knoll, the German Charge d'Affaires in Hsinking.

Under the new agreement which remains in force from June 1, 1938, until the end of May, 1940, an equal increase of 45 million Reichsmarks (63,750,000 yuan, Manchoukuo currency) is provided for as to the past quotas of imports for Germany and Manchoukuo which were 10 million and 25 million yuan, respectively. The expansion of trade between Manchoukuo and Germany has been agreed upon because Manchoukuo in connection with her five-year industrial development plan sees the need for importing more German commodities, especially machinery while on the other hand, Germany also has found it necessary to import more Manchurian farm produce under her victualling policy.

For the settlement of accounts arising from the additional trade arrangement, Germany in the new agreement agrees to cause her banking syndicate to advance the maximum sum of 63,750,000 yuan to the Yokohama Specie Bank, which can be utilized by Manchoukuo to pay for her additional quota of imports from Germany. At the same time, in case Germany imports Manchurian produce to an amount exceeding 100 million yuan, Manchoukuo agrees to deposit that surplus, in the Reichsmarks, in her special account at the Yokohama Specie Bank in Germany, for a mutual balance of accounts. As regards the Manchurian commodities which Germany desires to import under the new additional trade arrangements, buckwheat, leathers, wild silk, kaoliang, and apricots, it is understood, will be included.

Text of Agreement

An unofficial translation of the text of the new Reich-Manchoukuo Trade Agreement formally signed at Hsinking on September 14,

1938, which is composed of 15 articles in all is as follows:

Article 1. The Government of Germany shall admit the importation of products of Manchoukuo to the amount of 100 million yuan in value, calculated on the basis of c.i.f. prices, into Germany during the period of one year and shall grant exchange licences necessary therefor.

Article 2. Payments in respect of importation as referred to in Article 1 shall be made as to three-fourths (75 million yuan) in foreign exchange and to one-fourth (25 million yuan) in Reichsmarks, the latter to be utilized for payments to be made in respect of products of Germany imported to Manchoukuo.

Article 3. If, owing to unforeseen circumstances, the exchange situation in Germany should render it impossible for the German Government to make available foreign exchange to the amount of 75 million yuan as provided for in Article 2 during the period of one year, the amount of importation provided for in Article 1 may be reduced to not less than 65 million yuan in value, the payment of which shall be made as to three-fourths in foreign exchange and one-fourth in Reichsmarks.

In so far as the annual surplus of foreign exchange accruing to the Reichsbank from German trade with Japan exceeds the amount of 63,750,000 yuan, such excess shall be made available for additional German importation from Manchoukuo payable in foreign exchange beyond the amount provided for in the preceding paragraph and the importation against payment in Reichsmarks shall be increased by one-third of such excess.

Article 4. The Government of Manchoukuo shall take the necessary measures to ensure sufficient importation, calculated on the basis of c.i.f. prices, into Manchoukuo of products of Germany during the period of one year, to utilize the whole amount of Reichsmarks paid into a special account in accordance with Article 2 and Article 3.

The Manchoukuo Government shall authorize the payments necessary therefor within due time or shall grant the necessary exchange licences.

Article 5. The Government of Germany shall admit the importation of products of Manchoukuo, to a fixed amount, calculated on the basis of c.i.f. prices, during the period of one year, other than those mentioned on "A" list of products to be exchanged between the two countries.

The Government of Manchoukuo shall admit the importation of products of Germany to Manchoukuo to a fixed amount, calculated on the basis of c.i.f. prices, within the period of one year, other than those mentioned on "B" list of products to be exchanged between the two countries.

A list of the products and amount as referred to in the preceding paragraph shall be determined during the month of April, every year, for the next year between competent authorities of both countries. As to any revision thereof, competent authorities of both countries may open

consultation at any time.

Article 6. Both Governments in case they apply their existing embargoes or restrictions on exports and imports to other commodities shall pay proper consideration to each other's interests.

Article 7. Products of Germany shipped to Manchoukuo shall be accompanied by a copy of the invoice bearing a statement by the exporter to the effect that they are products of Germany and by a copy of the "A" Export-Declaration through which the Reichsbank is notified by the exporters of the amount of the products involved in accordance with the German regulations for the control of foreign exchange. These documents shall be presented to the Customs authorities of Manchoukuo. If the said customs authorities handle any products of Germany unaccompanied by the "A" Export-Declaration, they shall notify the authorities of Germany of the name of the exporter, the description of the products and the invoice amount. The Customs authorities of Manchoukuo as referred to herein shall include the Custom-houses of Manchoukuo in Dalren, Selslin, Rashin and Yuki.

Article 8. Products of Manchoukuo shipped to Germany through a third country shall not come under the present arrangement, if the payments for such products are effected under a clearing or compensation arrangement between Germany and such third country.

Article 9. Private clearing transactions in trade between Manchoukuo and Germany require the approval of the authorities of the two countries.

Article 10. The amount of trade effected between Manchoukuo and Germany shall be ascertained quarterly in Berlin by competent representatives of the contracting parties. On such occasions, questions arising out of the operation of the present Agreement may be settled by consultation between the said representatives.

Article 11. If, at the end of a period of one year the present Agreement is renewed and there exists in the total amount of imports from Manchoukuo to Germany or vice versa a deficit in or an excess over the amount provided for in the present Agreement, the amounts to be fixed for the following year shall be increased or decreased by the amount of such deficit or excess.

(A) In case the amount of imports shows a deficit the amount of imports for the following year shall be increased by the amount of the said deficit.

(B) In case the amount of imports shows an excess, either of the contracting parties shall, at the latest during the following year, additionally buy products of the other party to the amount of 45 million Reichsmarks through a special account. Either of the contracting parties in case it imports products of the other party to an amount exceeding aforementioned sum shall make the necessary payments in foreign exchange.

Article 12. The organization of the special accounts in Reichsmarks as referred to in Article 2 and Item (B) of Article 11 and the conditions of utilizing such

accounts shall be determined by an agreement between the Reichsbank and the bank as referred to in Article 2, which agreement shall be subject to the approval of the contracting parties.

Article 13. In so far as German exports to Manchoukuo are financed by banks, competent authorities of Manchoukuo shall take measures to prevent at least 25 per cent of such financing from being handled by other banks than the bank referred to in Article 2.

Article 14. For the purpose of the present Agreement:

(A) The term "period of one year" means one year beginning on June 1.

(B) The term "products of Germany" means products either exclusively produced in Germany or subjected therein to an essential transformation effected in the course of an ultimate process which has economic justification.

(C) The term "products of Manchoukuo" means products either exclusively produced in Manchoukuo or subjected therein to an essential transformation effected in the course of an ultimate process which has economic justification.

(D) Products of the Territory of Kwantung exported to Germany shall be regarded as exports from Manchoukuo in the calculation of trade under the present Agreement.

(E) Products of Germany imported to the Territory of Kwantung shall be regarded as imports to Manchoukuo in the calculation of trade under the present Agreement.

Article 15. The present Agreement shall replace the agreement concluded between Manchoukuo and Germany on April 30, 1936, and extended on May 21, 1937.

The present Agreement shall be ratified as quickly as possible, ratifications to be exchanged at Berlin. The present Agreement shall enter into force on the day when the exchange of ratifications takes place, but the high contracting parties have mutually consented to apply the present Agreement, from the date of the signing thereof and prior to the exchange of ratifications, as from June 1, 1935. The present Agreement shall remain in force until May 31, 1940.

Either of the contracting parties after January 1, 1939, notifies the other of a desire to revise the present Agreement, the latter shall consent to open consultations thereabout. In case the said consultations fail to reach accord within four months from the date when the aforementioned desire to revise the Agreement is communicated, the high contracting party desiring the said revision may give notice of its abolition of the Agreement. The said notice of abolition shall become effective on the first June 1 to come after the notice is given.

For the purpose of renewing the present Agreement for a period later than May 31, 1940, both contracting parties shall enter into negotiations not later than February 1, 1934.

CHAPTER XXIII

SANITATION

Public Health Organization

The supervision of public health is under the Public Health Bureau of the Civil Affairs Department. The Bureau consists of the General Affairs, Medical, Epidemic and Sanitation Sections. The provincial public health detachments have been increased in number since the establishment of Manchoukuo, and at present they are rendering active service in conjunction with the police corps.

In order to propagate sanitary idea among the people and improve their general health, the Government has established the "Kungyi" (public physician) system which is being put into practice according to the following plan:

1. One public physician to be appointed to each district (hsien);
2. The present plan to be executed within five years, inasmuch as it is difficult to cover all the district at the same time for financial and other reasons;
3. Besides carrying on his regular practice, a public physician is to take charge of matters relating to public health, sanitary investigation and medical affairs of the police;
4. Coupons for free medical treatment to be issued to the poor and needy.

Up to November, 1936 67 physicians have been despatched to 67 different districts by the Departments of Civil Affairs and Mongolia Administration.

Physicians

Physicians are classified into two categories, those of the native and western schools. At the end of April 1935 there were in all 12,914 physicians of whom 2,497 were qualified practitioners of western medicine. Contrasted with the entire population there was a physician to every 2,600 persons.

Diseases & Hospitals

Ailments reported in largest numbers are stomach, skin and respiratory diseases. The public physicians numbering 63 treated a total

of 63,156 patients in 1935 of whom 56,874 were Manchoukuoans.

There were in 1935 three government hospitals situated in the provinces of Kirin, Chinchow and in the city of Harbin, and fourteen public hospitals in the provinces of Fengtien, Pinkiang, Antung, Chinchow and the cities of Hsinking and Harbin.

Table 1. Number of Infectious Cases and Mortality (1935)

	Patients	Mortality
Kirin Province	8,158	1,088
Lungkiang "	31,686	2,759
Heiho "	1,645	4
Sankiang "	4,410	523
Pinkiang "	20,003	2,125
Mutankiang "		
Chientao "	4,388	216
Antung "	14,628	1,334
Tunghua "		
Fengtien "	66,969	3,987
Chinchow "	20,402	610
Jehol "	4,742	545
Hsinking Special Municipality	3,051	364
Harbin Special Municipality	3,020	279
North Manchuria Special District	9,454	742
Hsinging North Province	1,727	204
Total	194,883	14,780

Table 2. No. of Hospitals, etc. (1935)

Province	Govt. Hospital	Public Hospital	Public Physician	Opium Infirmiary	Quarantine Station
Kirin	1	—	6	1	—
Lungkiang	—	—	10	1	—
Heiho	—	—	2	—	1
Sankiang	—	—	8	—	—
Pinkiang	—	1	9	—	1
Mutankiang					
Chientao	—	—	2	—	—
Antung	—	1	5	1	1
Tunghua					
Fengtien	—	9	5	2	1
Chinchow	—	1	5	1	1
Jehol	1	—	9	1	—
Hsinging	—	—	2	1	1
Hsinking*	—	1	—	1	—
Harbin*	1	1	—	1	—
Total	3	14	63	10	6

* Special Municipality.

Table 3. Number of Patients Treated by Public Physicians (1936)

	Manchouk oans		Others		Total
	Male	Female	Male	Female	
Constitutional Diseases	1,275	601	149	80	2,105
Psychosis	178	121	6	8	313
Nervous System	1,727	927	188	154	2,996

References:

- Table Nos.: 1-10 a, 11 b, 12 a.
- Key: a—Monthly Return of Foreign Trade.
- b—Finance Department.

	Manchoukuoans		Others		Total
	Male	Female	Male	Female	
Circulatory System	1,380	1,225	109	91	2,805
Eye	3,493	1,674	320	205	5,682
Ear	1,639	749	280	172	2,840
Nose and Throat	1,581	894	357	233	3,065
Respiratory System	6,243	3,281	1,010	691	11,227
Digestive Organs	10,132	5,375	1,367	1,049	17,923
Tooth	1,236	672	254	160	2,222
Organs of Locomotion	1,402	583	119	51	2,195
Skin and Annexa	6,893	2,510	627	317	10,347
Urinary and Genital Organs	1,101	863	225	316	2,505
Wounds	5,142	881	639	168	6,830
Drowned, Frozen and Hung	41	25	5	—	70
Malformation	24	12	1	2	39
Childbirth and Pregnancy	—	864	—	497	1,361
Acute Poisoning	207	266	20	40	533
Chronic Poisoning	421	152	17	25	615
Tumours	381	183	23	16	593
Parasites	1,829	661	379	416	3,305
Beri-beri	111	17	85	102	315
Infectious Diseases	18,049	9,796	2,988	6,811	32,644
Unknown	410	122	18	13	563

Table 4. No. of Physicians (End of 1936)

Manchoukuo:	European medical Schooling		Chinese medical Schooling		Total
Kirin Province	192	2,193	2,385		
Lungkiang "	160	482	642		
Heiho "	5	18	23		
Sankiang "	56	215	271		
Pinkiang & Mutankiang Provinces	161	1,176	1,337		
Chientao "	131	136	267		
Antung & Tunghua Provinces	157	455	612		
Fengtien "	799	3,194	3,993		
Chinchow "	121	730	851		
Jehol "	12	130	142		
Hsinking	8	221	229		
Harbin	168	158	326		
North Manchuria Special Districts	78	64	142		
Hsingan: Four Provinces	27	153	180		
Total	2,075	9,325	11,400		
Kwantung Province & S.M.R. Zone			876		

Table 5. Capacity, Staff, etc. of Principal Hospitals in 1935

Hospital	No. of Beds	Physicians	Pharmacists	Out-patients (Daily average)		Yearly Subsidy
				Others		
Kirin Government Hospital	40 (63)	11	1	32	144	—
Harbin Government Hospital	35	5	1	13	26	—
Chengteh Government Hospital	10 (20)	2	1	6	33	—
Mukden Municipal Hospital	55	9	2	13	130	3,000
Harbin Special 2nd Municipal Hospital	250 (290)	13	2	39	45	—
Liaoyang Kyusai-in	50 (100)	2	1	17	100	1,300
Hsifeng-hsien Hospital	20 (30)	4	2	7	50	10,000

N.B.:—() Maximum Capacity.

Table 6. Number of Patients Examined by Official Physicians (1935)

Province:	Manchoukuoans			Foreigners		
	Male	Female	Total	Male	Female	Total
Kirin	1,709	677	2,386	179	104	283
Lungkiang	4,229	2,270	6,499	162	97	259
Heiho	282	78	360	29	13	42
Sankiang	3,639	2,317	5,956	1,049	761	1,810
Pinkiang	4,653	2,237	6,890	502	386	888
Mutankiang						
Chientao	872	460	1,332	98	41	139

	Manchoukuoans			Foreigners		
	Male	Female	Total	Male	Female	Total
Antung	6,726	2,866	9,592	314	97	411
Tunghua						
Fengtien				732	346	1,078
Chinchow				80	40	120
Jehol				684	426	1,110
Hsingan	1,224	667	1,891	85	57	142
Total	38,201	18,673	56,874	3,914	2,368	6,282
Total for 1934	4,058	1,701	6,141	289	93	382

N.B.:—Total for 1934 are from April to December.

Table 7. Number of Patients at State Hospitals

1934:	No. of in-patients	No. of out-patients	Total	1935:	No. of in-patients	No. of out-patients	Total
Harbin	1,498	4,084	5,582	Harbin	2,962	9,352	12,314
Chengteh	253	3,431	3,684	Chengteh	3,772	11,991	15,763
Total	6,891	27,605	34,496	Total	21,125	73,785	94,910

Table 8. Number and Kinds of Diseases Treated at State Hospitals in 1935

	Manchoukuoans		Foreigners	
	Male	Female	Male	Female
Constitutional Diseases	48	26	2	3
Psychosis	12	2	5	5
Nervous System	177	91	48	50
Circulatory System	65	38	19	15
Eye	416	172	136	109
Ear	365	121	147	91
Nose & Throat	327	129	163	94
Respiratory System	532	269	325	251
Digestive System	900	474	495	387
Teeth	215	122	175	150
Organs of Locomotion	94	46	29	13
Skin	1,141	451	251	241
Urinary & Genital Organs	135	304	99	358
Wounds	635	93	97	44
Drowned, Frozen & Hung	4	1	—	—
Malformation	18	1	—	—
Childbirth & Pregnancy	—	90	—	218
Acute Poisoning	48	50	3	3
Chronic Poisoning	6	1	4	3
Cancer Tumours	3	4	1	—
Malignant Tumours	20	7	2	—
Other Tumours	269	74	11	4
Hookworm	—	—	2	—
Tapeworm	4	2	—	1
Roundworm	32	22	6	9
Lungs Leech	—	—	—	—
Liver Leech	—	—	—	—
Other Protozoa	4	4	—	1
Beri-Beri	2	2	17	33
Infectious Diseases	1,496	569	393	209
Unknown	36	9	11	6
Others	16	6	3	1
Total	7,020	3,180	2,444	2,299

Table 9. Foreign Hospitals

	Location	Nationality
Christian Free Hospital	Hsinking	British
Hsinking Christian Hospital for Women	"	"
Hsinking Free Hospital	"	French
Christian Hospital for Women	Chinchow	British
Liaoyang Hospital for Women	Liaoyang	"
British Hospital	Hailung	"
Puai Hospital	Hsinminfu	"
Weimei Hospital	Hs'nminfu	"
Free Hospital of Tiehling Christian Church	Tiehling	"
Kaiyuan Christian Church Hospital	Kaiyuan	"

	Location	Nationality
Fakumen Christian Church Hospital	Fakumen	"
Kirin Anglican Church Hospital	Kirin	"
Antung Danish Hospital	Antung	Danish
Hsishan Hospital	Hsiuyehhsiencheng	"
Chenghonan Hospital	Chenghonan	British
Tsichang Hospital	Lungtsingtsun	Canadian

Hygienic administration in the Kwantung Leased Territory and the Railway Zone is controlled by the Police Bureau of the Kwantung Government and administrative measures in the Railway Zone are participated in by the local affairs department of the South Manchuria Railway. Quarantine and other hygienic matters in the harbours of Dairen and Port Arthur come under the jurisdiction of the Marine Bureau of the Kwantung Government. Bacteriological laboratories have been established by the South Manchuria Railway, Co. at Mukden, Yingkow, Antung, Hsinking and Fushun. To each laboratory medical experts and officers are attached to enforce epidemic prevention measures. While the Kwantung Government maintains five hospitals in the Leased Territory, the South Manchuria Railway has also established and maintains hospitals and their branches at twenty-four places, most of them in the Railway zone, besides maintaining several hygienic institutions. These Japanese hospitals, including those maintained by the Japan Red Cross Society, give medical treatment without discrimination to Japanese, Manchoukuoans and other nationals living in or outside the Railway Zone. In recent years, the number of Manchoukuoans utilizing these Japanese hospitals has gradually increased, their treatments by day reaching over a million a year.

S.M.R. Hygienic and Sanitation Activities

Ever since its commencement three decades ago, the South Manchuria Railway Company has taken an active part in bringing about the observation and enforcement of the ordinary sanitation measures among a primitive population, and also in keeping a constant vigil over the possible outbreak of dreaded and deadly epidemics. In strict adherence to this principle, the Company has been playing an important role in carrying on free vaccination and various

innoculations against epidemic whenever necessity arose. The systematic and scientific analysis of drinking water in the various localities is also a great factor in the prevention of diseases. In the humanitarian enterprises of the elimination of epidemic diseases such as bubonic plague, the Company has spared no efforts and has even suffered the sacrifice of the lives of its countless research workers. Sensing the necessity of adequate hygienic facilities, the S.M.R. has undertaken to maintain 32 well equipped hospitals and 17 clinics besides despatching 29 physicians to the various points where railways have been constructed.

The Dairen Hospital, which was constructed and equipped by the South Manchuria Railway Company at the cost of ¥8,000,000, is one of the best hospitals in the Far East. It is an independent organization under the Company's supervision.

In order to make the hygienic facilities thorough, the Company has taken upon its shoulders the maintenance of bacteriological examination stations in six towns. Trained nurses are stationed in sixteen localities where no medical facilities are to be found and these are despatched upon regular visitation routes. The largest and the most outstanding of these hygienic facilities is the Hygienic Institute which has been founded for researches in the maintenance of health and the manufacture of various sera and vaccines for the prevention of diseases peculiar to Manchoukuo. The authorities concerned have been especially active and energetic in finding preventive measures, and already the bubonic plague which long existed in Manchuria has been almost completely conquered. The dreaded typhus and dysentery, too, have been controlled and what is more, energies are bent towards the extermination of contagious diseases among the live-stock.

Table 10. Patients Treated in Kwantung Leased Territory

	Kwantung Government Hospital at Port Arthur	Isolation Hospital at Port Arthur	Isolation Hospital at Dairen	Women's Hospital at Port Arthur	Women's Hospital at Dairen	District Physicians	Total
1911.....	117,299	—	—	—	—	31,334	148,633
1916.....	145,823	—	—	—	—	60,656	206,479
1921.....	136,018	2,783	20,207	8,961	50,086	193,252	411,307
1926.....	153,830	10,004	34,750	7,180	31,210	136,988	373,962
1929.....	150,756	3,185	17,221	8,002	25,738	95,945	302,847
1930.....	174,188	3,662	14,882	6,231	23,339	104,655	326,957
1932.....	162,775	3,797	13,727	4,476	22,207	131,107	338,089
1933.....	138,478	3,632	21,227	6,185	26,878	139,421	335,822
1934.....	155,234	4,098	30,496	9,156	33,063	121,829	353,876
1935.....	146,326	4,453	25,227	8,278	51,564	136,025	371,873

Table 11. Number of Patients Treated at S. M. R. Hospitals

	No. of Patients treated			Accounts (Yen)		
	Inpatients	Outpatients	Total	Income	Expenses	Deficit met by Co.
1907-08.....	31,704	230,863	262,272	41,352	185,473	144,131
1912-13.....	214,917	489,803	704,720	418,834	643,146	224,312
1917-18.....	438,313	949,013	1,387,326	973,215	1,152,272	179,057
1922-23.....	462,633	1,226,709	1,689,342	2,309,796	2,979,901	670,105
1927-28.....	695,432	1,700,295	2,401,727	3,702,898	4,462,218	759,320
1928-29.....	719,029	1,664,789	2,383,818	3,892,974	4,269,074	376,100
1929-30.....	742,280	1,632,127	2,374,407	4,042,410	4,240,402	197,992
1930-31.....	693,805	1,566,234	2,260,039	3,758,270	3,910,304	152,034
1932-33.....	595,504	1,155,360	1,751,864	2,109,959	1,876,143	*133,816
1933-34.....	540,457	1,123,189	1,663,646	2,600,637	2,135,961	*464,676
1934-35.....	693,000	1,578,000	2,271,000	3,942,000	3,092,000	*850,000

Note:—Surplus.

Scarlet Fever.—In Manchoukuo scarlet fever is regarded as an endemic diseases and is one of the five principal contagious diseases attacking children. In 1925 both the morbidity and mortality among the Japanese in Manchuria from this diseases were found to be the highest in the world. In view of the urgent necessity of checking and exterminating this malignant epidemic, the authorities concerned in 1926 organized a scarlet fever prevention committee, on which the research agencies throughout the country were represented, and entrusted to it the duty of scarlet fever. Research which proved highly fruitful was carried out at various places. The Hygienic Institute made a comparative study of many strains of hemolytic streptococcus from which it selected a strain producing the most potent toxin, and manufactured from this toxin an efficient, purified scarlet fever toxoid and a potent antitoxin. For the past several years children attending kindergartens and schools along the S. M. R. lines have been inoculated with scarlet fever toxoid, with remarkable results and scarlet fever which was dreaded ten years ago is thus today no longer feared by the public.

Glanders.—This epidemic is prevalent throughout the country and it is estimated that as many as 30 per cent. of the horses in North Manchuria are infected with this disease. Thanks to the preventive work being carried out by the S. M. R. Veterinary Institute in cooperation with the Glanders Investigation Institute recently founded by the Manchoukuo Government, it is believed that it will not be long before this terrible form of animal epidemic will be wiped out from Manchoukuo.

Methods for Combatting Diseases

Plague.—Manchuria is one of the worst plague-infested countries of the world and no less than ¥2,000,000 has been spent by the South Manchuria Railway Company alone for the prevention of this dreaded epidemic. The first out-

break of the plague occurred in 1910-11 and, since then, the country has been visited by it ten times, with the loss of tens of thousands of lives. Through the efforts of the research workers of the Hygienic Institute in Dairen, it was discovered in 1928 that the western part of Manchuria near Taonan, Chengchiatun and Tungliao and adjoining Mongolia was the plague endemic area. This significant discovery was followed by the further revelation that the strange, acute contagious disease greatly feared by Manchurians and Mongols was in reality the plague.

For the prevention and cure of the plague, the Institute invented an efficient vaccine made from the residue of the plague bacillus after the bacterial cell substance had been extracted from it. In 1936 some 300,000 persons in the plague-infested districts in Manchoukuo were inoculated with this vaccine and thus many lives were saved. In 1934 plague investigation offices were established at Tungliao and Halahai.

Endemic and Epidemic Typhus.—Epidemic typhus has frequently broken out in all parts of the country and is one of the dreaded contagious diseases in Manchoukuo. An eruptive fever somewhat similar to epidemic typhus has also since early times been known in the country. This disease is endemic and is popularly known as Manchuria fever or typhoid. The Hygienic Institute has devoted much time to the study of both of these diseases, but it was not until 1929 after exhaustive effort that the causative agent of the latter was finally discovered and named *Rickettsia manchuriae*.

Smallpox.—Unlike smallpox in Japan, this epidemic in Manchoukuo is practically prevalent all the year round. Up till the Manchurian Incident, the demand for smallpox vaccine was very small, only about 100,000 persons being vaccinated yearly, but since then it has markedly increased, and the Hygienic Institute at present supplies enough vaccine for inoculating 4,000,000 persons. The Hygienic Technical Institute, founded

in 1936 by the Manchoukuo Government, is also actively engaged in smallpox preventive work, vaccinating several million persons annually. Through the active cooperation of these two institutions, it is hoped to rid Manchoukuo of smallpox before long.

In addition to the above-mentioned contagious diseases, studies are being carried on for the prevention of hydrophobia, diphtheria, typhoid fever, anthrax and dysentery.

Nutrition

The food and nutrition problem in Manchoukuo is receiving increasing attention because of its close relation to public health. Manchoukuo's peculiar natural and social environment and the marked difference in the characteristics of the various races inhabiting the country give an added complexity to the nutrition problem. Since 1929 the Hygienic Institute in Dairen has been investigating the food resources in Manchuria and studying the nutritive values of the staple articles of food of the Manchurians, Mongols and Japanese. It has been making a comparative study of metabolism in the Japanese and Manchou races and endeavouring to improve their diets by discovering for each the most suitable nutritive foodstuffs, taking into consideration the physical and social conditions of each race.

Furthermore, the Hygienic Institute has made a study of the children in Manchoukuo, especially Japanese, from the standpoint of dietetics and discovered that the constitutional defects and weaknesses of the latter, such as slenderness, rickety constitution, anaemia, tooth-carries, and myopia (near-sightedness), which make them easily susceptible to disease, are chiefly due to the scarcity of mineral substances and vitamins within their system. This in turn is caused by the restricted production and consumption of such indispensable articles of food as vegetables, fruits, milk and marine products, owing to natural and economic factors. In view of this factor the Hygienic Institute, for the past several years, has devoted much attention to improving the nutrition of the school children in Dairen and the S.M.R. Zone, especially giving nutritious food to children at school.

Environmental Hygiene

In the field of environmental hygiene, the Hygienic Institute, efforts have been directed to the study of the housing problem, dust and smoke in cities, and water. For studying the housing problem, the Institute built within its compound twenty houses with various construction materials and studied the relation of the walls and roofs to the preservation of heat and

to temperature and ventilation. The results of its investigation have been utilized in the construction of residences for S.M.R. employees, and in the improvement of farm-houses.

As regards the dust and smoke problem in cities, the City of Dairen, on the basis of investigations conducted by the Hygienic Institute during the past two years, has enacted Smoke Prevention Regulations and is doing everything in its power to purge the city of smoke and dust that are a menace to public health. Similar work is also being carried on in the other cities of Manchoukuo. Since the founding of Manchoukuo, the Hygienic Institute has been conducting an examination of water in all parts of Manchoukuo and also studying ways of purifying bad water. In the struma-infested Jehol district, the Institute has discovered that the prevalence of the disease is due to the lack of iodine in the system of the local population. For the extermination of this malady the Institute is supplying the inhabitants with iodine tablets, and also putting iodine into the water mains and wells.

Red Cross Medical Service.—The Japan Red Cross Society also is active in Manchoukuo. During the Russo-Japanese War, the Society engaged in relief work and medical treatment of the Chinese refugees. After the war the Chinese, the Russians and the Japanese in Manchuria, interested in the work of the Society, welcomed the establishment of its branch hospitals, of which there are now fifteen branch hospitals and thirteen sub-branches in different districts. The members of the Society in Manchoukuo gradually increase to 86,788 consisting of 43,072 Japanese, 43,716 Manchus, Russians and other nationals, as at the end of 1930. The Society also engages in preventive measures and propaganda against tuberculosis, and sends its physicians to the interior, where medical treatment is given free of charge to the poor. At times of political disturbance, such as the commotion at Fenghuangcheng in 1912, the Chengchiatung incident in 1916, the first and second Mukden-Chihli collisions respectively in 1922 and 1924, Kuo Sung-ling rebellion in 1925, the Sino-Soviet dispute in 1929, and the Manchurian Incident in 1931, the Society extended the most liberal medical treatment and aid to the calamity-stricken troops and refugees. The Red Cross Society branches of Japan in Manchoukuo to-day have ten hospital equipments in Mukden, Dairen, Liaoyang, Chinchow, Chengchiatun, Tunghua and Imienpo.

Those who received medical treatment and other aid from the Society in Manchoukuo up to the end of December, 1930, numbered over

1,230,000. The following table shows the number of members of the Society and persons who have received medical treatment in recent years:—

Table 12. Persons Treated by the Red Cross

Year	Members of the Society			Persons who received medical treatment by Society		
	Japanese	Chinese	Total	Japanese	Chinese	Total
1925	36,771	33,789	70,560	9,258	20,105	29,363
1926	40,389	37,689	78,078	11,797	19,527	28,325
1927	41,749	38,429	80,178	4,902	19,108	24,010
1928	42,180	40,932	83,112	4,151	10,835	14,986
1929	42,534	42,792	85,326	9,430	38,544	47,974
1930	43,072	43,716	86,788	1,466	19,297	20,763

Foreign Medical Institutions.—There are some fifteen medical institutions operated by foreign missions in Manchoukuo, of which the Sheng-ching Hospital established by Dr. Dugald Christie of the Scottish Missionary Society in 1882 is one of the most noted institutions of its kind. Some 11 hospitals are operated by the British, two by the Danish, one by the Canadians and one by the French.

Medical Schools

There are five medical schools in Manchoukuo. These are a medical school attached to the Kirin National Hospital, the Harbin Medical

School, the Manchu Medical University (founded in 1919) under the management of the S.M.R. Co., the Liaonin Medical school under the management of an English mission, founded in 1910 and the Mukden Tungshan Medical School. The medical school attached to the Kirin National Hospital was formerly known as the Kirin Medical School. In 1935 it enrolled over 90 students and contemplates sending out fifty graduates a year commencing 1937. The Harbin Medical school enrolls a little over 100 students and sends out about 20 a year. The number of graduates of these medical schools are given below:—

Table 13. Number of Graduates of Medical Schools (1935)

Name of School	No. of Graduates	Course of Study	Year Established
Medical School Attached to the National Hospital	140	4	1934
Harbin Medical School	164	4	1926
Manchu Medical University	941	7	1922
Mukden Medical School	250	5	1912
Military Surgeon School (Harbin)	30	..	....
Harbin Echiao 1st Dental School	500	2.5	1926
Harbin Echiao 2nd Dental School	321	2.5	1929

Medical Practitioners, Dentists, Pharmacists, and Midwives

The number of medical practitioners, dentists, midwives, pharmacists, and druggist as at the end of December, 1935 according to the returns of the Department of Civil Administration is as follows:—

Table 14. No. of Dentists, Midwives, etc. (End of 1935)

Province	Dentists	Midwives	Pharmacists	Druggists
Fengtien	204	1,320	719	313
Jehol	19	940	122	14
Antung	50	576	126	102
Tunghua	8	215	334	168
Chinchow	8	215	334	168
Total	281	3,051	1,301	597

Opium Smoking.—The opium smoking habit dates back to ancient times in Manchoukuo and is deeply rooted in the daily life of the people. Ever since the founding of the country, the

Government have been engrossed with the eradication of this evil habit. By the general condition of the people, the authorities have found it advisable to prohibit the practice not immediately but gradually. Thus, while allowing the adult addicts to continue their habit by considering the drug as a sort of medicine to them, the Government have instituted a system for the relief of the addicts. The Government have also promulgated the Opium Law and Regulations for its enforcement and the Organization of the Opium Addict Infirmary. The six essential points regarding the Law Governing the Examination of Opium in Private Possession and Regulations Encouraging the Examination and Seizure of Illegal Opium are enumerated hereunder:

1. Officials of the Monopoly Bureau shall arrest any person deemed to have violated the provisions of the Opium Law and shall

seize any opium and opium-smoking instruments found in his possession.

2. Officials of the Monopoly Bureau may conduct a search in case any person is suspected of having violated the provisions of the Opium Law, and may examine any such person or witness if it is deemed necessary.
3. In case officials of the Salt Administration or the Maritime Customs Service or revenue officers discover, in the course of execution of their duties, any person suspected of having violated the provisions of the Opium Law, they may act as an official of the Monopoly Bureau would in such cases.
4. Opium which is involved in any case of violation of the provisions of the Opium Law, or opium whose owner is unknown or opium, the whereabouts of whose owner cannot be traced, shall be called "ssu-tu" or illegal opium. Any person who informs the authorities concerned of the possession of "ssu-tu" by any individual, or any official concerned who conducts an examination and obtains seizure of "ssu-tu" shall be given a cash reward.
5. The seized "ssu-tu" shall be appraised by officials of the Monopoly Bureau, and a sum equivalent to six-tenths of the balance left after reducing storage, freight, and other necessary expenses from the appraised value shall be used for the payment of the cash reward.
6. A sum equivalent to seven-tenths of the entire cash reward shall be awarded the person who informs the authorities concerned of the possession of "ssu-tu" by any individual and a sum equivalent to three-tenths of the same shall be awarded the officials who engage in the examination and seizure of "ssu-tu".

Designation of Licensed Traders.—In pursuing the opium policy enumerated above it is supreme to restrict and control the production of the drug and its supply to the people and give full scope to the function relieving the addicts. As a step towards achieving these purposes, the opium monopoly system has been instituted. Opium can be supplied to the people only through the licensed trader to whom the drug is supplied by the Government. It is in the power of the Governors of the respective provinces to designate these licensed traders. The number of the licensed opium traders as in December, 1935 was as follows:—

Table 15. Number of Licensed Traders (End of 1935)

Jurisdiction	No. of Licensed
Kirin Province	187
Lungkiang	124
Heiho	33
Sankiang	80
Pinkiang	211
Mutankiang	36
Chientao	96
Antung	573
Tunghua	135
Fengtien	124
Chinchow	21
Jehol	47
Hsingan	59
Hsinking Special Municipality	45
Harbin Special Municipality	1,771
North Manchuria Special Districts	1,180
Total	1,180
Total for end of 1934	1,180

Issue of Certificates to Addicts.—Opium smoking certificates are given to the addicts. Only the holders of these certificates can obtain opium from the licensed traders and smoke it. So the number of opium addicts can be gathered from that of the holders of the certificates. The authorities are endeavouring to control secret smoking by spreading the issue of these certificates throughout the country. The issue of the certificates by jurisdiction is as follows.

Table 16. Issue of Opium Smoking Certificates By Jurisdiction (1935)

Jurisdiction	No. of Licensed
Kirin Province	42,141
Lungkiang	23,397
Heiho	4,299
Sankiang	4,341
Pinkiang	23,415
Mutankiang	4,445
Chientao	5,384
Antung	52,671
Tunghua	11,891
Fengtien	23,424
Chinchow	17,221
Hsinking Special Municipality and Changchun-hsien	4,312
Harbin Special Municipality	225
North Manchuria Special Districts	217,066
Hsingan North Province	38,537
Total	38,537
Total for Nov., 1934	38,537

Control of Poppy Cultivation.—For the purpose of controlling the domestic production of opium the Opium Monopoly Office designates every year the districts for poppy cultivation and the area of the farm according to domestic requirements. The area under poppy heads was 318,000 se in 1933 and 1,068,100 se in 1934.

Relief of Addicts.—The relief of the addicts together with the prevention of the growth of new addicts constitutes the premier object of the Opium Law. The issue of the opium smok-

ing certificate to the addict is only a negative way of achieving the purpose. Therefore, on November 16, 1933 the Government promulgated the organization of the infirmary as stated already and simultaneously established opium infirmaries and their branches in ten places throughout the whole country.

Results of Relief.—The number of addicts is put roughly at 900,000, or about one-fourtyth of the population. Adding thereto chronic smokers, about 210,000 in number, the total is 1,110,000. Only about one-third of the addicts are possible of being cured, the rest being all but hopeless.

Table 17. Number of Addicts Cared For at Narcotic Stations (1935)

	Fixed Capacity of Addicts	No. of Admitted		No. of Cured		Ratio of Cured		Average Days Patient Under Treatment	
		Opium Addicts	Narcotic Addicts	Opium Addicts	Narcotic Addicts	Opium Addicts	Narcotic Addicts	Opium Addicts	Narcotic Addicts
Hsinking	50	67	382	58	346	86.0%	90.5%	52	31
Kirin	35	96	630	92	595	96.7%	98.6%	29	32
Taitsihar	35	332	71	317	69	96.1%	97.2%	34	27
Harbin	85	513	278	484	272	94.3%	97.8%	26	25
Antung	10	162	83	153	86	94.0%	97.0%	22	24
Fengtien	100	83	919	71	838	84.0%	91.2%	35	34
Yingkow	10	119	61	116	57	97.4%	93.4%	27	26
Chengteh	35	142	122	136	113	94.1%	92.9%	35	25
Shanhaikwan	10	4	14	4	14	100.0%	82.3%	36	24
Manchouli	10	50	...	44	...	89.7%	...	30	...
Total	330	1,568	2,565	1,475	2,290	94.0%	94.0%	33	25
Total for 1934	330	783	2,649	723	2,409	91.0%	90.0%	31	31

New Medical College

For the improvement of national health, and especially for the successful realization of the ten-year anti-narcotics plan which was launched in 1937 in order to eradicate narcotic evils, Manchoukuo is in need of a greater number of

efficient doctors. Such being the case, the government decided in 1938 to raise the medical school at Hsinking to college standing. The construction of the building for the new college, costing MY339,200, was to start in the spring of 1938 and was expected to be completed in 1939.

Table Nos.: 1-9 a, 10-11 b, 12 c, 13-17 a.

Key: a—Department of Civil Affairs.
b—Kwantung Bureau.
c—Red Cross of Japan.

CHAPTER XXIV PRINCIPAL CITIES

(Including Kwantung Leased Territory and former S.M.R. Zone)

Hsinking

Location.—Being the northern terminus of the S.M.R. main line, Hsinking, the Capital of Manchoukuo, is located at a point 43° 55' N. Lat. and 701.4 kilometers north of Dairen. The total area of the city, composed of the walled town, the mart, the S.M.R. Zone and Kuanchengtzu, is put at 21.4 square kilometers. After the completion, however, of the official city reconstruction programme, its area will be just 200 square kilometers.

Climate.—The climate of the city nearly resembles that of Tokyo, July being the hottest month of the year. The temperature begins to fall about the middle of August, it sometimes declining as low as 30° below zero in winter.

Population.—The population of Hsinking was returned at 334,692 as at the end of January 1938, of which 261,691 were Manchoukuoans, 65,235 Japanese, 7,032 Koreans and 734 others. Compared with figures of 1932, it shows a gain of more than 200% in total, and an increase of 300% in the number of Japanese residents.

History.—Hsinking, formerly called Changchun, is a relatively new city, having a history of only 100 years or so. In old times, this area, it is said, formed a vast pasturage for Mongolians. Later under the Han dynasty of China, Chinese farmers immigrated there and set up a small town called Changchunpo at a point 10 Chinese miles north of the present Hsinking. Under the Ching dynasty, the town was selected as the seat of local government. By virtue of the Sino-Russian Treaty of 1899, Czarist Russia extended the defunct Chinese Eastern Railway southward to Port Arthur and Dairen, following which the town began suddenly to develop as the local centre. Simultaneously with the creation of Manchoukuo, it was designated as the capital and its name was changed from Changchun to Hsinking.

Principal Official Institutions.—(Manchoukuo side): Imperial Palace, Department of Imperial Household, Privy Council, Legislative Council (Yuan), Council of State Affairs, Supreme Court, Supreme Procurate, High Court, High Procurate, State Secretariat, General Affairs Board, Bureau of Legislation, Department of

People's Welfare, Foreign Office, Department of Public Peace, Department of Economics, Department of Industry, Department of Communications, Department of Justice, Central Bank of Manchou, Industrial Bank of Manchou. (Japanese side): Headquarters of the Kwantung Army, Embassy, Consulate-General.

New City Planning.—As a result of the five year construction plan which was completed in 1937 the city of Hsinking has been greatly transformed. When the grandiose plan projected in 1932 is completed the city will cover an area of 200 square kilometers. The city converges at Tatung Circle from which broad highways radiate in four directions. The private and public buildings that were erected by the end of 1937 numbered 6,700, costing MY60,000,000. If roads, water supply system, and other public utilities are added to this sum, the total cost is estimated to be MY200,000,000.

The network of roads completed up to December, 1937 covered an area of 5,605,885 square meters, of which 1,390,813 square meters were paved. Their total length was 312 kilometers, which is equal to the distance between Hsinking and Mukden.

In that section of the Tatung Avenue from Tatung Circle north to its junction with the Chuo-dori the greater efforts in construction from 1932 to 1938 were centered. Much attention has been paid to parks. Five large parks, Tatung, Paishan, Mutan, Shuntien and Hoshun have been laid out, while another, Huanglung, is in process of completion. Apart from these parks, there is the huge Hsinking Stadium at Nanling. Covering an area of 1,500,000 square meters, the sports center, upon its completion will become one of the largest and best equipped stadiums in Asia. Compared to foreign municipalities, Hsinking has set aside 7% of its city area for parks, playgrounds and stadiums, against 2% of Berlin, 2.8% of Tokyo, 1.4% of Washington, and 9% of London.

Hsinking possesses the best water supply system in Manchoukuo. Good pure water comes from the Chingyuehtan reservoir in the suburbs of the city. Covering an area of 78 square kilometers, the reservoir utilizes water from a tributary of the Itung River, and enough water

is stored to supply a population of half a million. Even if the population should increase to one million, there will be no fear of water shortage as two other water sources are available, namely, the Yinma River and artesian well potentialities.

Taking all factors into consideration, Hsinking is not intended for an industrial city. In fact, it is expected to become a light industrial center. Industrial plants will be centered in the northern section of Hsinking, but in the future the South Station area will perhaps become the central industrial district.

Educational Institutions.—(Former S. M. R. Zone): Hsinking Commercial School, 2 Girls' High Schools, 5 Primary Schools, Hsinking Public School, Hsinking Girls' Vocational School, Hsinking Industrial Supplementary School, Hsinking Kindergarten, Hsinking Ordinary School, Hsinking Library. (Walled town): 1 normal school, 1 girls' school, 1 middle school, 16 primary schools, Tatung College (Daido Gakuin, a college under Japanese management).

Communications.—Besides being the northern terminus of the S.M.R. main line, Hsinking is the starting point of the Hsinking-Tumen railway, the Hsinking-Harbin Line and the Hsinking-Paichengtzu Line. Further, the North Manchuria Railway, formerly called the C. E. R., connects with the S.M.R. main line at this city. Regular omnibus services run from the city to Itung, Kirin province, Shuangyang, Kirin province, and Nungan, Fengtien province. Plans are under way to open new omnibus services to many other towns in the vicinity. Regular air services, managed by the Manchurian Air Transport Company, are also available for Dairen (daily), Harbin, Tsitsihar and Tumen.

Telephony, Telegraphy and Radio Broadcasting.—Postal, telegraphic and telephonic matters are under the separate management of the Manchoukuo Government and the Government of the Kwantung Leased Territory. A direct Japan-Manchoukuo telephonic service was opened to the public on August 1, 1934. The Hsinking Radio Broadcasting Station commenced operation on March 10, 1933.

Principal Products.—The city is a local distributing center of soy beans, kaoliang, millet, wheat, maize, rice, vegetables, lumber and livestock. Matches, bean oil, bean cakes, wheat flour, tobaccos, ceramics and cotton piece-goods are the main products of the city.

Vernacular Paper and News Agencies.—Manchoukuo News Agency, Hsinking Nippo (Japanese language), Hsinking Nichi Nichi Shimbun (Japanese language), Tatung Pao (Manchurian language).

Shrines and Temples.—Hsinking Shrine, Hishashi Honganji temple, Nishi Honganji temple, Changchun temple, Taishoji temple, Kongoji temple, Kyo-o-ji temple, Myohoji temple (Nichiren sect of Buddhism), Tairiku (continental) Church, Changchun branch of the Japan Holiness Church, Japan Christian Church, preaching hall of the Konko Teaching (Shintoism).

Principal Public Facilities.—City waterworks and sewage system, parks, horse race course, golf links, meteorological observatory, city hall, botanical garden, public playgrounds, slaughterhouses, garbage dumps (either completed or under construction).

Harbin

Location.—Situated on the right bank of the Sungari river, Harbin is 795.6 kilometers west of Vladivostok, 951 north of Dairen and 240 north of Hsinking.

Climate.—Highly continental, the climate is subject to severe changes in summer and winter. Because rainfall is scarce, the atmosphere continues considerably arid throughout the year with a surprisingly long spell of fine days. The mercury declines often to 40° below zero in winter and rises to 38° in summer.

Population.—The population of the city as at the end of October, 1937, was returned at 469,770 comprising 102,469 households and including 43,373 Japanese and Koreans and 25,641 white Russians.

History.—Harbin or as it is often called Pinking was only a small village between 30 and 40 years ago. Following the installation of the Chinese Eastern Railway, this village developed by leaps and bounds as the central base of Czarist activities in Manchuria. Because the city was planned along the lines of Moscow, it smacks strongly of a Russian city. The city is divided into six sections, namely, the new town, the mart, Machiakou, Chuanchiatien and the Russian town. Following the creation on December 1, 1934, of Pinking Province, Harbin was designated as the seat of the provincial government.

Vernacular Papers.—(Japanese language): Harbin Nichi Nichi Shimbun, Harbin Shimbun, Harbin Staple Produce News Agency. (Manchurian language): Kuochi Hsieh Pao, Tapei Hsin Pao, Harbin Kung Pao, Pinking Jih Pao, Wu Pao. (Foreign): 5 Russian-language and 2 English language (Harbin Daily New and Harbin Observer).

Communications.—Railway: (1) Pingsui Line, (2) the Lapin Line, (3) Pinpei Line, (4) Pinking Line, (5) Kingpin Line. Marine transport:

Steamships and junks plying between the city and all important towns facing the Sungari river and its diversified tributaries. Air services: Regular services, operated by the Manchurian Air Transport Company, with Manchouli via Tsitsihar and with Dairen and Shingishu (Korea) via Hsinking and Mukden. Means of city communications: Tramcars, automobiles, omnibuses, rickshas and sleds (in winter).

Principal Products.—Soya beans, bean oil, bean-cake, wheat flour, tobaccos, cotton piecegoods, furs, leather, beer, beet sugar, veneer, lumber, woollen piecegoods, soap, candles, jewelry, confectionary.

Temple and Churches.—Higashi Honganji temple, Greek Orthodox Church, Jewish Church, Mohammedan Church.

Kirin

Location.—An important city facing the Sungari river, Kirin is 447.6 kilometers from Mukden, 400.3 from Tumen and 127.7 from Hsinking.

History.—Kirin is the capital of Kirin province, its original name being Kirinniaola. It has been the seat of prefectural government for the past 260 years. In 1929, when Manchuria was still under the militarist regime of the Changs, its name was changed to Yenki, but following the creation of Manchoukuo, its name was officially resumed.

Population.—The total number of citizens at the end of October, 1937, was 124,132 including 13,300 Japanese.

Communications.—The city is the terminus of three railways, that is, the Kirin-Changchun (128 kilometers), Kirin-Hailun (158 kilometers) and Kirin-Tunhua lines. River transport facilities are also available. Automobiles, carriages and rickshas are the principal means of communications within the city.

Vernacular Papers.—(Japanese language): Shoko Shimbun, Kirin Jiho. (Manchou language): Kirin Jih Pao, Tung Sheng Jih Pao, Ta Kirin.

Principal Products.—Wood, sleepers, mine-pillars, match, match sticks, soya beans, red beans, millet, tobaccos, hemp, rice, carrot, medicinal herbs, honey, leather, furs, farm implements, charcoal, chinaware, fish.

Shrines and Temples.—(Japanese side): Higashi Honganji temple, Nishi Honganji temple, preaching post of the Nichiren Sect of Buddhism, Tenri church. (Manchoukuo side): Kuangchi temple, Paochenko temple, Chingchen temple, Catholic church, Christian church.

Tunhua

Location.—Situated on the left bank of the Mutankiang river, Tunhua is one of the most important towns in Kirin province, it being 132 Chinese miles southeast of Kirin. It is the center of the so-called Tunhua basin.

Climate.—The maximum temperature in summer is 33° C. and minimum in winter falls to 30° below zero. Although the town is geographically shielded from the atrocity of severe winds, the rainfall is relatively frequent.

Population.—At the end of December, 1936 the population of the town was 33,302, comprising 6,765 households and including 13,000 Japanese and 1,571 Koreans.

History.—This town, it is said, was the birthplace of the ancestors of the Ching dynasty of China. Originally, it was called Aotungchen, but during the latter part of the Ching dynasty, it was rechristened Tunhua. In 1882, it was designated as the seat of prefectural government. Following the opening of the Kirin-Tunhua and Kirin-Changchun railways, the town began to develop steadily.

Communications.—The town is the terminus of the Kirin Tunhua railway and the starting-point of the Tunhua-Tumen light railway.

Yenki (Chuyinglintzu)

Location.—A town along the Hsinking-Tumen railway, Yenki is 476.2 kilometers east of Hsinking and 51 kilometers from Tumen. Only eight miles north of this town is Lungchingsun, a town on the Kirin-Korean border.

History.—Formerly, the town was called Chuyinglintzu which still is commonly used by the local populace. Yenki has long been the political and economic centre of the Chientao district in competition with Lungchingsun which is the local commercial centre. In 1913, the town was designated as the seat of prefectural government, following which it began rapidly to develop along modern lines. The discovery of the Tienpaoshan mines added further to the prosperity of the town with Shantung coolies thronging the district in large numbers. With the erection of the Hsinking-Tumen line as a turning-point, Yenki further developed by leaps and bounds. Many Japanese and far more Koreans are active in this district, engaging mostly in agriculture and commerce.

Population.—The population of the town at the end of 1936 was 24,824 comprising 5,037 households and including 1,718 Japanese and 9,108 Koreans.

Principal Institutions.—(Japanese side):

Branch-consulate, branch of the consular police, garrison, residents' association, Trading Credit Co., Yenki Electric Light Co., primary schools, hospitals, branch of the Kokusai Unyu Kaisha. (Manchoukuo side): Government of Chientao province, municipal office, public safety bureau, high court, garrison headquarters, middle schools, normal school.

Communications.—The town is connected with Korea and Manchoukuo proper through the Hsinking-Tumen railway. Regular omnibus services run to Lungchingsun, Paitsaokuo and Tumen. The Tienpaoshan light railway also runs through the town.

Principal Products.—Soya beans, rice, millet, kaoliang and other cereals.

Tumen

Location.—Tumen is the southern extremity of Kirin province and faces Nanyo, Korea, across the Tumen river. It is a town set up on the delta—2.5 by 3 kilometers, which is sandwiched between two affluents of the Tumen river.

Climate.—The temperature in summer does not go up very much but in winter it falls to between 20° and 30° below zero. Rainfall is frequent.

Population.—The total number of citizens was 27,236 at the end of 1936, comprising 6,426 households, of which 3,835 represented Japanese and 21,587 Koreans.

Port Arthur (Ryojun)

Location.—The city is located on the southern tip of the Liaotung peninsula facing Weihaiwei and Chefoo on the Shantung peninsula across the Gulf of Pechili. Surrounded by mountains on all sides but one, the city is stretched out from east to west and is endowed with a good natural harbour with its entrance between the Lachawei peninsula and the Huchin mountain measuring only 330 meters.

Climate.—The climate of Port Arthur is most favourable throughout Manchuria, the average temperature being in the neighborhood of 10° C. The lowest temperature registered during 1933 was 16° 4' below zero in the month of January and the highest 35° 2' in the month of July. Because it is the southern extremity of Manchuria facing the sea, the city is popular as a summer or winter resort.

Population.—The total population of the city as at the end of October, 1937 was returned at 143,782 including 12,482 Japanese and 166 Koreans.

History.—In old times, the city was called Mashihchien and under the Chinese Sui and Tung regimes of the Middle Ages, Tulichen and Shintzukow respectively. Following the advent of the Ming dynasty, its name was changed to Lushun. In 1858 when China was ruled by Emperor Wensung, a British fleet commanded by Admiral Sir Michael Seymour seized possession of the city.

Following the construction in 1897 of a Chinese naval base there, the old Peking Government newly organized the so-called Northern Squadron under the command of Admiral Ting Ju-chang who took up his headquarters at Port Arthur. At that time, the city was commonly acknowledged as one of the five best ports in the world. During the Sino-Japanese War (1894-5), the Chinese armada of more than 30 warships under Admiral Ting and with Port Arthur and the Gulf of Pechili as its base of operation, was defeated by the Japanese fleet. After the termination of the war, the port fell under Japanese control for some time, but was finally returned to China through the Three Power Intervention.

By virtue of the so-called Cassini Treaty signed secretly between China and Czarist Russia in 1896, the latter took control of Port Arthur as its naval base of operation in the Far East. During the Russo-Japanese War, however, the port came under Japanese occupation, following which military administration was proclaimed. On September 1, 1906, the Port Arthur Civil Administration Office was inaugurated as a sequel to the abolition of military administration. With a Japanese naval depot, the city is of considerable strategic value.

Communications.—Port Arthur is connected with Dairen through the Port Arthur branch line of the S.M.R. An omnibus service is also available between the two cities along a highway. As means of marine traffic, small steamers and junks ply between the city and other ports on the Liaotung peninsula and those on the Shantung peninsula. Within the city, rickshas and automobiles are available. At the end of 1935, the number of city telephone was 902.

Principal Public Facilities.—Waterworks and sewage system; public playgrounds; sea-bathing places; youth training institutes; two parks; one light-house; crematoria; garbage dumps; fish and vegetable markets; nurseries; five official and private hospitals.

Principal Products.—Vegetables, peaches, pears, silk yarns and piece goods, salt (approximately 100,000,000 lbs. a year) and poultry.

Shrines and Temples.—The Paijushan Char-

nel-house; branch of Izumo shrine; Nishi and Higashi Honganji, Eigenji, Ryushinji, Myoshinji, and Nishin temples.

Dairen (Dalny)

Location.—Dairen is also situated on the southern tip of the Liaotung peninsula, lying at a point 36° 56' N. Lat. and 120° 36' E. Long. Latitudinally, its position is similar to that of Tsuruoka, a city in Yamagata prefecture, Japan, and longitudinally, Taikoku, the Formosan capital. To the south of the city rise Mt. Nanshan and Mt. Lushan. In the north it faces the Bay of Dairen.

Climate.—The climatic condition of the city is better than any other parts except Port Arthur, the temperature averaging 10° C. July is the hottest month of the year with an average temperature of 28° 9' and January the coldest with an average temperature of 10° 4' below the zero.

Population.—The total population of the city as at the end of October, 1937 was 551,160 of which 156,220 were Japanese and 3,504 Koreans.

History.—Formerly, Dairen was only a small fishing village, named Chingniwa. When the allied troops of Britain and France advanced on North China in 1858, the British fleet in China waters occupied this bay as its base of operation and renamed it Victoria Bay. This heralded the introduction of Western civilization to Dairen.

Later, Marshal Li Hung-chang, Governor-General of Chihli province, was transferred to Shantung province, and erected fortresses and piers at this point and turned the city into a naval base. After the Sino-Japanese War, Kwantung province was ceded to Japan by dint of the Shimonoseki Treaty, but following the Three Power Intervention Japan returned the territory to China.

In 1898, Czarist Russia leased this port and managed it along the lines of modern city planning after renaming it Dalny. During the Russo-Japanese War, the Japanese Army occupied it. On the anniversary in 1905 of the founding of the Japanese Empire, the headquarters of the Japanese Army operating in Manchuria against the Czarist troops changed the name of the harbour from Dalny to Dairen. In June, the same year, the Kwantung Civil Administration Office was organized under the direct supervision of the Army. The following year witnessed the establishment of the Government of the Kwantung Leased Territory. Simultaneously, the Dairen Civil Administration Office was brought into being. Since that time, Dairen has played

an important role in Oriental trade as the only free port.

Principal Public Facilities and Schools.—Waterworks and sewage system; 5 sea-bathing places; 3 middle schools; 7 girls' higher schools; one technical school; 3 commercial schools; 17 primary schools; 5 Kogakudo; 4 youth training institutes; 3 nurseries; 5 municipal markets; municipal apartment houses; public pawnshops; municipal employment offices; 6 parks; slaughterhouses; 2 crematories; garbage dumps and 1 light-house.

Communications and Traffic.—The S. M. R. main line starts at Dairen. The city is 650 nautical miles from Moji (Japan), 530 from Shanghai and 247 from Tientsin. An omnibus service also connects the city with Dairen. Within the city, houses, tramcars, carriages and rickshas are running.

Principal Vernacular Papers.—The Manshu Nichi Nichi, Manshu Ho, Taito Nippo, Kanto Ho and the Manchurian Daily News (English).

Chinchou

History.—Chinchou is the oldest of all towns in Manchuria. It is said that its creation antedates the history of modern Manchuria, but historians trace back its advent to the Liao era of China. Because of its antiquated origin, the town is characterized by the dignity and composure which the other towns of Manchoukuo lack, and is blessed with scenic beauty. As it is situated in relatively close proximity to Dairen, the town is frequented by Japanese holiday-makers.

With various modern enterprises developed there in recent years, Chinchou is gradually assuming the dimensions of an industrial city. From the point of view of communication, it is quite important as the starting-point of the Chinfu (Chinchou-Chengtzutung) Railway. The town is also famous for a scene of fierce fighting during the Sino-Japanese and Russo-Japanese Wars.

When the Kwantung Territory was leased by Japan after the end of the Russo-Japanese War, the Chinchou Military Administration Office created during the war was abolished, followed by the proclamation on May 18, 1905, of civil administration.

Population.—The total number of citizens as at the end of October, 1937, was 136,319 including 2,713 Japanese subjects.

Communications.—The S.M.R. main line runs through the town from south to north. The town is the starting-point of the Chinfu railway. It also is connected with Dairen and Pulantien

through regular omnibus services managed by the South Manchuria Electric Company.

Principal Products.—Vegetables, grapes, pears, apricots, cocoon raising, stock-raising and mining.

Pulantien

Location.—Pulantien is the northernmost town of Kwantung Leased Territory.

History.—It is said that the town derives its name from the Mongolian language. Its creation dates as far back as the Ming dynasty of China. Relatively small though it is, the town is the center of economic activity in the locality.

Population.—Official statistics taken at the end of October, 1937, place the population of the town at 187,166 including 1,870 Japanese nationals.

Principal Institutions.—The Pulantien Civil Administration Office; post-offices; branch of the Industrial Bank of Manchou; branch of the Dai Nippon Salt Industry Co.; the Pulantien Electric Light Co.; parks etc.

Communications.—The town is run by the S.M.R. main line. It is quite conveniently located with omnibus services available regularly with all important towns in the vicinity.

Main Products.—Peanuts, rice, cotton, vegetables, pears, salt and mineral products including, gold, iron and manganese.

Wafangtien

Location.—A town along the main line of the S. M. R., Wafangtien is located at a point 65.2 miles from Dairen and 181.2 from Mukden. It is built up on a basin surrounded on all sides by mountains and watered by the Huitao river.

History.—When Czarist Russia held a position of predominance in Manchuria before the Russo-Japanese War, Wafangtien, along with Kungchuling and Liaoyang, was one of the three biggest towns on the southern sector of the old Chinese Eastern Railway, managed on quite a large scale with a huge locomotive depot, Russian troop barracks and other important institutions. The town still is as important for the S. M. R. as it was for the Czarist Chinese Eastern Railway.

Situated just in the heart of Fu hsien (county), it is within easy access from all other parts of the prefecture. This accounts for the fact that just before the outbreak of the Manchurian Incident all the prefectural government offices of the Chang military regime were moved from Fuchou to Wafangtien, adding a great deal to the geographical importance of the latter.

Population.—The total number of citizens as at the end of July, 1937, was returned at 7,358 (in the S.M.R. Zone only), comprising 1,504 households and including 2,455 Japanese.

Principal Institutions.—(Manchoukuo side): The Government of Fu hsien, police station, revenue office, chamber of commerce, post-office, agricultural association, prison. (Japanese side): Garrison, post-office, branch office of the S.M.R. Co., district procurator's office, locomotive depot, primary and other schools, kindergarten, libraries, branch of the Industrial Bank of Manchou, S.M.R. hospital, Wafangtien shrine, branch of the Higashi Honganji temple, Kyoto, Nippon-san Myohoji temple and preaching post of the Sodo sect of Buddhism.

Communications.—Wafangtien ranks among the principal towns on the S.M.R. main line. Regular omnibus services under Manchou management are in operation from the town to Pitzuwo, a port facing the Yellow Sea, and Fuchou, the former capital of Fuhsien.

Principal Products.—Apples, pears, strawberries and other kinds of fruit.

Hsiungyuehcheng

Location.—Hsiungyuehcheng is the westernmost town of the Kwantung Leased Territory, facing the Gulf of Pechili and situated at a point 110.7 miles from Dairen and 135 from Mukden by the S.M.R. main line. The creation of this walled town dates as far back as the Han dynasty of China. It is very well known as a hot spring resort. Before the Russo-Japanese War, the hot spring there had been left in their antiquated form with no modern facilities available.

In 1906 after the termination of the war, Japanese troops garrisoning there introduced modern bath-tubs, following which a number of hotels were built there. The hot springs are located along the Hsiungyueh river less than two miles to the southeast of the town. Sand-baths are in vogue there and all visitors are admitted free. Hence, in the hot seasons, hundreds of people from all parts of Manchuria throng the place daily. The hot water springs in abundance from underneath the river and its vicinity is wellnigh crystal, containing a small amount of hydrogenous sulphide and alkali. The average temperature of the water is 50° C. and is credited with a remarkable medical virtue for rheumatism, stomach and other diseases.

Population.—The population of the town, according to official statistics taken at the end of July, 1937, numbered 9,607, comprising 1,963 households and including 681 Japanese subjects.

Principal Institutions.—Post office, branch office of the S.M.R. Co., Agricultural training institute, primary schools, kindergartens, S.M.R. experimental farms, Hsiungyuehcheng Industrial Development Co., branch of the Manchuria Telegraph and Telephone Co., Hsiungyuehcheng shrine and branch of the Honganji temple (Kyoto).

Communications.—The S.M.R. main line is the sole means of communication available for the town but in spring and summer, special excursions trains are run between the town and Dairen.

Products.—Apples, pears and other kinds of fruits.

Tashihchiao

Location.—Being the pivotal point of the Liaotung peninsula, Tashihchiao adjoins three important counties, Haicheng, Yingkow and Kaiping, and across them, confronts Hsiuyen, Shuanho and Fuh sien. The town is 148.8 miles away from Dairen and 97.6 from Mukden.

Climate.—The climate is continental, the lowest temperature, however, hardly going down below 20° C. below zero and the highest hovering along the level of 30°. Rainfalls are scarce.

History.—Formerly, Tashihchiao was only a small village along the road between Yingkow and Hsiuyen. The town derives its name from the stone bridge over a river flowing in the vicinity, from which Emperor Tasung of the Chinese Tung dynasty while proceeding to Korea on a punitive expedition, it is said, was thrown off his horse into the river. The word, Ta, stands for big, shih stone and chiao a bridge.

This village suddenly developed into a brisk town following the creation by the Czarist Government of the southern line of the Chinese Eastern Railway which was provided for in the Russo-Chinese Treaty of 1898. During the 34 years which have passed since the termination of the Russo-Japanese War, the town has been modernized in a surprising measure for which the S.M.R. is primarily responsible. Prospering as it does at present, the town is the center of economic activities in the locality.

Population.—The number of citizens in the S. M. R. Zone as at the end of July, 1937, was returned at 7,252, comprising 1,456 households and including 3,459 Japanese.

Communications.—The S. M. R. main line branches off here and leads to Yingkow. Modern highways have been built to connect the town with various strategic places in the neighbourhood such as Haicheng, Hsiuyen, Wanfushuan, Shuanho, Shaling, Kaiping, Wafangtien, Newchwang and Panshan.

Principal Products.—Magnesite and other mineral products, cotton, cocoons, salt, fruits and vegetables.

Temples and Shrines.—Tashihchiao shrine, Choko Temmangu shrine, Inari shrine, Higashi Honganji temple, Banryu temple (Jodo sect of Buddhism), Catholic and Christian churches.

Anshan

Location.—Situated in the southern part of Liaoyang hsien, Fengtien province, Anshan is 192 miles to the north of Dairen whence the S.M.R. main line starts. The city covers altogether an area of 47,000,000 square meters.

Climate.—In January, the coldest month of the year, the thermometer often goes down as low as 20° C. below zero. June is the hottest month, when the temperature goes up as high as 37.5° C.

History.—The modern history of Anshan as a mining center dates back to August 1908 when a geologist of the S.M.R. Co., despatched to Anshan to investigate drinking water condition, accidentally overheard of a small hill then called "hill of iron-stone." Investigating into the matter he finally succeeded in locating a rich deposit of iron ore. Since then eleven other mining lots were discovered one after another. The total deposit of the metal is estimated at 600,000,000 metric tons. With the establishment of the Anshan Iron Works by the S.M.R. in 1917, the small village of Anshan has gradually developed. In 1931 this enterprise was obliged to suspend operations owing to the outbreak of the Manchuria Incident. In 1933 with its reorganization into the present Showa Steel Works, this small town finally entered its present stage of expansion. As the result of the abolition of extraterritoriality in December 1937, all the administrative organizations then existent were transferred to a newly organized city municipal body.

Population.—The population as at the end of August, 1937 was 41,150, comprising 8,459 households, including 19,889 Japanese and 587 Koreans.

Communications.—The S.M.R. main line is the only means of communications available for the town. The number of city telephones is 818, of which 250 are owned by the Showa Iron and Steel Works and offices of the S.M.R.

Principal Products.—Iron, steel, coal, ammonium sulphate, benzol, naphthaline, pitch.

Vernacular Paper.—The Anshan Nichi Nichi Shimbun.

Shrines and Temples.—Anshan shrine, Higashi Honganji temple, Nishi Honganji temple, preach-

ing post of the Sodo, Shingon, Nichiren sects of Buddhism and of the Tenri and Konko teachings.

Liaoyang

Location.—Liaoyang is situated at a point 206.4 miles from Dairen and 40 miles from Mukden.

History.—Liaoyang is one of the oldest towns in Manchuria, and was the seat of government under many Chinese regimes of old times. Hence, it is possible to study the history of Manchuria through that of this walled town. There are many places of historic note inside and outside the town.

While Czarist Russia held sway over Manchuria, the town was the principal point of strategic importance for Russian activities in the East as one of the three biggest towns along the southern sector of the old Chinese Eastern Railway, which was ceded to Japan after the Russo-Japanese War. Even at present, the town is of much strategic value for the Japanese Army.

Population.—The total population of the city as at the end of December, 1937 stood at 86,000 of which 5,000 were Japanese and 500 Koreans, approximately.

Vernacular Paper.—The Liaoyang Mainichi Shimbun (Japanese).

Suchiatun

Location.—Suchiatun is situated at a point 9.7 miles to the south of Mukden and 236.7 to the north of Dairen. It is an important town from the point of view of communications, because the Antung-Mukden line branches from the S.M.R. main line here.

Population.—Statistics taken at the end of July, 1937, showed that the total number of citizens was 5,395 comprising 4,084 Japanese.

Fushun

Location.—Fushun is 35 kilometers east of Mukden and is famous for its vast coal-field.

Climate.—Because it is surrounded on all sides by mountains, it is well sheltered from wind. The temperature in winter often shows 10° below zero and in summer it does not exceed 27° C.

History.—Before the Russo-Japanese War, Fushun was a sparsely populated village, but it made epochal development after the S.M.R. Co. began to exploit the coal deposits there. In 1920 when the S.M.R. commenced the so-called open-cut or surface mining method on a gigantic

scale, the company purchased the whole town, heralding the modernization of the entire district.

Population.—There are approximately 180,000 inhabitants of which about 30,000 are Japanese.

Communications.—The S. M. R. main line branches off at Suchiatun and leads to Fushun. A tramcar service is in operation connecting the coal-field with the residential quarters of the town. Omnibuses, rickshas and carriages are the means of traffic within the town. The number of telephone subscribers is 1,849.

Principal Institutions.—Waterworks and sewerage systems, S.M.R. hospital, 4 primary schools, 1 middle school, 1 girls' higher school, 4 kindergartens, 4 parks, 1 Kogakudo, 1 engineering training institute, library, cemeteries.

Principal Products.—Coal, heavy oils, ammonium sulphate, ceramics and bean cakes.

Vernacular Papers.—The Fushun Shimpo (Japanese language), the Fushun Min Pao (Manchurian language).

Shrines and Temples.—Fushun shrine, Honganji temple, preaching post of the Jodo sect of Buddhism, Zenshoji temple (Sodo sect), Henshoji temple (Shingon sect), Catholic and Christian churches.

Mukden (Fengtien)

Location.—Lying on a vast prairie embraced by the Hon river, a tributary of the Liao river Mukden is 419.6 kilometers from Shanhaikwan, 397 from Dairen, 305 from Hsinking and 276 from Antung. As one of the principal industrial cities in Manchuria, its geographical position is ideal. It covers an area of 262 square kilometers, including the S. M. R. zone which was transferred to the municipality since the abolition of extraterritoriality in December, 1937.

Climate.—The climate of the city has continental features characteristic of Manchuria. The highest temperature during 1933 was 35.7° C. registered on July 17 and the lowest 27.9° below zero registered on February 18. Humidity ranges from 20 to 60 per cent. The rainy season sets in towards the end of July and lasts a month.

Population.—The total population of the city as at the end of Sept., 1937 was returned at 709,813 comprising 142,137 households and including 85,696 Japanese and 17,343 Koreans.

History.—From old, Mukden has been the political centre of Manchuria. It was the seat of government under the Yuan, Min and Ching dynasties of China. Originally, it was called

Shenchou, but later was renamed Shenyang, Chengking and Fengtien. When Marshal Chang Hsueh-liang ruled Manchuria, the city was again named Shenyang, but after the establishment of Manchoukuo, Fengtien was restored as the name of the city. The name of the city also is quite familiar to the ears of the Japanese nations as the scene of the famous Mukden Battle during the Russo-Japanese War.

News Agency and Vernacular Papers.—(Japanese language): Hoten Shimbun, Hoten Mainichi Shimbun, Hoten Nichinichi Shimbun. (Manchurian language): Shengking Jih Pao, Taya Kung Pao, Min Pao, Fengtien Jih Pao, Tungya Jih Pao, Shengyang Shin Pao, Fengtien Telegraphic News Agency.

Educational Institutions.—(Manchoukuo side): State library, First and Second Fengtien Technological Schools, First Fengtien Commercial school, First Fengtien Middle School, Fengtien Women's Normal School, First, Second and Third Fengtien Elementary and Middle Schools, First Fengtien Girls' High School, First Fengtien Girls' Technical and Vocational School, 23 primary schools. (Japanese side): S. M. R. Mukden library, middle school attached to the Manchuria Medical University, Mukden Middle School, Mukden Girls' High School, 5 primary schools.

Communications.—Railways: (1) S.M.R. main line; (2) Antung-Mukden line; (3) Mukden-Shanhaikwan line; (4) Mukden-Kirin line. Omnibuses and taxis are running within the city. Further, regular air services, managed by the Manchuria Aeronautical Company, are available for Tsitsihar, and Shingishu, Korea.

Principal Public Facilities.—3 Japanese and 5 Manchoukuo post-offices, waterworks and sewage systems 2 parks, public playgrounds, Red-Cross hospital, museum.

Principal Products.—Cotton yarns and piecegoods, woollen yarns and piecegoods, wheat flour, tobaccos, furs and leather.

Shrines and Temples.—Mukden shrine, Mukden temple, Renkaiji temple, Higashi Honganji temple, Northern and Eastern Mausoleums, Lama temple.

Tiehling

Location.—Situated at a point 42° 25' N. Lat. and 123° 55' E. Long., Tiehling is 71.4 kilometers north of Mukden. An important town along the S.M.R. main line, it adjoins Faku hsien (county) to the west, Shenyang hsien to the south and Kaiyuan hsien to the north.

Climate.—The extremes of climate are surprisingly great, the temperature in summer

rising to 38° C. and declining to 30° below zero in winter. Rainfalls are scarce and aridity is quite high.

History.—During the Ming Dynasty of China, the city was called Tiehlingwei, but later its name was changed to Tiehling. After the outbreak of the Russo-Japanese War, the city fell under Japanese occupation on March 16, 1905. Military administration was immediately proclaimed over the city. Following the abolition in 1906 of military rule, the city was taken under the control of the Japanese Consulate-General in Mukden. By virtue of the Sino-Japanese Treaty signed in September, the same year, Tiehling was formally opened to foreign trade. The city began to make phenomenal development particularly after the railways in the vicinity were ceded by the Army to the management of the S.M.R.

Population.—The number of citizens at the end of December, 1936 was officially returned at 49,020 comprising 9,980, households and including 3,383 Japanese and 1,720 Koreans. (Number of people residing in the S.M.R. Zone within the city was 4,780 including 2,878 Japanese and 166 Koreans, comprising 998 households).

Communications.—Besides being on the S.M.R. main line, the city is connected with the principal towns of the adjoining Faku hsien through a private-owned railway which was installed in 1933 at a cost of 50,000 yuan in conformity with the railway laws of the Manchoukuo Government. A State road from Mukden also runs through this city northward to Kaiyuan. Another highway leads eastward to Tsamulin, a town on the Shenhai line, by way of Tatientzu and Paichichai. At Mafengkou, two miles west of the city, flows the Liao river, from which junks ply between Tungkiangkou and Newchwang.

Principal Products.—Cattle and cotton yarns and piecegoods.

Shrines and Temples.—Tiehling shrine, Inari shrine, Higashi Honganji temple, Nishi Honganji temple, preaching posts of the Shingon, Nichiren, Sodo and other sects of Buddhism, Christian church, two Manchu temples.

Vernacular Papers.—Tiehling Jih (Japanese language), Tiehling Kung Pao (Manchou language).

Kaiyuan

Location.—Kaiyuan is one of the principal cities along the S.M.R. main line, situated at a point 311.6 miles from Dairen, 65.2 miles from Mukden and 124.2 miles from Hsinking. Latitudinally, its position is similar to that of

Sapporo, Hekkaido island.

Climate.—The climate takes on continental features, the temperature rising to 39° C. in summer and decline to 35° below the zero point in winter.

History.—The city is divided into two sections, that is, the S.M.R. Zone and the town within the wall. The latter is nearly three miles north-east of the former. Formerly, the Railway Zone was a small village called Sunchiatai, but after the erection of the S. M. R. main line, it developed rapidly into a flourishing town as it is at present, because of its close proximity to the Tangshan district, better known as the granary of Manchuria, whence large volumes of soya beans and other farm products are shipped to other localities. In fact, it is the local distributing centre of Manchurian beans. Before the railway was constructed, these farm products were taken mainly to Tiehling for transport to Newchwang by the Liao river. The walled town has been regarded from old as one of the principal Manchurian cities, its creation reputedly dating as many years back as 3,000. Of late, however, the growing prosperity of the Railway Zone has detracted much from its economic activity.

Population.—The number of citizens within the walled town as at the end of December, 1936, was officially returned at 21,284, comprising 4,080 households. The populace residing within the Railway Zone was 20,996 comprising 3,512 households and including 2,205 Japanese and 1,897 Koreans.

Communications.—The Kaifeng light railway starts from the Railway Zone and runs through the walled town to Hsifeng. The Railway Zone also is connected with the walled town by carriages. Regular omnibus services run from the city to Tsaoasih, a town in Chingyuan hsien, and Tungkiangkou, Changtu hsien.

Shrines and Temples.—Kaiyuan shrine, Honganji temple, Kaiyuan temple (Sodo sect of Buddhism), Myohoji temple (Nichiren sect), preaching hall of the Jodo sect, Christian church.

Vernacular Papers.—Kaiyuan Shimpo, Junten Mimpo.

Ssuningchieh (Ssuningkai)

One of the principal cities along the S.M.R. main line, Ssuningchieh is situated in lat. 43° N. and long. 124° E., a point just 115 kilometers from Hsinking, 189.3 from Mukden and 585.9 from Dairen. The city is divided into the S.M.R. Zone and the new town which is peopled principally by Manchous.

History.—Before Czarist incursion into Manchuria, Ssuningchieh was a lonesome village called Imiencheng. After the erection by Russia of the now defunct Chinese Eastern Railway running through it, this village began suddenly to prosper as a town with Russian military barracks and other important buildings constructed, and its population multiplied many times. After the Russo-Japanese War, the town was placed under Japanese administration. Baked by the fertile Liao area where the larger part of Manchuria beans and other farm products are grown, Ssuningchieh naturally became their distributing center, notably after the outbreak of the European War which brought a phenomenal rise in exports of Manchurian farm produce. The erection in 1923 of the old Ssuningchieh-Taonan railway added further to the geographical importance of the town which is now commonly acknowledged as the biggest distributing center of Manchurian farm products.

Population.—The number of citizens as at the end of December, 1936, was officially returned at 49,157 comprising 9,267 households and including 7,040 Japanese and 729 Koreans.

Kungchuling (Huaiteh)

Location.—Situated at a point 43° 30' N. Lat. and 124° 48' E. Long., Kungchuling is 39 miles from Hsinking and 399 from Dairen. The city is divided into the Manchurian town, commonly called Honan, and the Railway Zone, usually called Hopai.

Climate.—The climate of the city is highly continental, the mercury rising often to 100° F. in summer and declining to 22° below zero in winter.

History.—Chronicles state that the city derived its name from the old Chinese mausoleum called Kungchuling, which is located at a point 8 Chinese li north of the city. Formerly the city was a sparsely populated village, but when the old Chinese Eastern Railway was erected by Czarist Russia, Kungchuling, along with Liaoyang and Wafangtien, was regarded as one of the three principal stations. Further, large Czarist troops were stationed in the city as of great strategic importance. In this manner, Ssuningchieh rapidly took on the dimensions of a modern city under Russian management. The city is also of historic interest, because the cession to Japan of the southern sector (now S.M.R. main line) of the C.E.R. took place here after the signing of the Portsmouth Treaty ending the Russo-Japanese War. Even at present, the city remains as important strategically for Manchoukuo as it was for Czarist Russia.

Population.—The number of citizens as at the end of July, 1937, was officially returned at 30,412 comprising 6,250 households. The number of people residing in the S.M.R. zone within the city was 14,158 including 4,955 Japanese.

Communications.—Railways: S. M. R. main line. Omnibus services: To Huaithe, Fengtien province, and Itung, Kirin province. Roads: (1) Southeast to Itung and Mopanshan, Kirin province by way of Kaoshantun, (2) South to Hsiaohushan, Kirin province, by way of Ershihchiaotzu, (3) Northeast to Pachiatzu and farther to Shungchengpu, Kirin province, by way of Heilintzu, Fengtien province, (4) North to Yangchiaotachengtzu via Chaoyangpu, Fengtien province.

Principal Public Facilities.—Parks, cemeteries, city waterworks.

Vernacular Paper.—Kungchuling Sho Ho.

Shrines and Temples.—Kungchuling shrine, Shokonsha shrine, Koyosan Daishiji temple, Higashi Honganji temple, Hokkeji temple, Koshoji temple, Busshinji temple, Ichimyoji temple, preaching post of the Tenri sect of Shintoism.

Penhsihu

Location.—A small town developed in the valley of the Huolienchai river, Penhsihu is 77 kilometers southeast of Mukden and 199 northwest of Antung.

Climate.—The temperature falls to 25° below zero in winter and rises between 28 to 33 in summer. The rainfall is small, its annual volume scarcely exceeding 972 mm.

History.—It was before the advent of the Chinese Chienlung dynasty (1726-1795) that the coalfield here began to be exploited, although on quite a primitive scale. After the termination of the Russo-Japanese War, the S.M.R. Co., started this undertaking along gigantic and modern lines, in consequence of which the town suddenly became famous as one of the principal coalfields in Manchuria.

Population.—The population of the town as at the end of December, 1936, was 34,155 comprising 6,295 households and including 3,398 Japanese and 512 Koreans.

Communications.—Lying midway between Antung and Mukden, Penhsihu is an important town along the Antung-Mukden line. On the opposite bank of the Huolienchai river is a small town called Tatzuho whence the Hsichien light railway leads to Nihsintai, a distance of 14 kilometers, and farther to Wangkungkou, Hunglienkou and Nankou where there are large coal mines.

City Telephones.—The total number of city telephone subscribers is 213.

Principal Public Facilities.—Waterworks and sewage systems, public library, public hall, fish and vegetable markets.

Principal Products.—Coal and iron.

Vernacular Papers.—Ampo Mainichi Shimbun (Japanese language).

Shrine and Temples.—Penhsihu shrine, Daitokuji temple, Higashi Honganji temple, Nishi Honganji temple, Koyasan Komyoji temple, Honkeiji temple, Ishiyamadera temple.

Antung

Location.—Antung is a city just 10 miles up the Yalu river which forms the border between Manchoukuo and Korea. Across the river it faces Shingishu a border town on the Korean side.

Climate.—In winter, the temperature often falls to between 25 and 26° below zero, the average being 1° below the zero point. In summer, it sometimes goes up to 90° F. Rainfall is scarce.

Population.—The number of citizens as at the end of December, 1937, was returned at 200,000 including 16,000 Japanese and 15,000 Koreans approximately.

History.—Only between 40 and 50 years ago, the city and vicinity formed a dreary and forlorn plain. In consequence, however, of a rapid increase in the transportation of wood and farm produce by the Yalu river, people began to inhabit this area by degrees, automatically forming a town. Following the erection of the Antung-Mukden railway, the town rapidly developed as the distributing center of lumber and farm produce from the various districts along the Yalu river.

Communications.—From this city starts the Antung-Mukden railway connecting it with the S.M.R. main line. The Korean Railway also penetrates into the city across the Yalu river. Regular steamship services run by the Osaka Shosen Kaisha, the Chosen Steamship Company and the Dairen Steamship Co., are available from the city to Japan proper, Korea and China. Highways lead to Pengwangcheng, Chiuliencheng, Tashuahan and Dairen. Regular omnibus service is maintained between Antung and Chengtzutung.

Telephony and Telegraphy.—The city telephonic service is managed by the Manchuria Telegraph and Telephone Company, the total number of subscribers being 1,219. Direct telephonic services are available between the city

and Keijo, Jinsen, Hsinking, Dairen and some principal towns in North China.

Public Facilities.—Waterworks and sewage systems, Chenkiangshan park, crematoria, cemeteries, city hall, public libraries, stock-yard, Antung Middle School, Antung Girls' High School, 2 primary schools, kindergartens, a slaughter house.

Principal Products.—Wood, wild cocoons and silk, soya beans, bean cake, bean oil, paper.

Vernacular Papers.—(Japanese language): Kokkyo Mainichi Shimbun, Antung Shimpō. (Manchou language): Tungpien Jih Pao, Hsinman Kung Pao.

Shrines and Temples.—Antung shrine, Antung Hachimangu shrine, Higashi Honganji temple, Nishi Honganji temple, So-onji temple (Sodo sect of Buddhism), Antung temple, Koyasan Korenji temple, Hokkeiji temple (Nichiren sect of Buddhism), Chenkiangshan Rinzaiji temple.

Yingkow (Newchwang)

Location.—Situated at a point 122° 14' Lat. and 40° 40' E. Long., Yingkow is an important port on the estuary of the Liao river. The area of the city is 71 square kilometers.

Climate.—The climate being highly continental, the temperature falls to 25° below zero in winter and rises to 35° C. in July, the hottest month of the year.

Population.—The total population was officially put at 155,006 at the end of 1937, comprising 26,827 households and including 4,919 Japanese and 977 Koreans.

History.—Just a century ago, the city was an uninhabited field covered with marsh-reeds. As trade by the Liao river increased, Yingkow automatically developed into the principal port of the Liao river region because of its geographical importance. The prosperity of the city suffered a setback from the opening of Dairen, but in consequence of the gradual development of modern enterprises in Manchoukuo, the city is steadily recovering its former prosperity. Its trade with China is the largest among all the ports of Manchoukuo.

Communications.—Branches of the S. M. R. main line and the Mukden-Shanhaikwan line run to Yingkow. Steamers and junks regularly ply between the city and all the important towns up the Liao river. Within the city run carriages, automobiles and omnibuses.

Principal Products.—Among the principal products of the city, salt for industrial use ranks

first, its annual output being 2,400 piculs or 64% of the total output in Manchoukuo. From reed swamps found almost everywhere in the vicinity of the city more than 3,000,000 reed sacks are produced yearly. In 1936 the Kanegafuchi Spinning Company established their reed plants there which will supply a large volume of pulp materials in the near future. Development of this particular industry is calling keen attention among the staple fibre manufacturers. Another notable industry is magnesite mining near Tashihchiao, about 22 kilometers east of the city. Magnesite deposits of these mines are estimated at about 600,000,000 metric tons, believed to be the richest in the world.

Vernacular Papers.—(Japanese language): Manshu Shimpō. (Manchou language): Yingkow Jih Pao, Yingshang Jih Pao.

Principal Public Facilities.—Waterworks, stock-yard, hospitals, libraries, parks, crematoria, kindergartens, 12 primary schools, 3 middle schools, 1 girls' vocational school, prefectural normal school, provincial fishery school.

Shrines and Temples.—Yingkow shrine, Inari shrine, Honganji temple, Zenryuji temple, Shonenji temple, Koyasan temple, Tenri church, Lengyen temple and other Manchuria temples.

Tsitsihar

Situated at a point 47° 22' N. Lat. and 123° 55' E. Long., Tsitsihar is one of the most important cities in northwestern Manchoukuo, being close to Anganki on the main railway line between Harbin and Manchouli.

Climate.—The climate is highly continental, the mercury falling in winter to 38° C. below zero, and in summer the mercury has been known to have risen to 40° C.

Population.—The population of the city was returned at 94,676 as at the end of December, 1936, comprising 19,736 households and including 6,924 Japanese, 551 Koreans.

Vernacular Papers.—(Japanese language): Kita-Manshu Nippo. (Manchou language): Heilungkiang Minpao.

Principal Public Facilities.—Higher Normal School, Girls' Higher Normal School, Middle Schools, Commercial School, Engineering School, Agricultural School, etc.

Shrines & Temples.—Tsitsihar Shrine, Higashi Honganji temple, Nishi Honganji temple, Myohoji temple, Gokokuji temple, Nichimanji temple, Koyasan temple, Tenri Church, Konko Church, etc.

CHAPTER XXV

LABOR

Influx of Chinese Labor

Historical Background.—The economic development of Manchuria may be seen in three aspects, namely, First Period or the "Hunting Age" of the Manchous, Second Period or the agricultural age of the Hans, and Third Period or the commercial and industrial age of Japanese capital. The first period is unimportant. The agricultural age of the Hans or Chinese, originated when the Manchou throne established itself in Peking and encouraged emigration of Chinese labor to the Liao river for exploitation of the soil which had been neglected for lack of labor. The stream of emigration thus started went on even after the Peking rulers put up a bar to Chinese emigration to Manchuria. From the Liao basin the Chinese agricultural workers penetrated further into the "three eastern provinces."

A strong impetus was given to the movement

of Chinese labor when the aggressive Czarist Government began to build a railway through the northern part of Manchuria. The number of Chinese laborers employed in the year 1887-1891 or the period immediately preceding the construction of the Chinese Eastern Railway stood at 1.5 million, but the census taken in 1908 gave a total of 5.7 millions, which further moved up to 8 millions in 1914, to 9 millions in 1919 and to 10.3 millions in 1925. The third period identified with Japanese enterprises in commerce and industry dawned soon after the Russo-Japanese war. New undertakings were soon under way in many directions. In the fields of mining, construction and manufacture demand for labor continuously increased until there was actually a shortage of labor. Under these circumstances, the demand had to be met by inviting Chinese laborers from beyond the wall, there being only unimportant supplies of native labor in Manchuria.

Table 1. Chinese Laborers Entering Manchuria, Classified by Callings

Year	Agriculture	Mining	Commerce	Civil Engr.	Architects	Mfg. Ind.	Transport	Total incl. other
1936.....	57,293	9,616	23,903	42,259	39,696	130,437	22,284	364,786
1937.....	50,103	12,802	31,898	48,164	32,023	89,415	16,144	323,689
1938 Jan.	406	507	1,998	75	98	2,260	363	7,095
" Feb.	1,340	1,009	2,938	2,327	746	9,816	3,064	27,089
" Mar.	4,124	5,530	4,352	32,227	4,338	20,753	4,798	87,092
" Apr.	4,906	2,407	3,198	27,549	6,615	20,732	3,426	77,116
" May	3,486	1,565	4,220	18,011	3,857	13,516	3,318	57,017
Total	14,262	11,022	16,706	80,189	15,654	67,077	14,969	255,409

Sources of Chinese Labor.—Chinese labor was supplied mainly from the provinces of Shantung, Chihli and Kiangsu. The inhabitants of these provinces were readily disposed to migrate for a three-fold reason, first, population density, second, frequent civil wars, and third, the devastating waters of the Yellow river. The population density of Shantung in 1910 was 528 per square Chinese mile, comparing with 41 in Manchuria, and the density figure in Shantung rose in 1923 to 552 against 61 in Manchuria. When Japanese industry in the railway zone stood in

need of labor, the indigenous labor, wholly taken up with agricultural work, could offer but limited numbers of men. The overflowing population of Shantung and Chihli, now called Hopei, presented itself as a source of labor supply most accessible. An exodus of labor was the result. The Chinese authorities, encouraging this labor movement, discounted railway fares and extended the age limit for free transportation, the practice continuing until the Chinese regime in Manchuria was overthrown in 1931.

Table 2. Origins of Chinese Laborers Entering Manchoukuo

Origin:	1935	1936 (Jan.-Nov.)	1937	1937 (Jan.-May)	1938 (Jan.-May)
Shantung	238,430	219,427	181,165	148,959	108,877
Shansi	3,358	2,341	2,135	1,694	1,472
Hopei	165,617	129,920	133,192	85,875	138,959
Honan	42,243	3,237	4,445	3,730	4,458
Kiangsu	1,254	1,101	1,358	1,210	298
Chekiang	958	304	381	310	57
Hupeh	260	199	347	218	17
Chachar .....	.....	244	297	252	1,187
Anhui	96	482	326	260	36
Total including others	414,220	357,297	323,689	242,604	255,409

Routes of Entry.—Immigrants from Hopei and Shantung provinces enter Manchuria by 5 different routes, viz., (1) to Dairen by way of Tsingtao and Chefoo, (2) to Yinkow by way of Tsingtao and Chefoo, (3) to Antung by way of Tsingtao and Chefoo, (4) to Mukden and Huangkutun by the Mukden-Shanhaikwan Railway, (5) by travelling on foot along the same railway. The inhabitants in the northeastern part of Shantung and, especially, those of the Kiao-Tsi (Tsingtao-Tsinan) railway zone travel by train as far as Tsingtao, while those in other parts sail in junks to Lungkow and Chefoo, thence to follow the usual routes. Those living still to the south make their way afoot to Manchuria or travel by the Tientsin-Pukow line as far as Shih-chiushu, and thence to Tsingtao and Dairen. The migrants from the northwestern part travel by train as far as Tientsin and thence to Dairen by sea or to Mukden by train. Immigrants from Hopei in most part proceed by the Mukden-Shanhaikwan railway and in some part take boat at Tientsin either to Dairen or to Yinkow. Those from Honan province first proceed to Chengchow and next to Fengtai by rail to transfer to the Mukden-Shanhaikwan railway. From that city they are transported further into the interior by the railway to Hsinking or the lines deviating to Liaoyuan, Tungli, Talai, Taoan, etc. Thus, Tsingtao, Chefoo, Lungkow, Tientsin are the main ports of departure, and Dairen, Yinkow and Antung the ports of arrival or entry.

Numbers of Immigrant Labor.—No authentic figures are available regarding the number of laborers that migrated from China to Manchuria. It is roughly estimated that the numbers were 350,000 in the year 1921 and 500,000 around the years 1925-26. It is also known that in the period from the autumn of 1927 to the spring of next year, the volume of migrating labor, what with civil wars, banditry and natural disasters, recorded figures considerably above the average.

Whatever statistics available on the subject are based on the reports of shipping companies, although often misleading enough. Children and those who go abroad without tickets to pay

for their fares in cash are more often than not left out of account. The following table, constructed on such a basis and for selected years, is at least indicative of labor movement through the above mentioned channels.

Table 3. Chinese, Including Laborers, Entering and Leaving Manchuria

(A) Entering					
Year	Dairen	Yingkow	Antung	Overland	Total
1923.....	172,014	77,087	46,577	138,011	433,689
1927.....	599,452	153,771	78,879	327,645	1,159,747
1931.....	226,531	79,177	36,139	125,555	467,402
1932.....	210,847	71,229	28,199	103,759	414,034
1933.....	314,401	157,782	42,779	104,000	618,962
1934.....	363,587	137,520	47,697	142,121	690,925
1935.....	206,022	123,288	25,964	164,278	519,552
1936.....		305,944		130,795	436,739
(B) Leaving					
1923.....	122,474	40,282	59,623	64,382	286,761
1927.....	141,859	54,343	20,934	99,413	316,549
1931.....	174,793	106,010	32,408	148,133	461,339
1932.....	215,694	135,339	28,231	119,519	498,783
1933.....	222,891	99,630	24,725	120,000	497,246
1934.....	202,976	95,730	43,437	97,485	439,628
1935.....	158,696	81,566	41,366	312,381	495,009
1936.....		251,257		201,037	452,294
(C) Settlers					
	Entering	Leaving	Net Gain		
1923.....	433,689	286,761	146,928		
1927.....	1,159,747	316,549	843,198		
1931.....	467,402	461,339	6,063		
1932.....	414,064	498,783	-84,719		
1933.....	618,962	497,246	121,716		
1934.....	690,925	439,628	251,297		
1935.....	519,552	495,009	24,543		
1936.....	436,739	452,294	-15,555		

These labor immigrants may be divided into (1) recruited laborers, (2) those in search of permanent settlement, and (3) those who come to live and work with their relatives already in the country. The first mentioned are those commonly called coolies. Of the above numbers the female immigrants represented 5 to 15 per cent., although there has of late been noted a tendency to increase in the female number, in-

dicating general trends from seasonal movements to permanent settlement in the country.

Seasonal Immigration.—The coolies represent a predominant proportion of the immigrants. Because they mostly hail from agricultural areas and come for work to complement their earnings on the farm, their movement is perforce seasonal. They are better off or fully employed in their agricultural work around June when wheat is harvested and in October when potatoes are taken in. Therefore, their seasonal migration is brisk in spring and late autumn, especially in February, March, and April.

Table 4. Labor Immigration and Emigration By Month (1936)

(a) Immigration					
	Dairen	Yingkow	Antung	Overland	Total
Jan. . .	4,336	—	—	4,155	8,491
Feb. . .	23,910	—	—	17,333	41,243
Mar. . .	38,603	5,322	—	28,020	71,945
Apr. . .	26,263	26,443	4,848	26,441	83,995
May . .	18,791	22,214	4,354	16,239	61,598
June . .	10,748	7,800	2,212	12,073	32,833
July . .	9,395	9,520	1,840	7,483	28,238
Aug. . .	9,879	7,750	2,027	4,913	24,569
Sept. . .	8,627	7,003	3,344	6,113	25,087
Oct. . .	12,862	6,537	3,287	3,881	26,567
Nov. . .	12,172	3,235	2,702	3,328	21,437
Dec. . .	7,413	422	—	2,411	10,246
Total .	182,999	96,246	24,614	132,390	436,249

(b) Emigration					
	Dairen	Yingkow	Antung	Overland	Total
Jan. . .	21,202	—	—	22,501	43,793
Feb. . .	11,851	—	—	21,351	33,202
Mar. . .	14,103	1,279	—	21,805	37,187
Apr. . .	8,348	4,929	2,971	20,731	36,979
May . .	8,883	5,390	6,165	13,504	33,942
June . .	7,885	4,879	1,696	11,311	25,771
July . .	7,240	6,166	1,705	12,329	27,440
Aug. . .	8,604	5,853	1,873	8,541	24,871
Sept. . .	5,962	5,607	1,964	7,361	20,894
Oct. . .	13,588	9,147	2,323	14,217	39,275
Nov. . .	18,446	20,458	5,570	18,672	63,146
Dec. . .	27,046	8,614	—	27,483	63,143
Total .	153,158	72,322	24,267	199,896	449,643

Of the labor immigrants at least 70 to 80 per cent. were those who went to work for certain periods of time and went back to their native places with their savings, while 20 to 30 per cent. remained and settled down in Manchuria. It is also a fact in the labor situation that while those from Shantung seldom fail to return to their native province, when their savings are sufficient for their purpose, those from other parts of China, especially those from places where fighting is frequent, or the natural conditions of life and work are less favorable, are often disposed for longer if not permanent residence in

the new country. According to the census taken for the end of the year 1929, the number of Chinese laborers at the Fushun coal mine reached 10,826, of whom only 21 kept their families on the spot, while the rest living in the men's quarters intended to return to their homes in China sooner or later. The statistical data compiled relating to the laborers working on the water front of Dairen showed that those who had been working there for three years represented 45 per cent. of the total number, but of this number there was hardly any but had been back to their native places once, twice or even more, in the meantime. The census taken in 1929 at the Fushun coal mine, virtually the center of labor movement in Manchuria, showed that the number of men who had worked there for more than 3 years represented only 28.5 per cent. of their total for the miners and 24.7 per cent. for the all-round workers. There was practically none who had worked for more than 15 consecutive years.

The savings taken back home by the coolies were on an average 25 to 30 of Tayang silver for one year's labor. Those who stayed for three years generally went back each with savings of something like 100 Tayang silver.

The Coolies

Labor Market.—Free day-laborers flock in search of work where prospective employers come to offer work. The workmen employed at these places are porters, civil engineering laborers, funeral attendants, all-round workers, helps for carpenters, rickshaw men, road cleaners etc. The annual earnings of these men average about 40 to 50 of Tayang silver money, although variations are made to some extent according to seasonal factors, condition of available force, individual efficiency of physical capacity.

Division of Coolies Labor.—Unskilled laborers, or coolies as they are commonly called, may be divided in (1) all-round workmen, helps in civil engineering, (2) coal miners, (3) other mine workers, (4) porters. The first named class of coolies is mostly employed in and about government places, business and industrial establishments, and factories. Of this class some are in steady employment and some hired by the day. The coolies employed in civil engineering works help in all kinds of labor from shovelling of dirt to the plastering of walls. Since no work is possible during the ice-bound season, these laborers for the most part go home or turn to other lines until the warmer season sets in. The coal mining coolies are found in most part at the Fushun

mine, where more than 30,000 are employed at all times. The number employed at the Penhsihu colliery is some 6,000. The coolies working at other mines are found at Anshan, Miaorhkou, etc. The coolie porters in work number approximately 19,000, of whom about 70 per cent. are employed on the wharves of Dairen. In this particular line a laborer has to be in work for three years before he is regarded as a fully competent man.

Labor Organizations.—Except skilled laborers and those who offer themselves for work under free arrangements, the coolies under the five categories above mentioned are generally under the direction of coolie masters. Each coolie master holds under him two or three Second Masters, who in turn command several of Third Masters under them. This sort of arrangement is a rule wherever 200 or more coolies are working together. Each of the Third Masters commands a squad of 14 to 15 coolies, at once directing and sharing their work. The Second Masters each direct two or three Third Masters and through them their labor squads. The Second Master directs and supervises all work on the ground. The chief coolie Master, unlike the Second or the Third Master, seldom keeps himself on the first line of work. He rather gives his attention to the general direction of work and whatever must be taken up with the employer. The scale of wages descends in the order of Second Masters, Third Masters and common coolies. It is also the duty of the chief Master to interest himself in private affairs of all men in his employment, administering aids and offering counsel. Besides, he has to be master of his trade, not unlike a superintendent at a manufacturing mill. The chief Master assisted by "Hsien Sheng" or secretary who keeps accounts and cash. With allowances from the chief Master, he attends to the financial side of feeding the men. The chief Master also keeps direct under him a cook who provides food, takes in provisions and keeps watch at the lodging place, while the men are out for work. Lowest in the scale is a boy who attends to all-round work in and about the lodgings and also helps the cook. The cost of board is shared by all the coolies, who when their number is large enough to warrant such luxury, employ their own barber on their collective account.

Demand and Supply

Labor in Manchuria, as already mentioned, is often subject to seasonal variation. This is especially true with railway and civil engineering laborers and stevedores. For instance, rail-

way laborers are in great demand during the season of bean transportation but half as many or even less are required in the summer season. This situation may be brought out better by an examination of the numbers of coolies employed at the Dairen wharves and Hsinking Station by months, these places being two important points in transportation of beans.

Table 5. Number of Coolies at Dairen Piers and Hsinking Station By Months

Month	Dairen	Hsinking
January	10,825	611
February	10,300	623
March	9,785	542
April	9,500	549
May	9,050	512
June	8,653	459
July	8,347	500
August	7,888	383
September	7,847	529
October	7,349	404
November	8,410	831
December	10,520	1,858
Average	9,040	650

Note: Figures are daily average for each specified month.

While the numbers at the Dairen piers fluctuate less widely, those for Hsinking Station vary from a maximum of 1,858 for December, when the bean loaded wagons begin to pour in, to a minimum of 383 for August, when the movement of beans is at its lowest ebb. In civil engineering, although no statistical data are available, demand for labor is from spring to autumn, there being no work in winter.

While no statistics are available with regard to the demand and supply situation of labor in all industries, an investigation into public works and in building construction showed a slight shortage of hands in 1937. Of 288,105 laborers required for the foregoing enterprises a total of 192,963 laborers were available.

Table 6. Shortage of Laborers in Public Works and Building Construction in Manchoukuo and Kwantung (1937)

Localities:	No. of Laborers Required	Number employed	Shortage
Dairen	15,000	15,000	—
Mukden	27,000	25,000	2,000
Hsinking	34,500	34,000	500
Anshan	5,000	4,000	1,000
Fushun	8,600	8,000	600
Harbin	10,800	10,000	800
Antung	2,500	2,000	500
Mutankiang	21,200	19,000	2,200
Tsitsihar	3,900	2,500	1,400
Chinchow	3,000	3,000	—
Kirin	7,760	7,000	760
Construction works . .	58,809	42,187	16,622
Other works	30,036	21,276	8,760
Total	228,105	192,963	35,142

Living Condition of Labor

Wherever large numbers of coolies are employed collective lodges are provided. Although originated from the idea of preventing desertion and providing facilities for training of apprentices, this arrangement serves not ill for the men living without their families. Factory dormitories of more recent construction are well designed to afford comforts of life, typical ones being at the Foo Cotton Spinning mill at Chou-shuitzu. The living quarters are provided with bedrooms, nurseries, bath-rooms, laundry, dining hall, and lavatories for the factory girls. The lodging places provided by Manchus themselves are generally more crude affairs. At such places, while under-floor heating systems are invariably provided, a mat-rush laid on the floor furnishes about all the material comfort in sight. A dormitory, regardless of its equipment, is generally accompanied by a booth where daily necessities are sold. These shops are run either on a subsidized or a purely business basis, and sometimes managed on a collective account by the employees themselves. The living quarters provided by coolie masters, except where financial aids are granted by their employers, are generally primitive affairs. The walls are built with mud dried in the form of brick, and the roofing provided over the walls by a mixture of mud and weed dried in the sun. The coolies engaged in civil engineering, living as a rule close to the scene of work, make their temporary abode by digging holes in the ground to a depth of some 3 or 4 feet. Dried grass is thickly strewn on the bottom, where a mat-rush is laid. The dug-out is roofed by putting up rush-mats in a round or pyramidal form. The bedding is invariably provided by each one of the inmates. Their bedding generally consists of a single cotton-wadded coverlet, which is the most valuable of their household or personal effects. When a coolie is to travel he rolls the cooking utensils and footgear in the bedding and slings the whole thing across his shoulder, holding it fast by a piece of string. As a matter of fact, without this much of personal property he would be denied admittance to any inn as he goes travelling on the road.

Standard of Living

Statistical data available on the subject are hardly adequate or comprehensive enough. The administrative authorities of Pulantien, in Kwantung Leased Territory, conducted in 1930 investigations over a period of a year with regard to agricultural economies under their jurisdic-

tion. The data collected from 5 agricultural families of Manchou origin showed that the cost of living for one year was an average Yuan 181.80 of Hsiao Yang silver. The statistics compiled in 1932 regarding the living costs of porters and other railway laborers about Mukden Station showed the average daily cost of living was MY0.213. These laborers lived in the quarters provided by their masters, collectively bearing the expenses of rent and board. The living cost of the stevedores at the Dairen piers in 1933 averaged at MY0.624 of Hsiao Yang money. The statistics compiled by the South Manchuria Railway with regard to 140 families of laborers employed at a machinery plant in Dairen indicated for 19 families reporting the lowest figures the average as shown below, the value figures being in the gold yen and on an annual basis, and the percentages as of the total expenditure.

Table 7. Average Annual Expenditures Per Family

Items	GY	%
Foods	24.09	52.10
House rent	7.94	17.17
Clothes	4.48	9.69
Others	9.73	21.04
Total	46.24	100.00

Another source of information is the Fushun coal mine. The management gave out in 1935 statistical data on the living condition of the laborers employed at the mine. On the basis of these figures the cost of living of these men on an yearly basis was as shown in the under-given tables, where the maximum and the minimum groups are shown.

Table 8. Annual Cost of Living of Mining Laborers at Fushun

Items	(MY)	
	Group I	Group II
Primary foods	55.77	103.53
Subsidiary foods	30.21	61.64
"Luxuries"	20.97	16.79
Lodgings	5.72	38.38
Clothing	24.80	30.44
Total	137.47	150.78
Daily average	0.38	0.69
Wages	66.00	68.00
Family members (inclusive of workers)	—	4.2

Items	Group II		Indices of Cost of Living
	Single	With families	
Primary foods	45.66	88.37	According to statistics compiled by the Central Bank of Manchou the indices of cost of living in Hsinking show a marked advance in recent years. As compared with the average for 1936 the cost of living as of June, 1938 was up by approximately 25%, this rise being largely accounted for by the effects of the Sino-Japanese hostilities.
Subsidiary foods	23.93	37.21	
"Luxuries"	19.69	15.81	
Lodgings	6.09	28.81	
Clothing	18.14	24.06	
Total	113.51	194.26	
Daily average	0.31	0.53	
Wages	58.00	58.00	
Family members (inclusive of workers)	—	4.0	

Table 9. Indices of Cost of Living in Hsinking (Average of 1936—100)

	Food & drink	Clothing	Dwelling	Fuel & light	Miscellaneous	Average	Average in U.S.A.
1936 (Average)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1937 (")	101.97	106.59	102.45	100.96	105.35	106.76	104.45
1937 January	109.10	104.83	101.44	100.53	103.93	105.27	102.48
February	111.86	105.25	101.85	100.53	105.02	106.46	102.88
March	110.15	104.83	101.98	100.53	104.34	105.83	103.66
April	111.26	105.54	101.98	100.53	105.52	106.65	104.13
May	108.59	107.45	102.29	101.36	104.56	105.87	104.72
June	108.33	107.10	101.98	100.69	104.60	105.64	104.84
July	108.39	107.66	102.29	100.69	104.63	105.80	104.84
August	107.65	106.57	102.29	101.14	104.34	105.32	104.96
September	112.62	106.57	102.29	101.14	106.29	107.59	105.43
October	113.89	107.56	103.05	102.13	106.73	108.50	105.55
November	114.79	107.72	103.82	101.14	107.08	108.97	104.96
December	115.05	108.03	104.12	101.14	107.18	109.18	104.49
1938 January	114.99	107.93	104.12	102.56	107.16	109.25	103.19
February	120.88	109.84	104.12	103.45	110.18	112.49	102.24
March	119.22	115.56	105.03	107.78	126.32	117.68	102.24
April	117.34	120.45	105.33	104.47	125.58	117.41	102.36
May	121.09	130.11	104.73	107.62	127.67	120.97	102.01
June	122.56	159.29	105.03	109.18	128.25	126.48	102.24

Wages

A pertinent feature of the wage situation in Manchoukuo is the wide margin that exists between wages paid to Manchoukuo and Japanese workers in the various industries. The average wage of the Manchoukuoan employee

is still about one-third that paid to the Japanese. As of August, 1937 the average daily wage of the Manchoukuoan worker was ¥0.76 as compared with ¥2.34 for the Japanese. The minimum Japanese daily wage was ¥0.70 and that of the Manchoukuoan, ¥0.25.

Table 10. Daily Wages Classified by Nationality in Mukden (August, 1937) (In Yen)

Industries:	Japanese			Manchoukuoans & Chinese		
	Highest	Lowest	Average	Highest	Lowest	Average
Spinning	2.80	1.00	1.89	2.00	.28	.50
Metal	5.30	1.30	3.05	2.30	.30	.88
Machine and Tool	5.62	.90	2.73	2.26	.25	.75
Ceramics	4.00	2.00	2.90	1.20	.50	.87
Chemical	2.00	1.00	1.75	1.68	.25	.65
Salt	—	—	—	—	—	—
Provisions	3.50	.70	1.65	1.85	.25	.56
Lumbering and Woodworking	—	—	—	1.90	.51	.58
Printing	5.00	1.40	2.63	2.56	.35	1.40
Gas and Electric	2.93	1.65	2.09	1.06	.50	.64
Average	5.62	.70	2.34	2.56	.25	.76

It is of interest to note that the Tatung Kung Ssu, the labor agency, has given out data relating to the earning carried back by Chinese coolies in ten months of the first year after the new institution placed labor under its control. According to the same agency, in the period January to October, 1936, both months inclusive, the total number of home-bound Chinese coolies who passed through Shanhaikwan reached 122,121 and the amount of earnings taken with them MY2,730,222 or an average of MY22.36 per head. The outgoing number of coolies and their money are shown by months in the subjoined table:—

Table 11. Outgoing Coolies

1936		Money Carried by Coolies (MY)	1936		Money Carried by Coolies (MY)
	No. of coolies			No. of coolies	
January	18,448	173,064.46	July	10,143	282,202.26
February	17,333	395,537.06	August	6,963	84,707.28
March	17,507	429,971.92	September	6,947	75,513.87
April	12,627	370,097.97	October	11,427	281,103.40
May	11,098	341,707.42	Total	122,121	2,730,221.64
June	9,325	295,416.00			

Labor Hours.—Statistics on the subject are as often as not misleading, since averages are worked out on an inaccurate basis in not a few instances. Extension of working hours under good business conditions is as likely as arbitrary abridgment of hours when business is less profitable. However, the table below may be useful as a guide.

Table 12. Labor Hours and Days

(1933)

	Average labor hours per day				Average labor days per year	
	Japanese enterprises		Manchoukuoan enterprises		Japanese enterprises	Manchoukuoan enterprises
	Hours	Minutes	Hours	Minutes		
Cotton mills	9	36	10	30	281	274
Ceramics	9	54	10	6	229	169
Chemical	8	54	11	30	291	192
Machinery	10	30	10	24	313	314
Foodstuff	10	36	9	30	274	248
Average for others	9	54	10	30	289	254

Labor Disputes

Organized labor disputes, as such are known in the West, still remain non-existent in Manchoukuo. In 1936 there were only 13 cases which could be numbered as labor disputes, in

which 1,129 persons were involved. Most of the disputes have occurred in the manufacturing and transportation industries. Contentions for higher wages are a principal cause for the disputes which have taken place in recent years.

Table 13. Number of Labor Disputes, Participants, Etc.

(A)					
Year	Number of cases	No. of Participants	No. of Participants per case	No. of days	No. of days per case
1930	35	2,785	80	114	3.3
1931	20	3,031	152	92	4.6
1932	8	1,134	142	23	2.9
1933	29	6,345	219	81	2.8
1934	11	863	78	52	4.7
1935	13	1,076	83	32	2.5
1936	13	1,129	87	46	3.5

Labor Disputes by Industries

Year	(B)					Total
	Mfg. Industry	Mining	Trans- portation	Civil engi- neering	Others	
1930	16	10	5	4	—	35
1931	10	2	3	2	3	20
1932	5	—	1	—	2	8
1933	23	1	1	—	4	29
1934	9	—	1	—	1	11
1935	10	—	3	—	—	13
1936	7	—	4	—	2	13

Labor Disputes by Causes

	(C)						
	1930	1931	1932	1933	1934	1935	1936
For higher wages	11	6	4	12	4	5	3
Against wage decrease	4	2	—	2	3	—	—
Demands for wage payment	4	3	1	4	—	2	3
Complaint against treatment	2	2	2	3	1	—	—
Complaint against system	5	2	1	—	1	4	6
For shortening working hours	—	—	—	2	—	—	—
Collision of feelings	5	4	—	3	2	2	1
Total including others	35	20	8	29	11	13	13

State Control of Labor

The Commission on Labor Control was instituted in January, 1934. The main subjects for its consideration were labor control by nationalities, control of labor conditions, control of labor protection, adjustment of demand and supply of labor. Of these questions the first named was regarded as most important under the existing conditions of the country and its industry. The object of controlling labor by nationalities is to assure the supply of labor in future from Japanese, Korean and Manchu elements, excluding Chinese labor. The official policy, however, is to be moderated so far as necessary to carry out the industrial expansion program upon which the country has embarked. As an initial setup the Manchoukuo Government issued in March, 1935, the regulations for control of foreign labor. Since the foreign laborers in Manchoukuo are entirely Chinese, the same official rules apply in practice to Chinese labor exclusively, ranging over the fields of agriculture, forestry, fisheries, mining, trade, civil engineering, construction, manufacture and transportation. An important feature of the regulations is that foreign laborers are to be admitted only by certificates issued by those officially appointed to handle incoming or outgoing labor. Under the same system the Tatung Kung Ssu, organized under the Japanese law, has been

appointed to handle labor for Manchoukuo and the Kwantung Leased Territory. The new labor institution has established branches at Tientsin, Tsingtao, Weihaiwei, Chefoo, Tangku, Lungkou, Shanhaikwan, Chifengkou, Lengkou, Kupeikou, Dairen, Yinkow, Antung. At these ports of departure and places of entry the movement of labor is controlled with the cooperation of local Manchu and Chinese authorities. Another feature of importance is that the entry of disorderly elements and unemployed force is prohibited. Admission and selection of labor is to be made each year on the estimation of industrial requirements and the prospective supply from internal sources. That such estimation is well-nigh impossible at least in agriculture is beyond question. While it is still uncertain how far official policy will be directed in dealing with labor issues and developments, it seems at least clear that much that will be done will perforce be tentative or experimental at the best, until the situation has been taken well in hand.

Contracts for Civil Engineering and Architectural Works

Contracts amounting in value to ¥161,982,000 for civil engineering and architectural works were made in 1937. The South Manchuria Railway Company yearly takes a major rôle in the placement of orders for such works.

Table 14. Contracts for Civil Engineering and Architectural Works in 1937

(In ¥1,000)

	Civil Engineering	Architectural	Total
Special Works	1,838	21,533	23,371
Kwantung Government	—	1,948	1,948
S. M. R. Company	28,672	19,344	48,016
Manchoukuo Government	7,765	16,945	24,711
Others	2,811	61,126	63,937
Total	41,087	120,895	161,982

References:

- Table Nos.: 1-2 b, 3-5 a, 6 c, 7-8 a, 9 d, 10-13 a, 14 c.
- Key: a—S. M. R. Co.
- b—Tatung Kungssu.
- c—Dairen Chamber of Commerce & Industry.
- d—Central Ban kof Manchou.

CHAPTER XXVI

THE SOUTH MANCHURIA RAILWAY COMPANY

Introductory Remarks

The South Manchuria Railway Company has been the bulwark of Japanese political and economic interests in Manchuria for the past three decades. The importance of this semi-governmental Japanese concern has been considerably augmented since the founding of Manchoukuo, and in many branches of state undertakings of the newly established nation the S.M.R. is vested with supervisory control. Mention may be made of the state railways, mining, public utilities, harbour works, the communication system, all of which are linked directly, or indirectly through subsidiaries, with the South Manchuria Railway Company.

The South Manchuria Railway Company appraised its property conservatively in 1937 at two billion yen. With regard to capital, great corporations comparable to this are found in the world, but in the extent of its activities, in the magnitude of its mission, and its meritorious achievements during the past thirty years, the Company enjoys a singular position. With 170,000 employees in 1937 it directly or indirectly swings a heavy pendulum in Far Eastern affairs.

(For decision to entrust the subsidiaries of the S. M. R. to the Manchuria Industrial Development Corporation see Economic Policy Chapter).

Early History

An epoch-making incident occurred in the earlier days of Manchuria's railway history when, in 1896, the Li-Lobanoff secret agreement was concluded between China and Russia. The latter, by this undisclosed pact, secured the major portion of the rights covering the building and management of the Chinese Eastern Railway (present North Manchuria Railway). It was evident then that Russia had been planning that railway as the main artery for carrying out her Far Eastern policy. The program progressed with remarkable steadiness, until at last it became an open secret that Russia was about to extend her grip to Manchuria and Chosen.

Such a situation became an increasingly serious menace to the maintenance of Japan's independence, threatening the peace of the Far East. Dark clouds gradually thickened until Japan rose in arms against Russia because of her national existence being at stake.

Japan won the war at a high price, and as the result of the Portsmouth Treaty signed in 1905, Russia agreed to cede to Japan the southern branch of the Chinese Eastern Railway, which is the present South Manchuria line. Doubtlessly the defeat of Russia in the war and her subsequent concession of the railway checked the growth of her influence in South Manchuria. Russia thus left the stage, and Japan entered upon the policy of establishing peace in the Far East.

It was the late Count Shimpei Goto who laboured during the first stage of this continental plan, using the South Manchuria Railway as a lever. The Count had courage and foresight enough to make the railway a gigantic enterprise.

Later, Japan's Manchurian and Mongolian policy came to have a firmer foundation as the results of diplomatic negotiations with Russia and Britain. The work initiated by Count Goto was then taken over by his able right-hand man and successor Korekimi Nakamura. The business of the railway further showed signs of greater development in 1915 when the Sino-Japanese Treaty was concluded, but not long after Japan's Manchurian policy tended to be negative at times due to the change in the political situation at home and abroad. It was at this juncture that the late Marshal Chang Tso-lin, representing the military clique of the Three Northeastern Provinces, vigorously began to widen his sphere of influence, meanwhile scheming to drive Japan out of Manchuria gradually.

The challenge of the Mukden warlord became more pronounced when he planned the construction of railways parallel to the South Manchuria line in contravention to the stipulations of the Sino-Japanese pact. The business of the S.M.R., which was once prosperous, steadily waned, and Japan's vested rights in Manchuria were trampled upon by the Chinese on many occasions.

The climax came on September 18, 1931 when a squad of soldiers under the command of General Chang Hsueh-liang, the son of the late Marshal Chang Tso-lin, dynamited the S.M.R. track near Mukden. This incident proved to be the spark that set off the Manchurian powder keg and when the smoke had cleared away, the new state had risen.

With the founding of the new state of Manchoukuo the Japanese interests were now secure-

ly assured, and the mission of the South Manchuria Railway from the economic and cultural angle has become more important than ever. The activities of the S.M.R. are now quite free and the management, since being entrusted with the supervision of the Manchoukuo state railways in March 1933 has been showing excellent business results.

Establishment of the Company

The South Manchuria Railway Company was formed under Imperial Ordinance No. 142 of June 7, 1906, and a Government order dated August 1, 1906. The articles of association were passed at the general meeting of shareholders on November 22, 1906, in which were prescribed the status of the corporation, its business functions, etc. The Imperial Ordinance relating to the establishment of the concern provided:

(1) That a joint-stock corporation named the Minami Manshu Tetsudo Kabushiki Kaisha (South Manchuria Railway Joint-stock Company) shall be organized for the purpose of engaging in railway transportation business in Manchuria; (2) That the share of the Company shall be registered and owned only by the Japanese and Chinese Governments or by their nationals; (3) That the Japanese Government may offer as part of the capital its railways in Manchuria, coal mines and appurtenances obtained in 1905 from Russia by the Treaty of Portsmouth and approved by China in virtue of the Peking Treaty concluded the same year; (4) That the President and Vice-President shall be appointed by the Government, and that the directors shall be elected from among shareholders at the general meetings of shareholders; (5) That matters relating to the Company not provided for by this ordinance the provisions of commercial law shall be applied.

Thus the South Manchuria Railway Company came into existence under special charter of the Government, but essentially as a joint-stock

company organized in conformity with the provision of the Commercial Law of Japan.

Organization

Especial attention was paid to the selection of the personnel of the governing board of the Company. President Baron Goto, who had exhibited an unusual organizing and executive ability in the civil administration and industrial development of Formosa, selected the directors of the board from among men having ability and experience in banking, trading, railway operation, in legal profession, and in civil administration. The efforts of Baron Goto during his tenure of office, though it was of a short duration not extending more than two years, placed the Company on a sound basis. The term of office of the President and Vice-President was fixed at five years, and that of directors at four years.

The present head of the company is Mr. Yosuke Matsuoka who was appointed in 1935, upon the resignation of former President Count Hayashi. Mr. Matsuoka's policy has been characterized by aggressiveness and a deep foresight into the future. Many of the projects he has launched upon, such as the liquefaction of coal at Fushun, have been completed, conferring much to the industrialization of Manchoukuo. The names of the successive Presidents of the Company are listed below:

- 1st Baron (later Count) Shimpei Goto
- 2nd Korekimi Nakamura
- 3rd Ryutaro Nomura, Dr. Eng.
- 4th Baron Yujiro Nakamura
- 5th Shimbei Kunisawa, Dr. Eng.
- 6th Ryutaro Nomura, Dr. Eng.
- 7th Senkichi Hayakawa
- 8th Takeji Kawamura
- 9th Ban-ichiro Yasuhiro
- 10th Jotaro Yamamoto
- 11th Mitsugu Sengoku, Dr. Eng.
- 12th Count Yasuya Uchida
- 13th Count Hirotarō Hayashi
- 14th Yosuke Matsuoka

Table I. S.M.R. Lines

Lines	Distance	Working Mileage (Kms.)	Gauge (Feet)	No. of Stations
Dairen	Dairen Bund-Hsinking.....	704.3	4.85	74
Anfeng	Antung-Suchiatun	260.2	4.85	27
Port Arthur	Choushuizu-Port Arthur ...	50.8	4.85	5
Fushun	Suchiatun-Fushun	52.9	4.85	6
Yingkow	Tashihchiao-Yingkow	22.4	4.85	1
Yentai Colliery branch line.....	Yentai-coal mines	15.6	4.85	—
Other branch lines .....	.....	22.9	4.85	2
Total .....	.....	1,129.1	—	115

Note:—There were sixteen sheds for engines and three for passenger cars at the same date. The Company also owned and managed 185 godowns (covering an area of roughly 539,447 square metres) at the Dairen Pier and thirty stations.

General Balance Sheet

ASSETS	Amount	
	Details	Total
Subscribed Capital Stock Uncalled	123,792,000.00	123,792,000.00
Fixed Assets:—		
Railway and Equipment	317,465,693.65	
Hotels	5,247,262.22	
Harbours and Wharves	110,239,049.88	
Collieries and Equipment	137,260,163.43	
Oil Distillating Plant	12,752,548.50	
Coal Liquefaction Plant	5,301,832.97	
Iron Plant	457,460.10	
Equipment for Industrial Exploitation	8,591,984.87	
Equipment for Local Administration:		
Land	105,549,897.82	
Schools and Hospitals	36,134,272.87	
Miscellaneous	40,190,030.45	181,874,201.14
Facilities and Equipment not included in the above:—		
Offices	5,851,966.22	
Employees' Dwellings	46,230,182.25	
Miscellaneous	21,447,341.61	73,529,490.08
Total Fixed Assets	852,719,686.84	852,719,686.84
Investments:		
Bonds and Shares:—		
Imperial Japanese Government Bonds	20,968.50	
Manchoukuo Government Railway Bonds	660,247.50	
Shares of Subsidiary Companies, and Other		
Bond Shares, etc.	151,324,052.88	152,005,268.88
Loans:—		
Loans to Manchoukuo Government Railways	613,664,566.00	
Loans to Other Concerns	11,677,561.51	625,342,127.51
Total Investments	777,347,396.39	777,347,396.39
Current Assets:—		
Cash in Hand and at Banks	76,151,398.31	
Bills Receivable	875,714.01	
Exchange Accounts	2,309,404.72	
Accounts Receivable	153,148,403.97	
Guaranty Funds	23,560.00	
Collateral Securities, etc.	4,810,665.30	
Due from Other Concerns	254,171.94	
Inventories:—		
Merchandise:—Coal and Other Products	4,192,647.04	
Material and Supplies	44,215,493.27	
Total Current Assets	285,981,453.56	285,981,453.56
Unadjusted Accounts:—		
Partial Payments made in Advance	203,354,082.84	
Discount on Bonds	0	
Total Unadjusted Accounts	203,354,082.84	203,354,082.84
Total Assets		¥2,243,194,624.63

PROFIT AND LOSS ACCOUNT
(for the Year ending March 31, 1938)

Remarks	Income	Expenditure	Balance
Railway	151,053,017.54	53,957,035.83	97,095,981.71
Hotels	2,180,423.61	2,036,519.74	143,903.87
Harbours and Wharves	17,724,065.90	11,485,631.04	6,238,434.86
Collieries	91,176,953.87	80,671,886.42	10,505,067.45
Oil Distillation	8,516,863.73	7,029,613.13	1,487,250.60
Industrial Exploitation	952,705.15	8,056,824.95	7,104,119.81
Local Administration	9,062,822.29	18,493,149.45	9,430,327.16
Generals	40,652,014.92	33,483,718.21	7,168,296.71
Interest	33,729,272.27	47,844,434.51	14,115,162.24
Depreciation, Depletion, etc.		18,059,831.42	18,059,831.42
Net Profit		73,929,494.57	73,929,494.57
Total	¥355,048,139.28	¥355,048,139.28	0

as on March 31, 1938

LIABILITIES	Amount	
	Details	Total
Capital Stock Subscribed:—		
Held by the Imperial Japanese Government... 8,000,000 shares	400,000,000.00	
Held by Public	400,000,000.00	
Total	800,000,000.00	800,000,000.00
Paid up	676,208,000.00	
Balance Uncalled	123,792,000.00	
Reserves:—		
Legal Reserve	44,290,000.00	
Special Reserve	203,900,000.00	
Total Reserves	248,190,000.00	248,190,000.00
Bonds:		
Issued in Japan	797,950,000.00	797,950,000.00
Current Liabilities:—		
Bills Payable	72,800,000.00	
Accounts Payable	35,840,576.11	
Collateral Securities, etc.	21,100.00	
Guaranty Funds	364,695.17	
Exchange Accounts	194,697.52	
Matured Bonds Unpaid	80,000.00	
Due to Other Concerns	849,866.93	
Total Current Liabilities	110,100,735.73	110,100,735.73
Deposits:—		
Employees, Savings Deposits	17,860,003.69	
Employees' Surety Deposits	65,167,930.22	
Employees' Mutual Relief Society Deposits	5,781,947.19	
Subsidiary Companies' Deposits, etc.	84,068,924.42	
Total Deposits	172,878,805.52	172,878,805.52
Unadjusted Accounts:—		
Sundry Receipts Unadjusted	22,677,902.84	22,677,902.84
* Net Profit for the Year ending March 31, 1938	73,929,494.57	
Balance brought forward from Previous Year	17,467,685.97	
Total	91,397,180.54	91,397,180.54
Total Liabilities		¥2,243,194,624.63

DISPOSITION OF NET PROFIT

(for the Year ending March 31, 1938)

Remarks	Net Profit	Disposition
Net Profit for the Year ending March 31, 1938	73,929,494.57	
Balance from Previous Year	17,467,685.97	
Legal Reserve		3,700,000.00
Dividend on Government Shares (4.43% per annum)		11,903,460.98
Dividend on Public Shares (8% per annum)		30,560,000.00
Special Reserve		7,000,000.00
Dividend Reserve		20,000,000.00
Bonuses to Officials		500,000.00
Balance carried forward		17,733,719.56
Total	¥91,397,180.54	¥91,397,180.54

N.B.—The amount of Depreciation, Depletion being as follows:

Fixed Assets	26,548,865.73
Investments	6,104,198.30
Discount on Bonds	971,000.00
Other Assets	193,551.26
Total	¥33,817,615.29

The total amount has been charged to the following accounts:

Profit and Loss Accounts	18,059,831.42
Suspense Accounts	15,757,783.87
Total	¥33,817,615.29

Finance

The South Manchuria Railway Company was established in 1906 with an authorized capital of ¥200,000,000, and in accordance with the stipulations regarding its establishment as entered in the Government Order, subscription was open only to the Japanese and Chinese governments and their respective peoples. The Chinese, however, desisted from subscribing and the entire lot was taken up by the Japanese, the government subscribing one half of the amount or ¥100,000,000, the equivalent for which were represented in its assets in railways, mining and appurtenances which it turned over to the Company. The other half was subscribed for by the public. The authorized and paid-up capitalization of the Company is tabulated as follows:—

Table 2. S.M.R. Capital

Year	Authorized Capital	Paid-up Capital	No. of Shares Represented
1906	¥200,000,000	¥ 2,000,000	2,000,000
1920	440,000,000	80,000,000	4,000,000
1931	440,000,000	334,312,000	8,800,000
1932	440,000,000	387,156,000	8,800,000
1933	800,000,000	512,208,000	16,000,000
1934	800,000,000	548,208,000	16,000,000
1935	800,000,000	584,208,000	16,000,000
1936	800,000,000	620,208,000	16,000,000
1937	800,000,000	676,208,000	16,000,000

Note:—The face value of the shares was reduced by one-half i.e. from ¥100 to ¥50 in June, 1929.

The total amount of internal and external debentures issued, redeemed and outstanding is as follows:—

Table 4. Investments in Undertakings of S.M.R. Company (In Yen)

	1917-8	1922-3	1932-3	1935-6	1936-7	1937-8
Railway	105,530,752	189,616,304	273,663,240	305,196,571	320,098,933	317,465,694
Workshops	7,569,359	11,068,325	—	—	—	—
Coal Liquefaction	—	—	—	—	1,229,085	5,301,833
Steamships	2,680,317	3,559,874	—	—	—	—
Harbours	24,099,884	37,064,208	87,837,479	100,471,385	101,290,584	110,239,050
Coal Mines	71,097,085	121,056,784	108,911,044	119,791,284	128,944,703	137,260,163
Oil Refineries	—	—	7,922,554	10,518,429	10,251,826	12,752,549
Iron Works	4,447,760	34,541,803	29,359,840	—	—	457,460
Chemical Fertilizer Plant.	—	—	50,940	—	—	—
Electricity	5,738,182	15,237,406	—	—	—	—
Gas	1,554,778	5,434,140	—	—	—	—
Hotels	2,075,006	4,370,222	4,867,405	5,264,475	5,319,208	5,247,262
Public Works	17,786,171	40,863,288	150,171,521	193,027,249	193,482,534	181,874,301
Industrial Encouragement	—	—	—	—	—	8,591,865
Others	21,782,973	46,074,005	65,649,594	68,668,187	73,706,947	73,229,430
Total	263,362,667	606,886,548	758,428,620	802,850,465	833,923,819	852,719,687

The profits of the Company which were returned as 2,000,000 yen in 1907 increased to 45,000,000 yen twenty-three years later, namely in 1929 but fell to 21,000,000 yen in 1930 and rose to ¥73,929,000 in 1938. The railway business furnishes the most important item of revenue, followed by the coal mines, harbour undertakings and oil shale enterprise. Other

Table 3. S.M.R. Debentures

	Debentures Issued	Debentures Redeemed	Debentures Outstanding
1935	¥115,000,000	¥ 225,000	¥652,400,000
1936	225,000,000	100,225,000	777,175,000
1937	66,000,000	35,225,000	797,950,000

The Company was originally authorized to issue debentures to the amount of the unpaid share capital belonging to other than Government holders. By Imperial Ordinance No. 4 of 1910 this amount could be expanded to twice the amount of all paid-up share capital, but could not exceed the amount of the authorized capital. The Government may guarantee the payment of interest necessary, but the debentures issued with the Government guarantee must be redeemed within twenty-five years.

Investment and Accounting

The Company started its undertakings in 1907 with an estimated fund of 100,000,000 yen, of which 80,000,000 yen was raised by floating a loan in England and 20,000,000 yen by calls on shares. The funds thus raised have been invested in various enterprises. The investment in direct undertakings, including the appraised value of properties taken over by the Company from the Japanese Government in 1906, aggregated ¥852,719,687 as on March 31, 1938. The investments of the S. M. R. Company in its various branches of undertakings are tabulated as follow:—

enterprises of the Company to date are conducted at a loss or nominal profit, but these are intended mainly for the public benefit and to develop traffic for the railway. The expenditures for local public works such as schools, hospitals, street and road-building, industrial experiment institutes, agricultural model farms etc., amounted to a goodly sum.

Table 5. Receipts, Expenditures, Profits of S. M. R. Company (In Yen)

Year Ending March 31	Receipts	Expenditures	Profits
1903	12,543,116	10,626,531	2,016,585
1918	63,429,252	54,003,610	14,925,643
1923	169,956,649	134,876,402	35,080,244
1930	240,988,062	195,491,205	45,506,857
1931	188,104,052	166,430,000	21,673,462
1922	187,044,402	174,455,782	12,588,620
1933	245,940,674	184,652,950	61,287,725
1934	248,001,717	205,081,168	42,920,554
1935	276,669,205	224,201,748	46,467,457
1936	302,158,850	225,299,545	49,624,142
1937	293,044,498	233,467,539	50,173,971
1938	355,018,139	267,038,818	73,929,495

in the matter of dividends on the net profits of the Company, the Japanese Government guaranteed payment up to 6 per cent. on the publicly held shares, this in case the rate of dividend should fall below that percentage; but the Company's enterprises, especially the railways, were so successful that a 6 per cent. dividend on the publicly held shares was paid from the first fiscal year, it being gradually increased to 11 per cent. as in 1928, though reduced to 8 per cent. in 1930. The Government shares in the profit, but only after payment has been made of all charges and of the 6 per cent. dividend on the public shares. The Government received such dividends from the fiscal year 1909, and received 4.3 per cent. on its holdings from 1921 to 1927. The dividend was increased to 5 per cent. in 1928, but was down to 4.43 per cent. in 1938.

Subsidiary Undertakings

Besides the railway business, the S.M.R. Co. is engaged in various undertakings such as harbour improvements, the construction and reconstruction of railways, warehousing, hotels, the administration of the Manchoukuo State Railways, the Chosen Railways, mining, the distillation of shale oil, the administration of the Railway Zone, town construction, the hospital and health service, agricultural experimental stations, schools, laboratories, etc.

Harbour Improvements.—The port and harbour improvements taken up by the S.M.R. Co., chiefly concern Dairen and only a little the ports of Port Arthur, Yingkow, and Antung.

The Russians originally planned to make the port of Dairen or Dalny at it was then called by them, the southern terminus of their Chinese Eastern Railway. The plan laid down by them was gigantic on scale. Some 30,000,000 roubles were said to have been invested in the undertaking during a decade of their control. When the Company took charge of the harbour, however, the port was far from complete, only one small pier having been finished, while quays and breakwaters were only partially constructed and

the dredging of the harbour was merely begun, the greater portion being untouched. Following on the whole the Russian plan, the Company immediately entered upon a comprehensive scheme of harbour improvements. The breakwaters were improved and completed in 1918; four beautiful new piers were constructed with all modern equipments and improvements; the harbour was carefully dredged so that all first class steamers can enter and dock at ease along these piers; and nearly 70 miles of rails were laid within the pier compounds to facilitate the shifting and handling of cargoes. Just outside the breakwaters, at Jijiko, there are additional two piers which are reserved respectively for oil and combustibles, while at Kanseishi across the bay is a separate pier with modern loading equipments for the special purpose of handling the Fushun coal. At the latter point, another pier for the exclusive handling of ammonium sulphate was completed. A wharf for junk cargoes is also provided within the harbour. All told, some 11,000,000 tons of cargoes can be easily handled annually at this southern gate of Manchuria. As a result, the port of Dairen has become one of the most beautiful and best equipped ports in the Orient.

In this stupendous work of harbour and pier improvements, the Company had invested over ¥74,780,000 up to the end of 1933. The Company also operates piers at Yingkow, Antung, Port Arthur, Shanghai, and Osaka and Tsurumi in Japan. If expenditures incurred by the construction of these piers be added, the total investment will rise to over ¥90,000,000. The Company is now conducting extensive harbour construction activities at the new port of Rashin in north-eastern Korea.

It is significant to note that all ships above 1,000 tons, in order to assure the safety of their arrivals and departures, are required to use the free but compulsory pilot system provided by the company. Moreover, only a nominal fee is charged for the use of the abovementioned piers, largely to prevent the docking of idle boats and other incidental expenses. In this respect, the port of Dairen stands unrivalled in the Orient.

Harbour expenditures of the S. M. R. Company in the fiscal year ending Mar. 31, 1938 were ¥11,486,000 and revenue ¥17,724,000, showing a net profit of ¥6,238,000.

Warehousing.—For particulars of the warehousing business of the S.M.R. Co., see under Chapt. on Commerce.

Railway Workshops.—One of the first undertakings that the Company took up on taking charge of railways in Manchuria was the construction of new railway workshops on an ex-

tensive scale, equipped with modern machines and facilities, at Shakako near Dairen, which works were completed and began operations in 1911.

The Shakako Railway Workshops, covering an area of 990,000 square metres and embracing 95 buildings with an independent water supply system, to-day ranks as one of the largest and best equipment in the Orient. There are machine and smith shops, iron and steel foundries and saw mills, boiler shop and girder shop, freight and passenger car shop and finishing shop, electric repair shop and power house, main office and general store, and all other necessary facilities. The magnitude of the works carried on at these shops may be gathered from the fact that, in 1933-34, they employed 3,978 employees and built or repaired cars or filled outside orders to the amount of 11,871,000 yen. It was here that the Company's new stream-lined super-express "Asia" was planned and built in its entirety. The Shakako Railway Workshops represent an investment of about nine million yen.

In addition to these railway workshops, the Company also maintains at Suchiatun a workshop where the preservative process is applied to sleepers, mine posts, and telegraph poles, and an electric shop at Dairen where telephone and telegraph machines are repaired and various electrical experiments are carried on.

Hotels.—The S.M.R. Co. has under its direct management 15 hotels, including the Yamato Hotels at Dairen, Hoshigaura, Port Arthur (2), Mukden, and Hsinking, the Chikushinkan at Fushun, the Goryukaku at Wulungpei hot springs, and the Fusokan at Peiping. These hotels represent an investment of five million yen and during the year 1933-34 registered 99,926 guests, showing a daily average of 274 persons.

Business Returns for 1937-38

Receipts of the South Manchuria Railway Company for the fiscal year ending Mar. 31, 1938 were returned at ¥355,048,139 as against expenditure of ¥281,118,644, leaving a balance of ¥73,929,494 as net profit. This is an increase of ¥23,755,523 as compared with the net profit for the previous fiscal year. The net profit in the fiscal year ending Mar. 1938 is the highest since 1932 in which year a net profit of 61,280,000 was realized, including interest amounting to some ¥42,000,000 on loans to the Ssuningkai-Taonan railway and other lines.

Rolling Stock and Workshop

With the steady growth of traffic, rolling

stock—locomotives, passenger and freight cars—has increased almost four-fold during the past twenty-four years. There were in 1932 in use 466 locomotives, 545 passenger cars and 8,172 freight cars, the total cars numbering 9,224 including other cars.

These shops have the capacity of executing repairs simultaneously on 27 locomotives, 36 passenger cars, and 130 freight cars, while at the same time constructing or repairing other railway materials, mining machinery, etc. The Shakako shops are among the largest not only in the Orient, but in the whole Pacific area. Rolling-stock to-day is practically all supplied by this great shop. In addition, important orders have been filled for the Chosen Government Railways and the Chinese Government Railways.

Varied Undertakings

The scale of business of the South Manchuria Railway Company is very extensive and its field is vast and varied. Besides the railway business, the concern is engaged in the construction and reconstruction of railways, harbour construction, and the improvement of the Dairen and Yingkow ports. The Dairen Steamship Company represents the marine side of the activities.

Next to railway, mining is one of its most essential lines of business. The Company has under its control the Fushun Coal Mine, the production of oil from shale, the Showa Steel Works, etc.

As to the cultural institutions, the South Manchuria Railway has made a striking achievement, introducing manifold facilities inseparable to modern city life in the cities along its tracks, viz., in Mukden, Changchun (former name of Hsinking), Antung, and about 20 other towns.

It may be said that the Company is directing the administration in those regions, with the exception of the police. It has under its management many hospitals, schools, and hotels. Prominent among the cultural institutions are the Central Research Institute in Dairen, which conducts scientific investigations of Manchurian and Mongolian products; the Geological Institute in Dairen; and the Agricultural experiment station at Kungchuling and elsewhere, all of which are making valuable contributions to the study of the abundant national resources in the fertile land.

Much has been done by the Company for the economic development of the forestry, mining and marine industries. In brief, the Company has always been the leader of cultural develop-

ment undertakings in Manchuria and Mongolia.

Thus the Company is doing a highly remunerative business in its proper line of business on the one hand, while, on the other, doing remarkable achievements in economic and cultural lines covering the wide field of Manchoukuo.

As on Mar. 31, 1938 the number of concerns to which the S. M. R. was affiliated totalled sixty-three, while subsidiaries in which the Company

has furnished the entire capital stock aggregated twelve in number. The Company has since 1916 adopted the policy of dividing its various enterprises under separate management. Among such enterprises may be mentioned the Dairen Steamship Company and concerns involved in public utilities.

The number of concerns in which the Company has put up part of, or the entire capital stock, is given below:

Table 6. Corporate Investments of the S.M.R.
(As on Sept. 15, 1938)

Cos.	Capitalization (¥1,000)		Of which owned by S. M. R. (¥1,000)		Ratio of shares held (%)
	Subscribed	Paid-up	Subscribed	Paid-up	
Manufacturing Industry:					
Dairen Dock & Iron Works.....	MY 4,500	3,200	4,500	3,200	100.0
Fushun Cement	5,000	5,000	2,500	2,500	50.0
Nippon Paraffin Refining	2,000	2,000	2,000	2,000	100.0
Dairen Ceramics	600	600	600	600	100.0
Mansyu Chemical Ind.	25,000	25,000	12,925	12,925	51.7
Dairen Industrial	500	250	254	127	50.8
South Manchuria Gas	10,000	10,000	5,000	5,000	50.0
Showa Steel	100,000	100,000	45,000	45,000	45.0
Shoko Glass	3,000	3,000	1,200	1,200	40.0
Manchuria Soya-bean Ind.	5,000	2,525	1,733	1,073	34.7
Toyo Nitrogen Ind.	5,000	2,000	1,500	600	30.0
Manchuria Electric.....	160,000	107,500	41,321	41,321	25.8
Manchuria Petroleum	20,000	15,000	2,500	2,500	12.5
Manshu Soda	MY 8,000	MY 6,000	MY 2,000	MY 1,500	25.0
Manchuria Spinning	5,000	3,750	1,250	938	25.0
Manchuria Salt Industry.....	MY 5,000	MY 2,500	MY 1,000	MY 500	20.0
South Manchuria Glass.....	100	300	50	50	16.7
Manshu Gosei Nenryo	MY 50,000	MY 10,000	MY 5,000	MY 1,000	10.0
Manchuria Soya-bean Pulp.....	MY 10,000	MY 5,000	MY 1,000	MY 500	10.0
Total	418,900	303,625	131,333	122,534	
Transportation & Warehousing:					
Dairen Steamship	25,700	14,450	25,700	14,450	100.0
Nichinan Warehouse	15,000	14,500	15,000	14,500	100.0
Dairen City Transportation.....	5,000	4,400	5,000	4,400	100.0
Kokusai Unyu	5,000	3,400	5,000	3,400	100.0
Fukusho Labor Supply	1,800	1,800	1,800	1,800	100.0
Yingkow Water Works	1,000	1,000	660	660	66.0
Manchuria Aeronautical	MY 13,970	MY 13,970	MY 2,550	MY 2,550	18.2
Total.....	67,470	53,520	55,710	41,760	
Mining:					
Santo Mining.....	5,000	2,250	2,799	1,260	56.0
South Manchuria Mining.....	3,600	1,350	1,805	766	50.1
Manchuria Mining Development	MY 5,000	MY 5,000	MY 2,500	MY 2,500	50.0
Fuchow Mining	2,000	1,000	1,000	500	50.0
Daiman Gold Mining	200	50	100	25	50.0
Total	15,800	9,650	8,204	5,051	
Commerce:					
Manchuria Live-stock	MY 300	MY 300	MY 300	MY 300	100.0
Toei-kaku	25	25	15	15	60.0
Hsinking Exchange	MY 1,000	MY 250	MY 514	MY 129	51.4
Nichinan Trading	MY 10,000	MY 6,000	MY 5,100	MY 3,060	51.0
Tangkangtsu Hot Spring.....	1,000	250	506	126	50.6
Manchuria Market	400	400	200	200	50.0
Antung Market	165	165	83	83	50.0
Hsinking Market.....	100	100	50	50	50.0
Chinchou Market	50	50	25	25	50.0
Pig-Iron Joint Sales	1,000	250	840	85	34.0
Dairen Fire & Marine Ins.....	2,000	500	665	166	33.3
Harbin Exchange	MY 2,000	MY 1,200	MY 250	MY 125	12.5

Cos.	Capitalization (¥1,000)		Of which owned by S. M. R. (¥1,000)		Ratio of shares held (%)
	Subscribed	Paid-up	Subscribed	Paid-up	
Manchuria Gun Powder Marketing	M ¥ 500	M ¥ 500	M ¥ 50	M ¥ 50	10.0
Fushun Market	100	25	10	8	10.0
Total	18,640	10,015	8,107	4,416	
Colonization, Agriculture & Forestry:					
Kochon Koshi	10,000	10,000	10,000	10,000	100.0
Dairen Agriculture	10,000	5,000	10,000	5,000	100.0
Mansen Mine-Post	1,500	600	1,500	600	100.0
Satumen Lumbering	M ¥ 4,800	M ¥ 4,800	M ¥ 2,444	M ¥ 2,444	50.9
Nichifutsu Taiman Jigyo	100	100	50	50	50.0
Sen-Man Development	20,000	8,000	5,000	2,000	25.0
Manchuria Forestry	M ¥ 5,000	M ¥ 3,750	M ¥ 1,250	M ¥ 938	25.0
Manchuria Colonization	M ¥ 50,000	M ¥ 33,300	M ¥ 10,000	M ¥ 6,660	20.0
Total	101,400	65,550	40,244	27,692	
Real Estate & Civil Engineering:					
Manchuria Real Estate	10,000	2,500	10,000	2,500	100.0
Harbin Real Estate & Bldg.	500	500	500	500	100.0
Gensan Beach Recreation	150	150	100	100	66.7
Far East Civil Engineering	5,000	1,250	2,510	628	50.2
Hanshin Harbour	10,000	3,700	4,000	1,480	40.0
Anshan Immovables & Trust	1,000	1,000	426	426	42.6
Total	26,650	9,100	17,537	5,634	
News Agency & Communications:					
Manshu Eiga Kyokai	M ¥ 5,000	M ¥ 2,500	M ¥ 2,500	M ¥ 1,250	50.0
Manchuria Public Information	M ¥ 3,000	M ¥ 2,500	M ¥ 1,148	M ¥ 1,148	38.3
Manchuria Telegraph & Telephone	50,000	36,250	3,500	1,750	7.0
Total	58,000	41,250	7,148	4,148	
Grand Total	706,860	492,710	268,283	211,236	

References:

Table Nos.: 1-6 Researches of the S. M. R. Co.

CHAPTER XXVII
ECONOMIC POLICY

ECONOMIC POLICY

The economic development of Manchuria is a question of the first importance to both Manchoukuo and Japan. On its success will depend to a great measure the well-being of the two countries. Plans for opening up the resources of the new state, therefore, have received the keenest interest and attention. The Japanese Government, for one, has shown its determination to shoulder a large degree of the responsibility and material burdens to assure Manchoukuo's industrial future. The investments of Japan in Manchoukuo and in the Kwantung Leased Territory already amount to a stupendous figure and the best brains have been marshalled to assist the Manchurian authorities in formulating the plan for economic development.

In surveying the various plans, one point stands out prominently, namely, the immense scale of the projects under contemplation and the speed with which they will be undertaken.

LAW CONTROLLING IMPORTANT INDUSTRIES

On May 1, 1937 the Government of Manchoukuo formally promulgated as effective on and after May 10 the much-heralded Law Controlling Important Industries which, it is claimed, is so designed as to afford juridical order to the structure of what is termed "controlled economics."

The drafting of this important law which conforms to the fundamental industrial policy of the Government dates back to March, 1936.

The law draws a clear-cut line of demarcation between controlled and free enterprises. The most salient characteristics of the law are first, the adoption of a licensing system applicable to industries coming under it, second, the authorization of the Government to issue to the affected industries any orders deemed necessary for the welfare of the public and for the State control of such industries and, third, the bestowal upon the Government of the right to control or supervise the activities of these industries, to call for reports upon them or to inspect conditions whenever necessary.

Nineteen different industries are affected by

In this connection, the accomplishments since 1932 provide a brilliant example of what can be accomplished by united effort. The construction of some 4,000 kilometers of new railway lines, the yen-yuan exchange agreement, and the balancing of the international payments of the two countries on a common basis, the construction work on the new capital at Hsinking, the progress achieved in gold mining and other industries are instances of some of the successes that have been attained so far.

From an international point of view, the present economic policy of Manchoukuo has resulted in a larger volume of foreign trade in which practically all countries have benefited. The total turnover has increased from roughly 956,000,000 yuan in 1932 to 1,533,000,000 yuan in 1937. The most remarkable phenomenon, no doubt, has been the increase in trade with Japan due largely to the heavy capital investments Japan has made in Manchoukuo which amounted for the years 1932 to 1937 inclusive, to over 1,500 million yen.

this law, it being announced that all other enterprises will be treated as free from the point of view of totalitarian economics. Simultaneously with the promulgation of the new law, all decrees and regulations thus far issued by the Department of Industry in conjunction with free enterprises were all rescinded, but the Government earnestly appeals to their proprietors more strictly to observe their moral obligations in order not to fall into the evils of capitalism.

Industries Under New Law

In an Imperial Ordinance issued on May 1, 1937 nineteen industries were defined as being affected by the new Industrial Law. The nineteen industries are as follows:—

1. Manufacture of arms and ammunition,
2. Manufacture of aircraft,
3. Manufacture of automobiles,
4. Production of liquid fuel (including mineral oils and pure alcohol) and refining of iron, steel, aluminium, magnesium, lead, zinc, gold, silver and copper (excluding the wet process of refining gold and silver).

5. Coal-mining enterprises (excluding mines producing less than 50,000 tons of coal annually).
6. Manufacture of woollen piecegoods (excluding handiercraft piecegoods).
7. Cotton spinning.
8. Manufacture of cotton piecegoods.
9. Hemp and cotton manufacturing enterprises (producing more than 50 tons annually).
10. Flour milling (producing more than 500 sacks daily).
11. Manufacture of beer.
12. Production of sugar.
13. Manufacture of pulp.
14. Tobacco manufacturing enterprises (producing more than 10 million cigarettes annually).
15. Production of soda (excluding enterprises producing natural soda).
16. Manufacture of fertilizers (including sulphate of ammonia, ammonium nitrate, superphosphate of lime and calcereous nitrate).
17. Oil-refineries (operating more than 15 re-sinificating machines or compressors).
18. Production of cement.
19. Manufacture of matches.

The State Ministers who are to control these nineteen industries are also defined in the ordinance. Enterprises producing arms and ammunition or aircraft are to come under the supervision of the Minister of Industry (in the region ruled by the Department of Mongolian Administration) and the Minister of Defence. Industries manufacturing liquid fuel and matches are to be supervised by the Minister of Industry, (in the region governed by the Department or Mongolian Administration) and the Minister Finance. All the other laws are to be placed under the exclusive control of the Minister of Industry.

The ordinance was enforced on May 10, 1937 simultaneously with the enactment of the new law.

GOVERNMENT'S STATEMENT*

The ultimate aim of the important Law Controlling Key Industries promulgated May 1, 1937 is to stabilize the economic life of the nation by further consolidating, on the one hand, the foundations of the so-called Japan-Manchoukuo economic bloc and on the other, by perfecting national defense.

The statement announces that the utmost prudence has been used by the Government authorities in designating the kinds of industry

to be affected by the new law with an eye especially to the cementation of the Japan-Manchoukuo economic bloc, adding that State control of the nineteen industries named is an absolute necessity for this purpose. Reasserting the Government's fundamental policy aimed at the development of what are termed "controlled economics," the statement emphasizes that the promulgation of the present law has been found imperative to develop domestic industries along the lines of the said policy.

It declares, however, that the Government does not think it necessary to control all enterprises, industrial or agricultural, alike. In careful consideration of the importance and characteristics of every enterprise, it explains, the application of the present law has been limited to the nineteen kinds of enterprises mostly relating to the production of industrial and mineral commodities.

The statement further declares that the nineteen industries defined as coming under the law are of tremendous importance for the sound development of national economy and the perfection of national defense. The principles of the law, it goes on to state, are:

1. As regards enterprise of importance from the standpoint of national defense and those closely related to national economy, the Government will continue its fundamental policy of entrusting one enterprise to one corporation or of treating these enterprises as special ones under State guidance and control with a view to ensuring their sound development.

2. With reference to enterprises for the manufacture of finished commodities from raw materials being yielded at home, the Government by enacting the present law plans to adjust the relation between enterprises of this sort and those producing such raw materials.

3. In the case of those important enterprises whose productivity is too big for the actual consumption of their manufactures, the Government intends to mediate among them to cooperate closely in the satisfactory adjustment paying especial consideration to the welfare of the public.

Along with these three fundamental principles, the statement announces, the Manchoukuo Government desires to facilitate the wholesome development of all important industries as in the case of Japan. The statement also calls attention to the fact that through the new law, the Government does not intend to control the internal activities of enterprises to be affected by the law such as their structure or finance as it does in the case of so-called "special

corporation." In other words, the new law is designed only to control the external activities of these enterprises.

Expressing the Government's belief that the enactment of the present law will play an exceedingly important role in the progress of the Government's policy aimed at the development of controlled State economics, the statement declares that the significance of the law can

THE 5-YEAR INDUSTRIAL PLAN

Manchoukuo had entered on the first of the five years over which her industrial expansion plan had been launched when the North China incident took place in July, 1937. The subsequent developments, as may be expected, gave rise to misgivings in Manchoukuo whether Japan would be in a position to undertake the huge programme involving an outlay of 2,350 million yen. These apprehensions were deepened when the debenture scheduled for an early issue at the time in Japan was cut in half. On the other hand, there was a contrasting body of opinion which held that the developments in North China would be factors making for stressing the importance of the economic undertakings in Manchoukuo. As things have worked out in Manchoukuo, the latter view has proved correct in more than one respect. For while the hostilities have been in progress on Chinese soil, the economic cooperation between Japan and Manchoukuo has assumed an increasingly closer character. In point of finance, economy and natural resources the two countries are now more closely united than ever.

Re-examination of Manchoukuo's Economies

Manchoukuo's sense of uncertainty grew from the apprehension that Japan, with her influence extending in North and other parts of China, may find more attraction for her financial and industrial operations elsewhere than Manchoukuo. There was a general impression Japan might have a more open field for her investment in North China. This thought sprang in most part from the financial policy Manchoukuo, in her early days, followed against the predatory capitalism that might have crossed the sea. As a matter of fact, however, the position of Manchoukuo has been more clearly defined in the economic outlook of Japan with regard to North China. To put the whole thing in a nutshell, the China war has given definite direction to the plan under which Manchoukuo is to be developed economically and industrially, as made plain in the newly revised 5-year industrial ex-

hardly be exaggerated at the present time when the Empire's second five-year industrial program is making headway. It concludes by appealing to the nation fully to understand the importance of the new law and to co-operate wholeheartedly with the Government in the satisfactory enactment of it for the benefit of the nation itself.

pansion plan.

As stated in more detail later, the 5-year industrial plan on which Manchoukuo embarked in 1937 has been altered under the impact of the China war. The plan as it was originally launched laid the main emphasis upon the internal industrial development of Manchoukuo, her relations with Japan being adjusted on that basis. But the current industrial plan in its revised form mainly stresses the consideration of Japan's industrial expansion, Manchoukuo's own industries having assumed a role of secondary importance. Also in point of the scope of its operation, the new plan has been considerably enlarged as indicated by the capital outlays envisaged. For instance, whereas the former programme involved an outlay of 2,350 million yen without any possibility of exceeding it by more than three or four hundred millions, the new programme will call for a capital outlay of at least 4,800 million yen, the objectives being the production of not only coal and iron but liquid fuel on a scale much more ambitious than originally planned. It is obvious that the position of Manchoukuo within the tripartite economic and industrial combination of Japan, Manchoukuo and China has been enhanced to a marked extent.

The Revised Economic Policy

Manchoukuo has since her earliest days managed her economies in concert with Japan. As the latter intensified her control over her economic and financial operations so Manchoukuo has done with hers, as may be seen in the matter of the foreign exchange or of her managed external trade. The balancing of their international accounts has been done on a common basis, the same policy having resulted in the present exchange agreement between Japan and Manchoukuo. When Japan imposed a license system on import exchanges exceeding ¥100, Manchoukuo followed suit by fixing the limit at ¥1,000, which amount, however, was later changed to ¥100 as in Japan. The adjustment

and regulation of imports and exports are directed in relation to the position of the two countries with regard to third countries. Thus, from an external point of view, the economies of Manchoukuo are well adjusted to the current conditions in Japan.

From an internal point of view as well, efficient teamwork is in evidence. For instance, since the military outbreak in China the state control has been strengthened over iron and wheat flour. Now the new industrial plan is certain to call for huge supplies of construction materials, labour and technical forces. But Japan will hardly be in a position to meet these requirements. In view of the heavy demands for construction materials which are bound to force up prices, it is now thought necessary for Manchoukuo to enforce a price control policy in an intensive form. It was also from the same consideration that the Japan Industrial Company was recently brought under the law of Manchoukuo. This meant a definite revision of Manchoukuo's policy that each individual branch of industry should not be undertaken by more than one corporation in the country. Because the Japan Industrial Company, now renamed the Manchuria Industrial Development Corporation, is a holding company with a wide range of enterprises under its control, the transference of this composite enterprise from Japan meant an acceptance on the part of Manchoukuo of the new conditions imposed upon her, making a revision of her managed economies necessary, and an acceptance on her part also of the principle that higher efficiency and better results would be achieved where the bureaucracy shows decent regard for other points of view.

The Revised 5-Year Plan

It must be admitted that when the original 5-year plan was made public it attracted attention as a theoretical rather than a practical proposition. This was in the first place because the plan itself seemed too extravagant and, secondly, because there was not an adequate objectivity of view with regard to the conditions which called for such grandiose undertakings. The necessity for productive expansion would hardly have been driven home to most industrialists in Japan but for the current China war. Under the impact of the military incident Japan was compelled to quicken the tempo of her own 4-year industrial plan which was just about getting under way in concert with the Manchoukuo plan. The new situation left her no choice but to develop her heavy industries under a plan common to the two countries. In

these circumstances the scale of capital outlay has been extended from 2,350 million yen to something like 4,800 million yen. The scope of the extension has also been broadened by the addition of machine tools and chemical fertilizer. This plan will appear even more impressive when it is seen that Manchoukuo's current budgetary programme is a trifling affair of 304 million yen.

The revision of the original 5-year plan was approved at the Japan-Manchoukuo joint conference held in Tokyo in March-April, 1938. The objectives were stated as follows: "(1) In consideration of the newly developed international conditions, especially of the East Asiatic bloc enlarged through the China Incident, the need for productive expansion for the joint unit of Japan and Manchoukuo, with due regard for North China, shall be recognized, the enlargement and revision of the plan being made according to the resources and other conditions in Manchuria. (2) From these considerations the main emphasis will be laid upon the mining and manufacturing industries. With regard to agriculture and livestock raising, the first importance will be given to the matter of establishing definite productive standards under an intermediate plan preliminary to the permanent agricultural policy to be framed for the security of native life. In accordance with these considerations, the plan should be so framed as to meet in some measure the needs of national defence."

The Manchoukuo Government, calling a special joint Japan-Manchoukuo meeting on May 14, 1938 at Hsinking, brought forward the plan for revision on the same lines. The meeting was attended by representatives of the Kwantung Army, the Special Corporations, the Manchoukuo Government, the South Manchuria Railway Company, the Manchuria Industrial Development Corporation, etc., who were equally called upon to cooperate for the successful prosecution of the new industrial expansion plan.

Mineral and Manufacturing Industries

Pig Iron & Steel.—The prospective output of pig iron under the new 5-year plan has been raised from 2,400,000 metric tons to 5,000,000 metric tons. The output of steel ingots and steel products are now to be approximately 3,500,000 metric tons and 2,000,000 metric tons respectively. While it is not clearly revealed what proportion of these products is to be supplied to Japan, the quota of pig iron set for that purpose appears something like 2,000,000 metric tons a year. These proposed undertak-

ings are mainly based upon the extensive developments of the Showa Steel Works and the Penhsu Foundry. The plan is also to be reinforced by the developments of the rich resources recently found in Tungpientao.

Coal.—The plan for coal production has been advanced from 25,500,000 metric tons to 38,000,000 metric tons in order to meet the envisaged increase in demand for steel and liquid fuel manufacture as well as for power plants. The amount to be supplied to Japan after 5 years is 6,000,000 metric tons per year. The plan is based upon the development of the Fushun mine of the South Manchuria Railway Company and a number of mines controlled by the Manchuria Mining Company. The Coal Control Committee announced in May, 1938 the estimated output for that year to be 17,500,000 metric tons, an increase of 3,400,000 metric tons over 1937.

Electric Power.—The revised objective of power enterprise is 2,600,000 kilowatts, to be generated about equally by water and coal. This is about a 2-fold increase as compared with the original objective of 1,200,000 kilowatts. The main sources are the rivers Yalu and Second Sungari.

Wood Pulp.—The production of wood pulp is to be advanced from 120,000 metric tons to 400,000 metric tons a year. In addition to wood, reeds and bean husks are also to be used for the making of rayon raw material, the former by the Kanegafuchi Spinning Company near Yingkow and the latter by a new enterprise at Hukui.

Gold.—The output of gold is to be brought up from 200 million yen to 300 million yen for the five year period, emphasis being laid upon the development of new mines.

Industrial Salt.—The manufacture of industrial salt is to be raised to approximately 1,000,000 metric tons. With regard to aluminium, magnesium, zinc, lead, copper, etc. generally a 2-fold increase plan is being contemplated.

Agriculture

Agriculture and livestock raising are to be promoted chiefly with a view to the material interests of the rural population. The agricultural administration is to be directed with regard to the development of a cooperative spirit between indigenous workers and Japanese settlers. The direction of agricultural development is in the hands of cooperatives whose policy has not always been as successful as desired in 1937.

Capital Resources

The capital requirements for the second and subsequent years of the plan are estimated at 4,800 million yen. The above amount is classified as follows: 700 million yen for iron and steel; 300 million yen for coal; 500 million yen for electric power; 1,000 million yen for coal liquefaction; 1,300 million yen for the mechanical, chemical and other industries; 140 million yen for agriculture and stockbreeding, 640 million yen for transportation and communications; and 220 million yen for immigration.

Of this Japan is to furnish some 1,400 million yen and Manchoukuo 2,100 million yen, the special equipment and materials to be obtained from external sources being estimated at roughly 1,300 million yen. The authorities have expressed their confidence of being able to finance the proposed external purchases through trade and exchange arrangements to be made with other countries. The promotion of export trade and gold production will also be undertaken to reinforce the country's trade position abroad. On the other hand the inducement of foreign capital, including constructive and productive materials and technique, is thought to depend upon two conditions, namely, (1) Japan's decisive victory over China; and (2) political and productive conditions in other countries.

Table 1. Estimated Capital Outlay for Original and Revised Five-Year Industrial Plan, 1937-1941

	Original Plan (million yen)	Revised Plan (million yen)
Mining and Industry:		
Iron and Steel	230	700
Coal	150	300
Electric Power	210	500
Coal liquefaction	320	1,000
Mechanical, Chemical, etc.	310	1,300
Total	1,220	3,800
Agriculture & Stockbreed- ing	130	140
Transportation & Com- munications	1,000	640
Immigration		220
Grand Total	2,350	4,800

Table 2. Suppliers of Capital for Original and Revised 5-Year Industrial Plans, 1937-1941

	Original Plan (Million yen)	Revised Plan (Million yen)
Suppliers:		
S.M.R. Co.	900	.....
Manchoukuo Govt.	700	2,100
Japanese " .....	.....	1,400
Foreign Countries ....	.....	1,300
Others (chiefly special concerns)	750	.....
Total	2,350	4,800

Table 3. Estimated Annual Production in Closing Year of Original and Revised 5-Year Industrial Plans, 1937-1941

	Original Plan (Unit: 1,000 metric tons)	Revised Plan (Unit: 1,000 metric tons)		Original Plan (Unit: 1,000 metric tons)	Revised Plan (Unit: 1,000 metric tons)
Pig Iron	2,400	5,000	Gold (total amount for 5 years)	200,000 (b)	300,000 (b)
Steel	2,225	3,500	Pulp	120	400
Steel Materials .....	.....	2,000	Soda Ash	72	.....
Coal	25,500	38,000	Asbestos	5	.....
Electric Power	1,200 (a)	2,600 (a)	Lead	124	.....
Liquid Fuel	1,350	2,450	Automobile	4,000 (c)	.....
Salt	870	1,000	Aeroplanes	240 (d)	.....

Note: (a) In 1,000 kilowatts. (b) In ¥1,000. (c) Cars. (d) Aeroplanes.

RESULT OF THE FIRST YEAR OF THE 5-YEAR PLAN

It may be of interest to review what has been actually accomplished in the first of the five years set for the industrial expansion. It should be noted above all that the China war, although occurring in the midst of the year in question, namely in 1937, had no material effect on this plan, as far as its progress was concerned. While Japan's wartime requirements had incontestably their effects upon her supply of capital, building materials and raw materials, the plan as a whole was carried through as originally conceived. Manchoukuo being in a backward stage of development, the first year was chiefly devoted to the business of laying foundations. This was especially conspicuous in the coal liquefaction enterprise; for the whole business had to start with the selection of a site to the placement of orders for machinery. From the financial point of view, all this foundation work for the first year involved a total outlay of 450 million yen, which was provided by the Manchoukuo Government and the participating "special corporations."

In the fields of mining and metallurgical industries, especially iron and steel which form the most important part of the current programme, and in coal-fired electricity and soda ash progress has been made as originally proposed. In railway construction, road and harbour works, and provision of communication systems the proposed plan was carried through generally on time, despite the wartime drain on labour and material resources.

The foundations for livestock raising and agriculture were completed in view of their close bearings upon daily life. But in the matter of spreading the idea of integrating the crops the results achieved so far are not so successful, because of the incompetency of the men employed for that purpose and also on account of the adverse conditions imposed by floods.

Next, in the field of mining and manufacturing industries mention should be made, first of all, of the Showa and the Penhsihu Iron Works. The former at once set about their two successive plans, the third and the fourth, under which a pair of 700 ton furnaces and another pair of furnaces of equal capacity are to be installed. Now that these successive plans are so far advanced as to promise their completion in the year 1940, the production of pig iron to the amount of 700,000 metric tons, and of iron and steel to that of 600,000 metric tons, was successfully accomplished for the first year as originally proposed. The output of coal for the first year was 3 million metric tons as against the 4 million proposed. This was partly due to the great emphasis laid on the opening of new mines rather than the existing deposits and partly because the business year of the Manchuria Coal Mining Company did not coincide with the calendar year, on which the statistical data were based.

The output of gold, which is to be 200 million yen for the 5 years, amounted to approximately 12 million yen as against the 14 million yen set for the year in question. This branch of the metallurgical industry is thought promising because of the extensive plan to be launched by the Manchuria Mining Company, one of the affiliated enterprises of the Manchuria Industrial Development Corporation. The output of 600 million yen proposed under the revised plan is thought a goal by no means too difficult to attain.

The manufacture of liquid fuel is represented by the Fushun plant operating with oil shale from open pit mining, the Mitsui enterprise at Chinchow and the Chemical Oil Industrial Company's plant at Ssupinghai. But none of these establishments were ready to turn out produce for the first year, namely 1937, their work being confined to foundation work. The Mitsui

enterprise was originally planned to be placed closer to the Fushun coal mine, but Chinchow is the present choice. The plans to liquefy coal at a point in Chientao and at Sansing have been abandoned, while Shulan and Ilan in Kirin Province have been added to the prospective list. The Manchuria Synthetic Fuel Company under the control of the Mitsui interests has completed its foundation work at Chinchow. The Chemical Oil Industrial Company at Ssupinghai, making better progress, has set about installing the machinery, their product being expected in the market in the autumn of 1938.

JAPAN-MANCHOUKUO EMERGENCY ECONOMIC CONFERENCE

With the object of drawing up a joint plan for material mobilization and the establishment of war-time economy comprising Japan and Manchoukuo, an important conference was held on July 2, 1938, composed of officials of both Governments, as a result of which the following unanimous decisions were reached:

1. In view of the intimate relations between Japan and Manchoukuo, the Manchoukuo Government shall regulate the economical consumption of materials and the use of substitutes in consonance with the Japanese war-time economic policy.

2. In view of the large requirements of materials necessary for national defence, Japan will be obliged to restrict exports to Manchoukuo which make no contribution to the improvement of her balance of international payments, hence the necessity of consumption control in Manchoukuo.

3. Both Governments shall join to adjust their industrial plans.

4. In order to meet the situation created by the import expansion in Manchoukuo and the adhesion of North China to the yen bloc, both Governments will again examine the present exchange agreement between Japan and Manchoukuo.

Supplies to Japan from Manchoukuo.—At an emergency economic conference, held by the Manchoukuo Government on July 23, 1938, composed of civil and military officials and leaders of special companies in Japan and Manchoukuo, an executive plan for 1938 was decided, calling for the following products to be supplied to Japan by Manchoukuo during 1938:

1. **Steel and Pig Iron.**—Pig iron and semi-products, 350,000 tons. Low phosphorous pig iron, 120,000 tons.

2. **Coal.**—An additional volume of 500,000

to be added to the estimated supply for 1938 of 2,880,000 tons.

3. **Pulp supply,** 30,000 metric tons.

4. **Increase in supply of lead, zinc, copper, heavy oil, asbestos, wool, hemp, salt, ammonium sulphate, livestock fodder, etc.**

Japanese Supplies to Manchoukuo.—1. Steel consumption for 1938 in Manchoukuo is estimated at 950,000 tons, the supply of which is apportioned respectively as follows: Manchoukuo, 350,000 tons; Japan, 350,000 tons; foreign countries, 250,000 tons. The present conference to decide on the increase of Japanese supplies to 392,000 tons and the decrease of foreign supplies to 130,000 tons.

2. When companies in Manchoukuo place an order in Japan for materials necessary for the Manchoukuo five-year industrial development plan, they should report beforehand to the Manchoukuo Government.

3. The supply of necessaries, such as wheat flour, cotton yarn and cloth, etc., will not be restricted.

Economic Collaboration

The basic principle for economic collaboration between Manchoukuo and Japan calls for the integration of the economic organs of the two countries, wherever possible, with a view to diminishing or entirely eliminating the costly outlays of duplication and destructive competition.

Cooperation in the various industries is bearing fruit. Such enterprises as the liquefaction of coal, gold mining and the projected automobile manufacturing industry of Manchuria disclose results of united effort between the Manchoukuoan and Japanese authorities. The establishment of a large number of concerns financed with Japanese and Manchoukuoan capital, including the Manchuria Industrial Development Corporation, is guided with the principal of strengthening the so-called bloc economy.

JAPANESE EMIGRATION

Another important subject that is brought to the fore in Japan-Manchoukuo economic relations concerns the feasibility of Japanese emigration to the new Empire. Since 1933 the Japanese Government through the Department of Overseas Affairs has strenuously pushed the projects to implant Japanese settlers in Manchoukuo and several batches of emigrants have sailed to the continent. How successful such emigration will be remains still a question of the future. Due cognizance has been taken of

the lower standard of living of the Manchurians by the Japanese emigration authorities and the policy of those in charge has been to put the

Japanese settlers in such work as are not in direct competition with those of the Manchurians at large.

JAPANESE INVESTMENTS

No detailed figures on Japanese investments in Manchuria have yet been compiled, and what figures that are obtainable are but rough estimates. However, the Manchurian Affairs Board has since 1932 recorded the principal Japanese

investments.

Total Japanese investments outstanding as at the end of 1937 is estimated at ¥3,105,989,000. The trend of investments is shown as follows:—

Table 4. Japan's Investments Outstanding in Manchuria

Year	Amount	Year	Amount
1902.....	G.\$ 1,000,000 (a)	1930.....	¥1,600,000,000 (b)
1914.....	G.\$ 219,600,000 (a)	1937.....	¥3,105,989,000 (c)

Note: (a) C. F. Remer's estimate which includes Japanese investments in China as well as in Manchuria.
(b) Research Office, South Manchuria Railway Company.
(c) Research Office, South Manchuria Railway Company up to end of 1930; from 1931 to 1937 by Manchurian Affairs Board. The total does not include the "Manchurian Incident Expenses" of Japan which aggregated ¥1,310,179,000 at the end of 1937.

The principal Japanese investments made since the establishment of the state of Manchoukuo in 1932 is given below:—

Table 5. Principal Japanese Investments Since 1932
(In 1,000 yen)

	1932	1933	1934	1935	1936	1937	Total
(1) Call on subscription to S.M.R. Co. Share	25,000	61,900	36,000	36,000	36,000	56,000	260,000
(2) Net increase of debentures S.M.R.	40,000	21,200	130,000	133,000	155,000	21,000	601,000
(3) Borrowings of S.M.R.	—	—	—	75,000	(-75,000)	84,000	84,000
(4) Opening of S.M.R. holding Share	—	—	—	340	17,205	—	17,645
(5) Net increase of debentures and borrowings of affiliated cos. of S.M.R.	—	1,700	30,450	38,875	31,750	20,050	122,825
* (a) South Manchuria Electric Co.	—	—	10,000	—	—	—	10,000
† (b) Manchuria Chemical Industry Co.	—	—	12,000	—	(-6,250)	4,050	9,800
* (c) Manchuria Telegraph & Telephone Co.	—	—	8,000	7,000	—	8,000	23,000
* (d) Manchuria Colliery Co.	—	—	—	10,000	—	—	10,000
† (e) Manchuria Colliery Co.	—	—	—	—	5,000	(-5,000)	13,000
* (f) Manchuria Electric Co.	—	—	—	10,000	15,000	—	25,000
* (g) Showa Steel Works	—	—	—	10,000	18,000	—	28,000
(h) Others	—	1,700	450	1,875	—	—	4,025
(6) Capital paid-up for newly Created Companies	12,203	38,345	65,225	21,983	36,046	34,144	207,946
(7) Capital called in by Companies	—	—	—	—	23,394	50,719	74,113
(8) Manchoukuo National Loans	20,000	—	—	(-2,000)	(-2,000)	(-2,000)	14,000
(9) Manchoukuo foundation loan	—	30,000	—	(-2,000)	(-4,000)	(-5,000)	18,000
(10) North Manchuria Railway loan	—	—	—	60,000	6,000	—	120,000
(11) Borrowings for North Manchuria Railway	—	—	—	15,400	(-15,400)	38,360	38,360
(12) Manchoukuo Special Enterprise loan	—	—	10,000	—	—	—	10,000
(13) Bonds for financing industries	—	—	—	—	—	45,000	45,000
Total	97,203	151,745	271,675	378,593	262,995	341,273	1,602,989

Note: * Debentures. † Borrowings. (-) Amount of redeemed.

The principal Japanese investments classified by industries in Manchuria is tabulated as follows:—

Table 6. Principal Japanese Capital Investments Outstanding by Kinds of Industry
(Amount in ¥1,000)

	1931			1935			1936		
	Amount	%	Index	Amount	%	Index	Amount	%	Index
Agr. & Forestry	9,000	0.9	93.0	9,705	0.5	100	9,892	0.4	102
Fishery	35	—	2.4	1,407	0.1	100	1,407	0.1	100
Mining	3,475	0.3	7.2	48,050	2.5	100	48,275	2.1	100
Mfg. Industry	90,936	9.2	24.0	379,153	19.9	100	533,233	23.2	141
Transportation	803,179	81.9	62.0	1,290,030	67.9	100	1,430,482	64.1	111
Banking & Commerce	56,981	5.8	58.0	97,746	4.1	100	102,195	4.5	105
Others	17,461	1.7	23.0	76,320	0.1	100	105,454	4.6	138
Total	981,067	100.0	52.0	1,902,411	100.0	100	2,230,938	100	117

Japanese and Manchoukuo Companies

The number of Japanese companies in Manchuria at the end of 1936 totalled 2,505 with a paid-up capital of ¥1,051,103,000. The Manchurian companies numbered 224 with a paid-up capital of ¥409,647,000.

The special and quasi-special concerns are financed by the S.M.R. Co., and other Japanese interests to a considerable extent. The same is the case with ordinary enterprises. For instance, the Mitsui interests are represented by the Man-

chou Soya Bean Industry, the Japan-Manchoukuo Flour, the Manchou Chemical Industry, the Mukden Arsenal, the Manchou Pulp; the Mitsubishi interests by the Manchou Chemical Industry, the Japan-Manchoukuo Magnesium, the Daido Cement, the Japan-Manchoukuo Flour, the Manchou Beer; the Sumitomo interests by the Manchou Magnesium; the Okura by the Japan-Manchoukuo Flour, the Mukden Arsenal; the Oriental Development Co., by the Japan-Manchoukuo Flour, the Asano Cement by the Daido Cement.

MANCHURIA INDUSTRIAL DEVELOPMENT CORPORATION

The object of the Manchuria Industrial Development Corporation is to invest in and supervise the management of various companies established for the purpose of developing iron mining, light metal, automobile manufacturing, aircraft manufacturing, coal mining, and other industries in Manchoukuo. The Corporation may also invest in gold, zinc, lead, copper and other mining industries in Manchuria as well as in various other domestic and foreign enterprises which were given approval by state ministers of those departments concerned. The Corporation may also act as a promoter for the establishment of various companies which aim at developing the aforementioned industries and may accommodate those companies with funds or guarantee their liabilities.

By merging or newly establishing various subsidiary companies, the Manchuria Industrial Development Corporation will undertake the exploitation of the three largest mineral resources, name, iron, coal and light metal, as well as other mineral industries in Manchuria. It will manage the automobile and aircraft manufacturing industries and is entitled to promote any other industry with the approval of state ministers concerned.

The transference of the Nippon Industrial Company, with its widely ramified affiliations, to Manchoukuo and the formation of the Manchuria Industrial Development Corporation in December, 1937 may be explained by two main reasons.

In the first place, the economic ideology enforced up to that time in Manchuria had been found unsatisfactory. It was found necessary to adjust her industries more in line with the conditions in Japan in order to effect a smooth and logical cooperation between the two countries. Idealism had to be modified to fill the gap which would not have been so much of a handicap under ordinary circumstances.

In the second place, under the increasing

pressure of productive expansion Manchoukuo had to turn to the development of internal resources and enterprises. Prior to the China incidents her main industries had been mostly dependent upon the industries of Japan. When the 5-year industrial expansion plan was launched it began to be seen that Manchoukuo's dependence upon Japan would have to be reduced.

The conditions imposed by the China conflict made an early decision in this matter imperative, and the exploitation and development of Manchoukuo's natural resources now emerged as an urgent issue. In order to accomplish it a coordinated plan had to be evolved. The policy hitherto followed of placing one major industry under one company failed to make for the integration and coordination of various enterprises. The unwritten law of restricting profit dividends was also found objectionable. The consideration of an increase of material production had to be placed before ideals of managed economies. From this necessity the heavy industries of the country had to be transferred from an individualist to a composite system. Thus Manchoukuo is now neither to step ahead nor lag behind Japan in the prosecution of her industrial plan. The two have been brought into a harmonised combination.

A further advantage which will accrue as a result of the formation of the new concern is that by using the Nippon Industrial Company as its nucleus, the Manchuria Industrial Development Corporation would acquire the shareholders of the former company, which numbered as much as 54,574 in November, 1937, as well as its negotiable security holdings in its subsidiary companies. It will also receive the benefit of the experience and technique gained by the personnel of the Nippon Industrial Company and its subsidiaries during their many years of activity. The above-mentioned benefit becomes the more valuable when viewed from the fact that the subsidiary com-

panies operated by the Nippon Industrial Company, are all of national importance and that many of them are quite similar to the heavy industries planned by the Manchoukuo Government.

Business Results for 1st Half of 1938

The Manchuria Industrial Development Corporation announced the accounts of its business for the first half of 1938, ending May 25, which is the first statement of accounts to have been made by it since its transformation. The account of profits and expenses of the company for the period is given in an accompanying table.

The item of grant-in-aid from the Manchoukuo Government in the table is based on the law of Manchoukuo concerning the supervision of the company, which provides that in case the total net profits of the company from its undertakings in Manchoukuo fail to reach 6 per cent. of the total amount of its investment in each year, the Manchoukuo Government shall grant enough money to the company to cover the deficit.

Table 7. Assets and Liabilities
(In ¥1,000)

	2nd Half 1937	1st Half 1938
Assets:		
Securities	269,927	430,239
Fixed Assets	1,277	769
Subsidiaries	43,002	35,344
Accounts Receivable	5,156	4,189
Suspense Payment	6,037	1,020
Bills Receivable	644	644
Cash in Bank and on Hand..	30,426	78,900
Total	356,470	551,106
Liabilities:		
Capital Paid-up	198,375	396,750
Legal Reserve	23,560	24,110
Special Reserve	21,558	13,358
Dividend Unpaid	323	333
Deposits	169	1,135
Suspense Receipt	3,729	15,060
Funded Debt	20,556	—
Unfunded Debt	72,910	81,410
Brought Forward from Previous Term	4,335	2,460
Net Profit for the Term....	10,955	16,490
Total	356,470	551,105

Note: †Prior to incorporation as a Manchoukuo concern.

Table 8. Disposition of Profits
(In ¥1,000)

	2nd Half † 1937	1st Half 1938
Net Profit for the Term....	10,955	16,490
Carryover from Previous Term	4,335	2,460
Total	15,290	18,950
Legal Reserve	550	824

	2nd Half † 1937	1st Half 1938
Special Reserve	300	3,000
Dividends to Manchoukuo (5%)	—	2,329
Dividends to Private Holders (10%)	11,781*	9,919
Directors' Bonus	200	125
Carryover to Next Term....	2,460	2,753

Table 9. Disposition of Profit in 3 Terms
(In ¥1,000)

	1st Half † 1937	2nd Half † 1937	1st Half 1938
Average Paid-up Capital	119,940	196,350	291,534
Profit	8,107	10,955	16,490
Profit Rate	13.5%	11.1%	11.3%
Average Dividend Rate	10.0%	12.0%*	8.4%
Distributions	6,197	11,981	12,373
Retained within the Business	1,910	-1,026	4,117
Rate of Conserved Profit	23.5%	-9.4%	24.9%

Note: * Including special 2% distribution.
† Prior to incorporation as a Manchoukuo concern.

Agreement

The agreement arrived at between the Manchoukuo Government and the Nippon Industrial Company with regard to protecting the interests of the existing shareholders of the latter concern is as follows:

1. At the disposal of profit for each period, the dividend shall be determined as follows:

(a) When the dividend rate for private shareholders is 10% or under, the dividend for the shares held by Manchoukuo shall be one-half thereof. For example, if the private shareholders receive a 10% dividend Manchoukuo shall receive a 5% dividend.

(b) Any profit in excess of a dividend of 10% for private shareholders and 5% for Manchoukuo shall be divided equally. For example, if private shareholders receive a 12% dividend, Manchoukuo shall receive a 7% dividend.

2. In the event of liquidation of the Corporation, the residue shall be divided between the private shareholders and the Government shares in the ratio of two to one up to one and one-half times the amount of the paid-up capital. Any excess over one and one-half times the paid-in capital shall be divided equally.

3. The Manchoukuo Government shall guarantee the principal and a consolidated net return of 6% per annum on all funds

expended by the Corporation in connection with carrying on enterprises in Manchoukuo for ten years from the formation of the Corporation. In the event the Corporation does not earn the said 6% per annum and it is necessary for the Manchoukuo Government to make up a deficit up to 6%, the Government shall be reimbursed in subsequent periods out of any earnings in excess of 6%.

4. No Manchoukuo tax shall be imposed on profit made by the Corporation from investments outside Manchoukuo. Dividends paid by the Corporation to shareholders residing outside of Manchoukuo shall not be taxed. In regard to the taxation of enterprises in Manchoukuo, the Manchoukuo Government shall take suitable steps so that the functions of integrated management of the Corporation will not be impaired in the event that a change in the taxation system should cause an additional burden to be placed on the Corporation in the future.

5. The Corporation shall not be restricted in fixing the dividend rate when a disposal of profits is made.

6. In regard to the marketability of the private shares of the Corporation, the Japanese and Manchoukuo Governments shall take suitable measures so that the existing negotiability shall not be impaired.

In short, adequate protection in the form of guarantees and other privileges as listed above is to be given to the Corporation's enterprises carried on within Manchoukuo during their early stages. Therefore, even in the event that the corporation undertakes large scale projects for rapid development, it will be in a position to continue paying dividends on private shares at a rate unchanged from that of the Nippon Industrial Company, so long as there is no deterioration in the operating and earning conditions of the former enterprises of the Nippon Industrial Company.

ARTICLES OF ASSOCIATION OF MANCHURIA INDUSTRIAL DEVELOPMENT CORPORATION

Section I. General Provisions

Article 1. The Corporation shall be called MANCHURIA INDUSTRIAL DEVELOPMENT CORPORATION and shall be supervised by the Government under the Manchuria Industrial Development Corporation Administration Act passed by virtue of Imperial Ordinance No. 460 of the 4th year of Kangte.

Article 2. The objects and purposes of the Corporation are to invest in any or all of the following industries, and to direct the management thereof in Manchoukuo:

1. Iron and Steel Industry
2. Light Metal Industry
3. Automobile Manufacturing Industry
4. Aeroplane Manufacturing Industry
5. Coal Industry

Besides the business mentioned in the preceding paragraph, the Corporation may invest in the business of mining gold, zinc, lead, copper and other metals as well as in various domestic and foreign businesses for which the sanction of the Minister of the Competent Department is obtained.

The Corporation may become a promoter for the purpose of organizing companies the objects of which are businesses in the two preceding paragraphs or may advance funds to affiliated companies and guarantee the obligations thereof.

Article 3. The amount of capital of the Corporation shall be Four Hundred Fifty Million Yen (¥450,000,000), Japanese currency.

Article 4. The head office of the Corporation shall be located in Hsinking Special City, a branch office shall be located in the City of Tokyo, Japan, and offices and business quarters may be established in necessary places by decisions of the Board of Directors.

Article 5. Public notices of the Corporation shall be given in the Government Public Gazette and in the Official Gazette issued by the Japanese Government.

Section II. Shares

Article 6. The capital of the Corporation shall be divided into Nine Million (9,000,000) shares of the par value of Fifty Yen (¥50) per share, Japanese currency.

Article 7. The shares of the Corporation shall be classified into two classes, viz., Four Million Five Hundred Thousand (4,500,000) shares owned by the Government which shall be designated Class A Shares, and Four Million Five Hundred Thousand (4,500,000) shares owned by persons other than the Government, designated as Class B Shares.

Article 8. The total amount paid up on Class A Shares shall be equal to the total amount paid up on Class B Shares.

Article 9. Share certificates of the Corporation shall have the name of the shareholders inscribed thereon. Certificates for Class A Shares shall be of two denominations, viz., a share certificate for Two Million Three Hundred Seventy Thousand (2,370,000) shares, and a share certificate for Two Million One Hundred Thirty Thousand (2,130,000) shares. Certificates for Class B Shares shall be of four denominations, viz., one (1) share certificate, ten (10) share certificates, fifty (50) share certificates and one hundred (100) share certificates.

Article 10. The amount of dividend payable to shareholders at the close of each fiscal term of the Corporation not in excess of seven and one half (7½) per cent per annum on the paid-in capital, shall be distributed in the proportion of one part to Class A Share and two parts to Class B Shares.

In case the amount of dividend payable to shareholders at the close of each fiscal term, exceeds seven and one half (7½) per cent per annum on the paid-in capital, the rate of dividend for such excess shall be equal as to Class A Shares and Class B Shares.

Article 11. In case of dissolution of the Corporation

the residual assets, the value of which do not exceed one hundred fifty (150) per cent on the paid-in capital, shall be distributed in the proportion one part to Class A Shares and two parts to Class B Shares.

In case the value of the residual assets exceed one hundred fifty (150) per cent of the paid-in capital, the rate of distribution of such excess shall be equal as to Class A Shares and Class B Shares.

Article 12. A shareholder who fails to pay calls for payment upon shares shall pay interest for delay at the rate of Three (3) sen, Japanese currency, per day for each One Hundred Yen (¥100) of amount in delay, calculated from the day following the date fixed for payment to the date of actual payment.

Article 13. Shares of the Corporation may be transferred to persons of Manchoukuo and Japanese nationality only, or to juridical persons organized under the laws of either of these countries, the majority of the voting power of which juridical persons belongs to a person or persons or a juridical person or persons of Manchoukuo or Japanese nationality.

Article 14. Shares of the Corporation are not transferable by endorsement on the share certificates.

Article 15. In cases of transfers of shares, written application to record such transfers on forms provided by the Corporation, signed by both parties, shall be submitted to the Corporation together with the share certificate or certificates signed on the back thereof by the acquirer.

In cases of change in ownership of shares from causes other than transfer, a written application to record such change on forms provided by the Corporation shall be submitted to the Corporation together with documents proving the fact of the change in ownership together with the share certificate or certificates signed on the back thereof by the acquirer.

In the cases provided for in the two preceding paragraphs, the Corporation shall record the fact of the transfer or change in ownership in the register of shareholders and return the share certificate or certificates to the applicant after having the fact of the transfer or change in ownership authenticated by the Representative of the Corporation on the reverse side thereof.

A fee of Ten (10) sen, Japanese currency, per share certificate shall be paid for recording transfers or changes in ownership.

Article 16. A person desiring to exchange his or his share certificate or certificates for a new share certificate or certificates because of division, combination, mutilation or for other reasons, shall submit to the Corporation a written application on the form provided by the Corporation, in which the reasons for the exchange shall be clearly stated, together with the share certificate or certificates.

A fee of Fifty (50) sen, Japanese currency, per new certificate shall be paid for the exchange of certificates.

Article 17. A shareholder who has unintentionally lost his or his share certificate or certificates may apply for re-issuance of a share certificate or certificates only after completing public notice proceedings and securing a judgment cancelling the right.

A shareholder, intending to make the application referred to in the preceding paragraph, shall submit to the Corporation a written application on the form provided by the Corporation accompanied by documents showing the fact that the public notice proceedings have been completed and the judgment cancelling the right has been secured.

A fee of Fifty (50) sen, Japanese currency, per certificate shall be paid on the re-issuance of share certificates.

Article 18. The Corporation may close the registration of share transfers from May 26th and November 26th of each year until the conclusion of the Ordinary General Meeting of Shareholders held in the respective following months.

In addition to the cases set forth in the preceding paragraph, if it is deemed necessary, the registration of share transfers may be suspended for a certain period of time after giving public notice to this effect.

Article 19. A shareholder or the legal or other representatives of shareholders shall file with the Corporation his name, address and seal impression on the form prescribed by the Corporation. This provision shall also apply in respect to any changes therein.

A person referred to in the preceding paragraph residing in a country other than Manchoukuo and Japan shall previously fix a temporary address or an attorney in either of these two countries and shall give notice to the Corporation of this fact. This provision shall also apply in respect to any changes therein.

Section III. General Meeting of Shareholders

Article 20. General Meetings of Shareholders shall be of two kinds, viz., Ordinary General Meetings and Extraordinary General Meetings. Ordinary General Meetings shall be called in the months of June and December of each year, and Extraordinary General Meetings shall be called at any time when deemed necessary. General Meetings of Shareholders shall be held in the place where the head office is situated or in the City of Tokyo, Japan.

Article 21. The date, time and place of General Meetings of Shareholders shall be fixed by the President, and a notice of call shall be despatched to each shareholder ten (10) days prior to the date of a meeting.

Article 22. The President shall act as Chairman of General Meetings of Shareholders. In case the President is prevented from acting as Chairman, a Vice-President shall take the Chair.

Article 23. In case of a tie vote in respect to proceedings at General Meetings, the Chairman shall cast the deciding vote.

Article 24. A shareholder may exercise his or his voting power by proxy, provided, however, that a proxy holder must be a shareholder or an officer of the Corporation.

A proxy holder referred to in the preceding paragraph shall submit to the Corporation a document showing his proxy power. This provision, however, shall not apply in case the fact that he has been given a proxy is known to the Corporation.

Article 25. Minutes shall be prepared of proceedings at General Meetings, and a summary and the results of proceedings shall be written therein. The minutes shall be signed by the Chairman, a Director or Directors, an Auditor or Auditors and one or more shareholders present at the meeting, and shall be kept at the office of the Corporation.

Section IV. Officers

Article 26. The Corporation shall have one President, two Vice-Presidents, five or more Directors and three or more Auditors.

The President shall appoint a certain number of Managing Directors from the Directors.

Article 27. The President shall represent the Corporation and superintend the business affairs thereof.

In case the President is prevented from performing

his duties, one of the Vice-Presidents shall perform the duties of the President.

The Vice-Presidents and the Directors shall assist the President and shall manage the business affairs of the Corporation.

The Auditors shall audit the business affairs of the Corporation.

Article 28. The President and Vice-President shall be appointed by the Government and Directors and Auditors shall be elected at General Meetings of Shareholders.

The term of office of the President and of Vice-President shall be five years, the term of office of Directors shall be four years and of Auditors three years.

Article 29. Directors and Auditors shall continue to perform the duties of their office after the expiration of their term of office until the conclusion of the Ordinary General Meeting of Shareholders for the period in which their term of office expires.

Article 30. The President, Vice-President and Directors attending to the ordinary business affairs of the Corporation, who desire to engage in other business, shall obtain permission to do so from the Minister of the Competent Department.

Article 31. The amount of remuneration and allowance to the President and Vice-Presidents shall be decided by the Government, and the amount of remuneration and allowance to Directors and Auditors shall be decided at General Meeting of Shareholders and shall be approved by the Minister of the Competent Department.

Article 32. The President, Vice-Presidents and Directors shall constitute the Board of Directors, and at Meetings of the Board of Directors matters relating to important business affairs of the Corporation shall be discussed.

Decisions at Meetings of the Board of Directors shall be made by the President.

Article 33. Auditors may be present at Meetings of the Board of Directors and may state their opinions.

Article 34. Auditors shall examine the documents to be submitted to General Meetings of Shareholders and shall report their opinions to the Meetings.

Section V. Accounts

Article 35. The fiscal terms of the Corporation shall be from November 26th to May 26th and May 26th to November 26th. The accounts of the Corporation shall be closed on the last day of each term.

Article 36. The President shall prepare the proposals in regard to the Inventory, Balance Sheet, Business Report, Profit and Loss Statement and Proposition for Disposal of Profit for each fiscal term, and shall submit them with the written opinion of the Auditors thereon to Ordinary General Meetings of Shareholders and obtain approval thereof.

Article 37. The net profits of the Corporation for each fiscal term shall be the balance after deducting the gross loss from the gross profit in such fiscal term. The net profit and the amount brought forward from the preceding term added thereto shall be disposed of in the following manner:

- Five per cent of the Net Profits to Legal Reserve
- A portion to Special Reserves
- A portion to Dividends for Shareholders
- A portion to Bonus to Officers
- A portion to be carried forward

Article 38. Dividends to shareholders shall be paid after the completion of each Ordinary General Meeting

of Shareholders to shareholders of record as of May 26th and November 26th each year.

Section VI. Supplementary Provisions

Article 39. The register of shareholders and the original record of debentures of the Corporation shall be kept temporarily in the Tokyo Branch after obtaining permission from the Minister of the Competent Department.

MANCHURIA INDUSTRIAL DEVELOPMENT CORPORATION ADMINISTRATION ACT

Imperial Ordinance No. 460, issued on December 20th of the 4th year of Kangte

This is to sanction the Manchuria Industrial Development Corporation Administration Act and to order the same to be promulgated with approval of the Privy Council in accordance with Article 35 of the Constitution.

Signed and sealed by the Emperor of Manchoukuo
December 20th of the 4th year of Kangte

Chang Ching Hui

Prime-Minister of State

Lu Jung Huan

Minister of the Industrial Department

Han Yuan Chieh

Minister of the Economic Department

Chang Huan Helang

Minister of the Judicial Department

Imperial Ordinance No. 460.

Manchuria Industrial Development Corporation Administration Act

Article 1. The Government shall supervise the Manchuria Industrial Development Corporation in accordance with this Law, in order to expedite the coordinated establishment of heavy industries in this country, and to control these industries.

Article 2. The objects of the Manchuria Industrial Development Corporation are to invest in any or all of the following industries and to direct the management thereof in this country:

1. Iron and Steel Industry
2. Light Metal Industry
3. Automobile Manufacturing Industry
4. Aeroplane Manufacturing Industry
5. Coal Industry

Besides the business mentioned in the preceding paragraph the Manchuria Industrial Development Corporation may incidentally invest in the business of mining gold, zinc, lead, copper and other metals or other enterprises. Provided, that the sanction of the Minister of the Competent Department shall be obtained for businesses other than investments in the mining business in this country.

Article 3. The Manchuria Industrial Development Corporation shall establish its head office in Hsinking Special City.

Article 4. The amount of capital of the Manchuria Industrial Development Corporation shall be Four Hundred Fifty Million Yen (¥450,000,000). Provided, however, that the amount of capital may be increased with the sanction of the Minister of the Competent Department.

Directors shall be four years, and of Auditors three years.

Article 10. The amount of remuneration and allowance to the President and Vice-Presidents shall be decided by the Government.

Article 11. The President, Vice-Presidents and Directors attending to the ordinary business affairs shall not engage in other business without the permission of the Minister of the Competent Department.

Article 12. The amount of dividend payable to shareholders at the close of each fiscal term of the Manchuria Industrial Development Corporation not in excess of seven and one half (7½) per cent per annum on the paid-in capital, shall be distributed in the proportion of one part to the shares owned by the Government and two parts to the shares owned by others than the Government.

In case the amount of dividend payable to shareholders exceeds seven and one half (7½) per cent per annum on the paid-in capital, the rate of dividend for such excess shall be equal as to each share.

In case the capital is increased in accordance with the provisions of Article 4, a special provision shall be made, with the sanction of the Minister of the Competent Department, as to the dividend payable to shareholders, irrespective of the provisions of the two preceding paragraphs.

Article 13. If at the close of each fiscal term of the Manchuria Industrial Development Corporation, the consolidated net profits accrued from undertaking carried on in Manchoukuo do not equal six (6) per cent per annum on the total amount of funds appropriated for such undertakings, (funds consisting of profits earned from such undertakings excepted), the Government will contribute an amount equal to the amount of such shortage for any fiscal term ending within ten years from the enforcement date of this Law. If and when consolidated net profits for subsequent fiscal terms exceed six (6) per cent per annum, the amount so contributed shall be repaid from such excess, with interest at the rate of two (2) per cent per annum.

Consolidated net profits shall be calculated by deducting gross losses (interest on debts excluded) from gross profits (profits brought forward included) accrued from undertaking carried on in Manchoukuo.

Article 14. In case of dissolution of the Manchuria Industrial Development Corporation, the residual assets, the value of which do not exceed one hundred fifty (150) per cent of the paid-in capital, shall be distributed in the proportion of one part to the shares owned by the Government and two parts to the shares owned by others than the Government.

In case the value of the residual assets exceed one hundred fifty (150) per cent of the paid-in capital the rate of distribution for such excess shall be equal as to each share.

In case the capital is increased in accordance with the provisions of Article 4, a special provision shall be made, with the sanction of the Minister of the Competent Department, as to the distribution of the residual assets to shareholders, irrespective of the provisions of the two preceding paragraphs.

Article 15. The Manchuria Industrial Development Corporation may issue debentures to the extent of twice the amount of the paid-in capital with the sanction of the Minister of the Competent Department.

Article 16. In calling general meetings of the shareholders of the Manchuria Industrial Development Corporation, a notice shall be sent to each shareholder ten days prior to the date of the meeting.

Article 17. The Manchuria Industrial Development

In the case contemplated in the provision of the preceding paragraph, shares without voting power may be issued, irrespective of the provisions of the second paragraph of Article 97 of the Corporation Law.

Article 5. The Government shall own one half of the total number of shares with voting power of the Manchuria Industrial Development Corporation.

Article 6. Shares with voting power of the Manchuria Industrial Development Corporation may be transferred to persons of Manchoukuo and Japanese nationality only, or to juridical persons organized under the laws of either of these countries, the majority of the voting power of which juridical persons belongs to a person or persons or a juridical person or persons of Manchoukuo or Japanese nationality.

Article 7. The Manchuria Industrial Development Corporation shall have one President, two Vice-Presidents, five or more Directors and three or more Auditors.

Article 8. The President shall represent the Manchuria Industrial Development Corporation and superintend the business affairs thereof.

In case the President is prevented from performing his duties, one of the Vice-Presidents shall perform the duties of the President.

The Vice-Presidents and the Directors shall assist the President and shall manage the business affairs of the Manchuria Industrial Development Corporation.

The Auditors shall audit the business affairs of the Manchuria Industrial Development Corporation.

Article 9. The President and Vice-Presidents shall be appointed by the Government, and Directors and Auditors shall be elected at General Meetings of Shareholders.

The term of office of the President and of Vice-Presidents shall be five years, the term of office of Corporation shall determine its business plans for each fiscal year, and submit the plans to the Minister of the Competent Department. This rule shall apply to any alterations in the plans.

Article 18. Resolutions for the election and dismissal of Directors and Auditors, for amendments to the Articles of Association for the disposition of profits for the issuance of debentures, for the amalgamation and dissolution of the Corporation shall not become effective unless the sanction of the Minister of the Competent Department is obtained therefor.

Article 19. The Manchuria Industrial Development Corporation shall not transfer its important assets or surrender the same as security without the sanction of the Minister of the Competent Department.

Article 20. The Minister of the Competent Department may issue the necessary orders for supervision of the business affairs of the Manchuria Industrial Development Corporation.

Article 21. The Minister of the Competent Department may issue the necessary orders for control of the enterprises as to the business of the Manchuria Development Corporation.

Article 22. The Minister of the Competent Department may rescind resolutions of the Manchuria Industrial Development Corporation, if he deems such resolutions to be against the laws, regulations, Articles of Association, or to be detrimental to public welfare.

The Minister of the Competent Department may dismiss the President, Vice-Presidents, Directors or Inspectors, if he deems acts of such officers to be against the laws, regulations, Articles of Association, orders issued hereunder, or to be detrimental to public welfare.

Article 23. The Minister of the Competent Department shall appoint Superintendents of the Manchuria Industrial Development Corporation, and have such Superintendents inspect the business affairs of the Manchuria

Industrial Development Corporation.

Article 24. The Superintendent of the Manchuria Industrial Development Corporation may at any time examine safes, books and documents of the Manchuria Industrial Development Corporation.

The Superintendent of the Manchuria Industrial Development Corporation may at any time he deems it necessary order the Manchuria Industrial Development Corporation to submit its accounts and a report on the condition of its business.

The Superintendent of the Manchuria Industrial Development Corporation may attend general meetings of shareholders, and other meetings, and express his opinion thereat.

Article 25. The Minister of the Competent Department referred to in this Law shall be the Minister of the Industrial Department and the Minister of the Economic Department.

Article 26. No person other than the Manchuria Development Corporation may use the name of Manchuria Development Corporation, or any other name similar thereto, as a trade name.

Supplementary Provisions

Article 27. This Law shall be enforced on and after December 27th of the 4th year of Kangte.

Article 28. The Capital of the Manchuria Industrial Development Corporation may for the time being be in Japanese currency.

Article 29. As to the business coming under the second paragraph of Article 2, in which the Manchuria Industrial Development Corporation may have invested at the time of the enforcement of this Law, such business or businesses as to which notice is given to the Minister of the Competent Department within thirty days from the date of enforcement hereof shall be deemed to have been sanctioned hereunder.

Article 30. If the President, Vice-Presidents or Directors attending to ordinary business affairs of the Manchuria Industrial Development Corporation, who are engaged in other business at the time of enforcement of this Law, notify such fact to the Minister of the Competent Department within thirty days from the date of enforcement hereof, it shall be deemed that they have obtained sanction therefor.

Article 31. The register of shareholders and the original record of debentures of the Manchuria Industrial Development Corporation, with the sanction of the Minister of the Competent Department, shall not be subject to the provisions of Article 123 of the Corporation Law for the time being.

Principal Affiliated Companies of the Manchoukuo Industrial Development Corporation

The principal affiliated companies of the Manchuria Industrial Development Corporation in Japan and in Manchoukuo are the following:

Capital Subscribed	¥450,000,000
Capital Paid-up	¥396,750,000

PRINCIPAL AFFILIATED COMPANIES IN JAPAN

Nippon Mining Co., Ltd.	Capital Subscribed	¥160,100,000
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Capital Paid-up	¥160,100,000
Main Products:	Gold, Silver, Copper, Crude Oil, Iron Ore, etc.

Hitachi, Ltd.	Capital Paid-up	¥117,900,000
	Capital Paid-up	¥117,900,000
Main Products:	Electrical & Mechanical Equipments for Power Plants, Machineries and Rolling Stock, etc.	

Osaka Iron Works, Ltd.	Capital Subscribed	¥12,000,000
	Capital Paid-up	¥12,000,000
Main Lines:	Shipbuilding, Ship Repairing, and General Engineering.	

Hitachi Electric Power Co., Ltd.	Capital Subscribed	¥10,000,000
	Capital Paid-up	¥ 6,250,000
Main Lines:	Supply of electric power.	

Nissan Automobile Co., Ltd.	Capital Subscribed	¥30,000,000
	Capital Paid-up	¥30,000,000
Main Products:	"Nissan" and "Datsun" Passenger Cars and Trucks.	

Nissan Automobile Sales Co., Ltd.	Capital Subscribed	¥5,000,000
	Capital Paid-up	¥2,000,000
Main Lines:	Sales of "Nissan" and "Datsun" Cars and Trucks.	

Nissan Chemical Industry Co., Ltd.	Capital Subscribed	¥124,000,000
	Capital Paid-up	¥ 77,500,000
Main Products:	Coal, Fertilizers, etc.	

Japan Fat & Oil Industry Co., Ltd.	Capital Subscribed	¥40,500,000
	Capital Paid-up	¥25,500,000
Main Products:	Fish Oil and Fish Meals, Soaps, Paints, etc.	

Nippon Marine Products Co., Ltd.	Capital Subscribed	¥91,500,000
	Capital Paid-up	¥67,000,000
Main Lines:	Trawling, Floating Crab Canneries, Whale Catching and Whale Floating Factories, Ice Manufacturing and Cold Storage.	

Nippon Industrial Rubber Co., Ltd.	Capital Subscribed	¥10,000,000
	Capital Paid-up	¥10,000,000
Main Lines:	Rubber Plantation in British North Borneo, Hemp Plantation, Lumber and Woodwork Business.	

Nissan Steamship Co., Ltd.	Capital Subscribed	¥8,000,000
	Capital Paid-up	¥6,125,000

The Daido Match Co., Ltd.	Capital Subscribed	¥8,000,000
	Capital Paid-up	¥7,000,000
Main Products:	Matches.	

The Nissan Fire & Marine Insurance Co., Ltd.
 Capital Subscribed ¥5,000,000
 Capital Paid-up ¥1,250,000
 Main Lines: Fire, Marine, Accident and Transportation Insurance.

PRINCIPAL AFFILIATED COMPANIES
 IN MANCHOUKUO

Showa Steel Works, Ltd.
 Capital Subscribed ¥100,000,000
 Capital Paid-up ¥ 90,000,000
 Main Products: Pig Iron and Steel Billets, Steel Products, etc.

Manchuria Colliery Co., Ltd.
 Capital Subscribed ¥80,000,000
 Capital Paid-up ¥32,000,000
 Main Lines: Coal Mining.

Manchuria Mining Co., Ltd.
 Capital Subscribed ¥50,000,000
 Capital Paid-up ¥12,500,000

Main Products: Gold and Other Metals.

Manchuria Light Metals Co., Ltd.
 Capital Subscribed ¥25,000,000
 Capital Paid-up ¥ 6,250,000
 Main Products: Aluminium and Alumina.

Dowa Automobile Co., Ltd.
 Capital Subscribed ¥6,200,000
 Capital Paid-up ¥3,200,000
 Main Products: Passenger Cars and Trucks.

Manchuria Gold Mining Co., Ltd.
 Capital Subscribed ¥12,000,000
 Capital Paid-up ¥12,000,000
 Main Lines: Gold Dredging.

Manchuria Lead Co., Ltd.
 Capital Subscribed ¥4,000,000
 Capital Paid-up ¥4,000,000
 Main Products: Lead and Zinc.

The Manchuria Soya Bean Industry Corp.
 Capital Subscribed ¥5,000,000
 Capital Paid-up ¥2,525,000
 Main Products: Soya Bean Flour and Oil.

References:

- Table Nos.: 1-3 a, 4 b, 5-6 c, 7-8 d.
 Key: a—Industrial Department, Manchoukuo.
 b—C. F. Remier, S. M. R. and Manchurian Affairs Bureau.
 c—Finance Department, Manchoukuo.
 d—Japan-Manchoukuo Year Book,

CHAPTER XXVIII

KWANTUNG LEASED TERRITORY

Position.—120° 58' 8" E.L. and 38° 43' 20" and 39° 33' 37" N.L.
Area.—3,462 square kilometers, including 40 adjoining islands.

The Kwantung Leased Territory consists of that region in Manchuria over which Russia obtained jurisdiction from China prior to the Russo-Japanese War. Following the war and by virtue of the Portsmouth Treaty Russia transferred and assigned to Japan, with the consent of China, the lease of the region and her vested rights therein. By virtue of a treaty concluded in May, 1915 between Japan and China, the former secured the right to extend the lease of the Kwantung Territory and the South Manchuria Railway Zone to 99 years. The founding of Manchoukuo in 1932 has altered considerably Japan's position in the Leased Territory.

Population

The population of Kwantung Province as at the end of 1936 was 1,680,627, showing a three-fold increase over the year 1906. It consisted of 369,744 Japanese, 34,812 Chosenese, 1,273,503 Manchoukuoans and 2,568 foreigners.

Population of Cities.—In Kwantung Province, Dairen ranked first in 1936 with 529,257 inhabitants, followed by Pulantien with 529,257, Pitsuwo 182,318, Port Arthur 162,765, Chinchow 131,206. In the former Railway Zone Fushun with 100,633 inhabitants is the only city with a population of more than one hundred thousand. Mukden follows with 91,617.

Administration

A general reorganization of the administrative system of the Kwantung Leased Territory was undertaken after the birth of Manchoukuo. The four separate Japanese administrative organs, namely, the Kwantung Government, the Kwantung Army, the Consulates and the South Manchuria Railway Company were united under one head and the whole administration was entrusted to a figure vested with the powers of the Commander of the Kwantung Army and Ambassador Extraordinary and Plenipotentiary to Manchoukuo. This important position was filled at the time of writing by General Kenkichi Uyeda, who succeeded General Jiro Minami.

In December 1934 certain minor changes were

made to the administrative system. The Kwantung Government was replaced by the Kwantung Bureau and subordinated to the Japanese Embassy. Matters relating to Kwantung Province are managed by the newly created Kwantung Provincial Office which is under the supervision of the Kwantung Bureau.

Removal of Kwantung Government.—Beginning June 1, 1937 the city of Dairen became the new seat of government for the Kwantung Leased Territory in consequence of the formal removal there on the preceding day of the Kwantung Government from Port Arthur. The Kwantung Government is now housed in a new modern four-story building erected at Chojamachi near the Kwantung District Court at a cost of ¥600,000. Simultaneously with the removal of the Kwantung Government to Dairen City, the Dairen Civil Administration Office was formally abolished together with those in four other towns in the Territory, thus opening a new chapter in the history of Japanese rule on the continent.

DEFENCE SERVICES

Army

On September 1, 1906 in Port Arthur there was established the Kwantung Govt. consisting of two departments, namely, Civil and Military as stated above. The latter had been taking charge of general military affairs in the districts under the jurisdiction of the Kwantung Government in accordance with the Army Regulations newly promulgated until April, 1919 when the military government was separated from the civil government by the abolition of the organization of the Kwantung Military Government and the establishment of the organization of the Kwantung Government and the enactment of regulations governing the Kwantung Army Headquarters.

The Japanese garrison in Manchuria consists of the Manchurian Stationary Division, the Independent Garrisons, the Port Arthur Heavy Artillery Battalions, Kwantung Gendarmes. The Divisional Headquarters were placed at Liao-

yang and various corps in principal towns along the S.M.R. lines. Since the Manchurian incident in 1931, these garrisons have been increased to some extent in order to maintain the peace and order of Manchoukuo.

The Independent Garrisons were organized in July, 1909 when six battalions were formed for the defence of the S.M.R. with the Headquarters at Kungchuling.

The Port Arthur Heavy Artillery Corps were stationed at the port simultaneously with the fall of the fortress on the occasion of the Russo-Japanese War. As for the Kwantung Gendarmes Corps, they were organized after the termination of the Russo-Japanese War with the Headquarters at Port Arthur and squads at various points along the railway lines. As a result of the reorganization of the Gendarmes Corps in June, 1932, the Headquarters were placed at Mukden and branches at Jehol, Hsinking, Harbin and Tsitsihar and squads at important points south of Harbin to deal with gendarmes and police affairs. When they are under the direction of the Governor of Kwantung Province in South Manchuria the gendarmes are to be charged with administrative police and judicial police and the duties as provided for by Art. 2, the Gendarmes Act.

Navy

The origin of the Japanese naval equipments at Port Arthur dates back to February 6, 1905, or about a month after the surrender of the fortress in the Russo-Japanese War, when the Port Arthur Admiralty was opened. On March 15, 1914 the Port Arthur Admiralty was abolished and the Port Arthur Naval Port Department was established in its place. On November 30, 1922 the Port Arthur Naval Port Department was discontinued. On April 1, 1925 the Port Arthur Defence Squadron, which was instituted on April 1, 1913, was abolished leaving the Wireless Telegraph Corps alone in being. On April 20, 1933 the Port Arthur Naval Port Department was again instituted. At present the Port Arthur Naval Port Department comprises the Headquarters, the Port Affairs Department and the Hospital. Attached thereto are one light cruiser, a flotilla (consisting of four second class destroyers and a wireless telegraph station). The duties of the Port Arthur Naval Port Department consist in guarding the coasts of Kwantung Province, and protecting the life and property of the Japanese residents in Manchoukuo and North China and trade, navigation and fishery rights.

On April 1, 1933 the Manchou Naval Station was established at Hsinking by the Imperial Japanese Navy to take up the duties of guarding the river and sea coasts of Manchoukuo.

Police

The Japanese police administration in South Manchuria was inaugurated when the region was under military occupation during and after the Russo-Japanese War. But simultaneously with the establishment of the Government of the Kwantung Leased Territory in 1906, the police administration was limited to the Leased Territory and the Japanese railway zone. A police director-general acted under the control of the Governor. During the European War, the need for more effective maintenance of peace and order being felt, gendarme officers of the Army corps acted ex-officio in important police posts. When the Governor-General in 1919 was replaced by the Civil Governor of Kwantung, all important police officials again became civil appointees.

Courts of Justice

By Imperial Ordinance No. 198, promulgated on July 31, 1906, the courts of justice were established under the direct control of the Governor-General to handle all civil and criminal cases, irrespective of nationality in the peninsula. This was a two-trial system, which was later modified to the three-trial system, the same as in Japan proper. The courts consist of a High Court and a Local Court. The High Court is divided into the Cassation Department and Appeal Department. At first the administration of justice was based partly upon local laws and usages, but since 1909 the laws of Japan have been applied in general. Chinese usages, however, are often observed in cases relating to the family, succession, bankruptcy, criminal and other actions.

Judicial cases within the South Manchuria Railway Zone are under consular jurisdiction in accordance with the provisions of extraterritoriality of the Sino-Japanese Treaty. But appeal or cassation cases come before the High Court in the Kwantung Territory.

FINANCE

The expenditures of the Kwantung Government were from the time of the occupation of the province by Japanese forces in 1905 defrayed out of the extraordinary war fund. Upon the closing of the special account for that fund at

the end of March, 1908, however, the annual expenditure of the Government was placed under a special account, the principle of which is to defray the expenses of the Government with its revenue and at first to make good any deficit that may occur by means of a subvention from the National Treasury, with the object of ultimately placing the local finance on an independent footing.

Further, the administrative expenses required for the local organizations of the provinces which make it their object directly to promote the peace, welfare, and happiness of the local population, are to be directly defrayed out of

the local revenue so as to impress vividly upon the local population the close connection existing between the benefits they enjoy and the burden they must bear therefor. With this end in view, regulations respecting the local expenses of Kwantung Province, apart from the special account for the Kwantung Government, were issued, whereby the expenses for the keeping of accounts, education, sanitation, encouragement of industry, building and engineering, relief work, and constructions are to be paid directly with the local revenue accruing from business and miscellaneous taxes.

Table 1. Annual Revenue and Expenditure
Revenue
(In Yen)

	1935 (Settled)	1936 (Settled)	1937 (Actual Acc't.)	1938 (Budget)	1939 (Budget)
Ordinary: Year Ending Mar. 31:					
Taxes.....	6,918,063	6,585,025	7,872,912	8,668,021	8,374,740
Receipts from Government undertaking and properties.....	12,448,720	10,560,303	12,482,534	8,663,835	7,262,962
Stamp receipts	1,171,432	1,407,269	1,833,543	1,168,611	1,067,332
Miscellaneous receipts	634,620	688,565	847,741	891,196	885,490
Total	20,172,830	19,191,162	23,041,730	19,391,703	17,590,514
Extraordinary:					
Proceeds of sale of State property	820,226	1,008,449	1,550,838	569,765	842,371
Surplus of the preceding year transferred	14,172,482	16,510,984	14,909,026	6,569,278	8,704,219
National Treasury grants	4,000,000	1,947,412	1,000,000	592,000	—
Temporary profit tax	—	249,971	428,488	351,000	407,342
Total incl. others	18,997,620	19,716,815	17,938,351	8,235,671	5,430,690
Grand Total	39,170,450	38,907,976	41,030,081	27,627,374	33,021,204

Expenditure (In Yen)

	1935 (Settled)	1936 (Settled)	1937 (Actual Acc't.)	1938 (Budget)	1939 (Budget)
Ordinary: Year Ending Mar. 31:					
Kwantung Bureau	1,492,922	1,795,641	2,055,133	2,335,421	2,159,181
Courts and Prisons	551,386	557,511	586,485	694,278	645,462
Police	4,142,300	4,419,074	4,580,169	4,509,215	2,391,907
Education	2,041,304	2,219,547	2,458,788	2,793,088	3,033,672
Communications	2,907,316	3,110,586	3,304,825	3,331,044	2,349,492
Marine Bureau	180,278	179,600	188,736	222,277	228,078
Hospitals	124,031	124,378	125,279	126,131	203,913
Monopoly Bureau	2,085,902	1,277,818	2,089,459	1,527,767	1,080,170
Reserves	—	—	—	412,500	300,000
Total incl. others	15,756,185	16,108,579	19,442,241	18,556,018	15,409,481
Extraordinary:					
Unkertainings	1,570,878	2,072,567	2,760,582	2,412,771	2,920,095
Special guards	204,870	224,029	236,705	275,715	188,238
Subsidies	1,484,504	2,091,721	1,302,696	847,572	407,516
Manchuria Incident.....	3,309,189	2,983,959	2,910,520	2,222,374	—
Total incl. others	6,903,281	7,890,372	7,890,372	7,682,663	7,611,723
Grand total	22,659,467	23,998,951	28,856,475	26,188,681	23,021,204

Taxes

The taxes in Kwantung Province consist of national and local taxes. The former is subdivided into ten kinds, four of which are of recent origin, namely the business, wheat flour, cement and gasoline taxes. The revenue from the national and local taxes is given below:

Table 2. Tax Revenue
(Fiscal Year Ending March 31st)

	1936 (Settled)	1937 (Settled)	1938 (Budget)
National Tax:			
Land Tax	216,659	216,766	216,685
Salt Gabelle	382,674	473,571	446,688
Income Tax	3,832,034	3,714,949	3,819,855

	(Settled) 1936	(Settled) 1937	(Budget) 1938
Exchange Business Tax	169,047	151,740	102,537
Saké Tax	655,479	845,110	1,483,602
Tobacco Tax	1,279,132	1,900,998	1,638,542
Business Tax	—	299,578	478,632
Wheat Flour Tax..	—	180,526	236,054
Cement Tax	—	89,674	194,353
Gasoline Tax	—	—	51,173
Total	6,535,025	7,872,912	8,668,021
Local Tax:			
Business Tax	1,851,902	1,885,432	1,363,058
Miscellaneous Taxes	1,008,311	1,119,987	950,702
Total	2,860,213	3,005,419	2,313,760

Social Education

It is only some three decades since the Kwantung Leased Territory was brought under Japanese administration. Therefore, social educational facilities provided in those regions have still a great deal of leeway to make up as they are myriad in form and quite extensive in scope.

Museum (government institution).—The Museum, which is under the management of the Kwantung Government, is situated at Port Arthur. It consists of two halls, or the Main Hall and the War Memorial Hall. It displays a large collection of things relating to the civilization of Manchuria, Mongolia and China in various stages of their history. They furnish valuable references to students of science, fine arts and the economic resources of the country. The exhibits are divided into six departments, namely, customs, fauna, flora, mineral products, archaeology and articles of reference. In all about eighty-five thousand objects have been collected from Manchuria, Mongolia, China proper and Japan proper.

In the War Memorial Hall relics of the battle of Port Arthur in the Russo-Japanese War are on view. Attached to the Museum are a botanical garden and zoological garden.

Libraries.—There is one state library, which is situated at Port Arthur. As at the end of 1935 it was in possession of 35,753 books, which are 2,073 more than for the previous year.

At the end of year under review there were 28 private libraries with 533,839 books in all.*

Religion

Principal religions in Kwantung Province are Shintoism, Buddhism, Christianity, Taoism, Mohammedanism, Confucianism, Lamaism. The number of shins, temples and churches at the end of 1936 are as follows:

Shrines, 46; Shinto temples, 86; Buddhist temples, 225; Christian churches, 71; other religious organs, 171. As for the number of votaries

Shintoism was represented by 24,046, Buddhism by 107,943, Christianity by 9,906 and others by 105,739.

Agriculture

The principal crops of Kwantung Province are maize, groundnuts, kaoliang, millet, beans, etc. The cultivation of groundnuts is one of the fresh agricultural undertakings encouraged by the Kwantung Government since its inauguration. It has made such marvellous developments in recent years that the annual crop exceeds 1,000,000 million koku. They are exported to Europe, North and South America, China and Japan. The output of these staple farm products in 1936 was as follows:—Maize, 1,007,000 koku; Kaoliang 200,000 koku; Millet 158,000 koku; Groundnuts 1,316,000 koku.

Of the vegetable production the Chinese rape, turnips, sweet potatoes, cucumber and stoneleek occupy the major portion of the yields which aggregated 210,693,000 kin in 1936.

Principal fruits produced in the Kwantung Leased Territory are grapes, peaches, apples, pears, cherries, etc. The total amount of their harvest in 1936 was 29,675,000 kin.

Besides, there are what are known as special crops. These are raw cotton, castor seeds, sesame seeds, tobacco and others. Their total crops in 1936 amounted to 3,811,000 kin. The raw cotton output was 1,590,000 kin in 1936.

Sericulture

Sericulture was first introduced into Manchuria by Shantung immigrants more than a hundred years ago, but the industry was quite insignificant until Japanese intervention. In 1908 the Japanese authorities first imported silkworm eggs from Japan and carried out necessary experiments. As a result, the Kwantung Leased Territory was found suitable in both climate and soil for the industry. The Government continually encourages its development among both Japanese and native farmers. The number of egg-cards disposed of was 419 for spring, summer and autumn works combined in 1936. The number of cocoons for wild silk worms dealt with was 90,300.

The total crop of cocoons was 256 to 1 sho. The crop of wild silk cocoons was 959,870 pieces.

Forestry

As soon as it was established, the Kwantung Government gave attention to reforestation. As an initial step, nursery farms were established at Port Arthur, Dairen and Chinchou. They

cover an area of over 55 chobu.

The Government have taken and are taking every measure available to encourage afforestation. The area of forests and hills in Kwantung Province as at the end of 1936 stood at 90,433 cho-bu, which bears a proportion of 27 per cent. to the total area of the Province. Of that total area of forests and hills, 66,535 cho-bu private forests. The area under afforestation but private forests. The area under afforestation at the end of 1936 was 718 cho-bu.

LIVE-STOCK INDUSTRY

Varieties of Live-stock.—The varieties of live-stock in Kwantung Province comprise horses, cattle, sheep, swines, mules and donkeys. The live-stock in Manchuria had been small of stature and not fine in general qualities. Therefore, since 1915 the Kwantung Government have done everything possible to effect improvements in these animals. Special pains have been taken to improve the breeding of horses in the following ways:—

(1) In 1926 the Kwantung Experimental Stud Farm was established at Chinchou, where cross-breeding between Mongolian mares and 40 stallions of foreign origin which were raised in Japan, is carried on, (2) these stallions are separated and sent out every year to 19 breeding sub-stations at different local centres for cross-breeding with native mares, (3) at the local establishments a private live-stock breeding association or an agricultural association has been organized in each Civil Administration Office district for the encouragement of better horse-breeding, (4) in 1923 the Government gave official approval to the Dairen Jockey Club and has been encouraging horse racing to create general public interest in horses and to stimulate the raising of finer mares.

The South Manchuria Railway Company has carried on successfully experiments for the improvement of sheep and hog-raising at the Agricultural Experiment Station, Kungchuling, by crossing a superior Merino breed imported from abroad with the native Mongolian, and similarly a superior Berkshire breed with the native hogs.

Fisheries and Salt Manufacture

The amount of catches in 1936 was ¥3,761,000 represented by Japanese and ¥2,021,000 by Manchoukuoans, aggregating ¥5,783,000. Aquatic manufactures for the year under review amounted to ¥850,000.

Salt Manufacture.—The output of salt in 1936 was 1,147,000 koku, valued at ¥3,681,000. (For

particulars of fisheries and salt manufacture see Chapter on Aquatic Products Industry).

Manufacturing Industry

After the inauguration of Japanese administration in Kwantung Province such manufacturing industries as oil, machinery, liquors, cement, cotton yarn, etc., gradually sprang up with Dairen as a centre. Since the foundation of Manchoukuo, there have been established other important concerns for strengthening the Japan-Manchoukuo economic bloc. The Manchurian Chemical Company and the Manchurian Oil Company are most representative of them.

As at the end of 1936 there were 1,412 factories each employing five or more workers a day on an average. Of these factories, 1,064 were furnished with motors.

The total capitalization of the manufacturing industries as at the end of 1936 was ¥330,251,000.

Dairen Customs of Manchoukuo

In accordance with an Agreement concluded in June, 1907, between Japan and China regarding the establishment of a maritime customs-house at Dairen, it was decided to make the whole of the leased province of Kwantung a free zone, that is to say, goods brought by sea to Dairen are subject to import duties only when they cross the boundary of the leased territory into China, and those coming from China into the leased territory pay export duties only when they are exported from Dairen. For the collection of these import and export duties a customs-house under the control of the Chinese Government was established at Dairen and opened on July 1st, 1907.

In March, 1932, however, Manchoukuo became an independent state and was formally recognized by Japan on September 15, 1932. Since the foundation of the new state, it has had charge of the collection of the customs duties and dues at the Dairen Customs. Generally speaking, the manner of levying rates and charge is practically the same now as at the time of the Chinese Customs except that the Chinese trade is treated as foreign trade.

Communication System in Kwantung Leased Territory

The communication system, post and telegraph, in the Kwantung Leased Territory is under the control of the Manchuria Telegraph and Telephone Company, a joint Manchoukuo-Japan corporation established in 1933. The com-

munication system in South Manchuria, wherein is located the Kwantung Leased Territory, was first established by the Japanese military authorities during the Russo-Japanese War (1904-05). Soon after the establishment of the Government-General of Kwantung, the system was transferred to its Communications Bureau established in Dairen, the Chief of Bureau taking charge of affairs relating to post, telegraph, and telephone principally in the Leased Territory and the South Manchuria Railway Zone.

Mails between Manchuria and Japan were originally carried by steamer twice a week, but this was increased to a daily service by land

routes, when the Antung-Mukden Railway was brought into connection with the Chosen Government Railway in June, 1912. This was further increased to twice a day service in August, 1918. The international mail conveying service between South Manchuria and Europe by the Siberian route was inaugurated in 1908, but was suspended for several years after September, 1919, owing to political disturbances in Russia; again suspended for six months in 1919 during the Sino-Soviet dispute over the Chinese Eastern Railway question, and for a third time during the Harbin disturbance in 1932 (from January to February).

References:

Table Nos.: 1-2 a.
Key: a—Kwantung Bureau.

China Supplement

Japan's Economic Position in China

GENERAL OUTLOOK

With the hostilities on Chinese soil still continuing on a scale rarely seen in the history of the country, Japan's position in China must undergo fundamental changes the scope and extent of which are as yet impossible to gauge. And any talk of how her economic position in general, and in China in particular, will be when the war clouds have rolled off is still premature. There are so many imponderables which perforce must go into calculation at this stage.

Japan, after fifteen months' campaign, has established her military control over more than one-third of China's territory, including the commercial center in the Yangtze basin, the best part of the "central plains" forming the most fertile section of the whole land, the northern provinces rich in coal and iron ore reserves and in South China. Through all these provinces a new political order has been set up. In the north, the Provisional Government of the Republic of China has been brought into existence with the avowed intention, among others, of adjusting the relations with Japan on a friendly and mutual economic basis. In central China the Renovation Government has been established first at Shanghai and later removed to Nanking. The new regime stands upon the basic principle of political harmony and economic cooperation with Japan. In the autonomous Mongolian area even a strong movement is afoot for the independence of the Mongols, with the support of Japan. The coal, iron and wool resources of the Mongolian country are being made accessible to Japanese capital. Throughout the provinces under Japanese military occupation the Japanese are offering material aid for the rehabilitation of both large and small scale industrial enterprises. As a first step toward economic stabilization, the new central issue bank at Peking, the Federal Reserve Bank of China, has carried through a complete monetary reform with the cooperation of Japanese banking institutions. The customs tariff of China has been completely revised to eliminate the anti-Japanese features and to adjust it to levels of international fairness. As a military development of almost immeasurable

importance, the Japanese positions have been advanced almost within sight of the so-called Comintern route connecting China to Soviet bases in Outer Mongolia and Siberia through the western fringe of Inner Mongolia.

A few salient points either already established or on the horizon may be mentioned. First of all, Japan, no longer under the handicaps imposed by a hostile China, will be free to follow the course of commercial and industrial development. Japan has assumed the leadership in the financial operations on the Asiatic continent, having already taken into the fold of her gold yen bloc the best part of North China. From the military point of view, Japan's position has been appreciably strengthened with regard to Russia and Outer Mongolia. The Japanese flank on the Manchoukuo frontier is no longer exposed to the menace of Outer Mongolian or Soviet attack. Japanese shipping, with all China's coastal and inland waters freely open, is now as good as promised a new career. The Japanese cotton industrialists, favoured by their geographical position and abundant labor in China, will be the first to enter the new China field with no political handicaps to face. And still other vistas are opening in other directions as well. For the present epoch-making campaign in China is to be followed by a new era of commercial and industrial expansion in East Asia.

Japan's Economic Relations with China Before the Undeclared War of 1937 and After

General Conditions.—Close economic relations existed between China and Japan in the fields of communications, trade and industry, involving fairly large amounts of investment on the part of the latter country. An outstanding feature in the situation was that these relationships had almost without exception been the outcomes of diplomatic deals. No less characteristic was the fact that Japan's relations with China under the regime of the former Nanking Government, except in a few exceptional periods, had consistently been marked by frictions caused by the antagonistic policy followed by the Chinese statesmen. This situation became accentuated following the military outbreak of 1931 in Man-

churia. China's customs tariff had patently been raised against the Japanese imports. The political conditions of China had been consistently so developed that the Japanese industrialists and capitalists were practically denied any chance of enterprise. That this situation will be thoroughly changed under the rule of the

pro-Japanese regimes in the northern and in the central parts of China is beyond question. That under the policy for the "co-existence of Japan and China," so often reiterated in the two countries, the one as well as the other will be mutually benefited seems equally certain.

JAPAN'S COMPARATIVE POSITION IN CHINA'S FINANCE AND INDUSTRY

In the Pre-War Times and After

International Investment.—The available data on foreign investments in China are anything but adequate. But according to C. F. Remer in his "Foreign Investments in China," the amount of foreign investment as in the year 1931 was U.S.\$3,242 million. Since this figure included the amount of U.S.\$1,123 million for Manchuria, the amount for China only was U.S.\$2,119 million. Of this amount, inclusive of Manchuria's the Government obligations made up 21.9% and foreign investment in private enterprises 78.1%. Among the creditor countries Britain came first with a total of \$1,189.2 million, 36.7% of the total, and Japan followed with \$1,136.9 million or 35.1%. Japan's position, however, must considerably descend in ranking when the share for Manchoukuo is excluded. The Soviet Union came third with a total of \$273.2 million (8.4%).

With regard to changes made since 1931 an assessment is as yet impossible, although it is known that considerable increases have been made in the railway investments of Britain, France and Germany and also that Japan's investment in North China has appreciably extended. In addition, long term credits have been established for China to facilitate her imports. The Boxer indemnities which played no economic part in the past have in some measure become an active factor in the field of foreign investment chiefly through the change made in British policy.

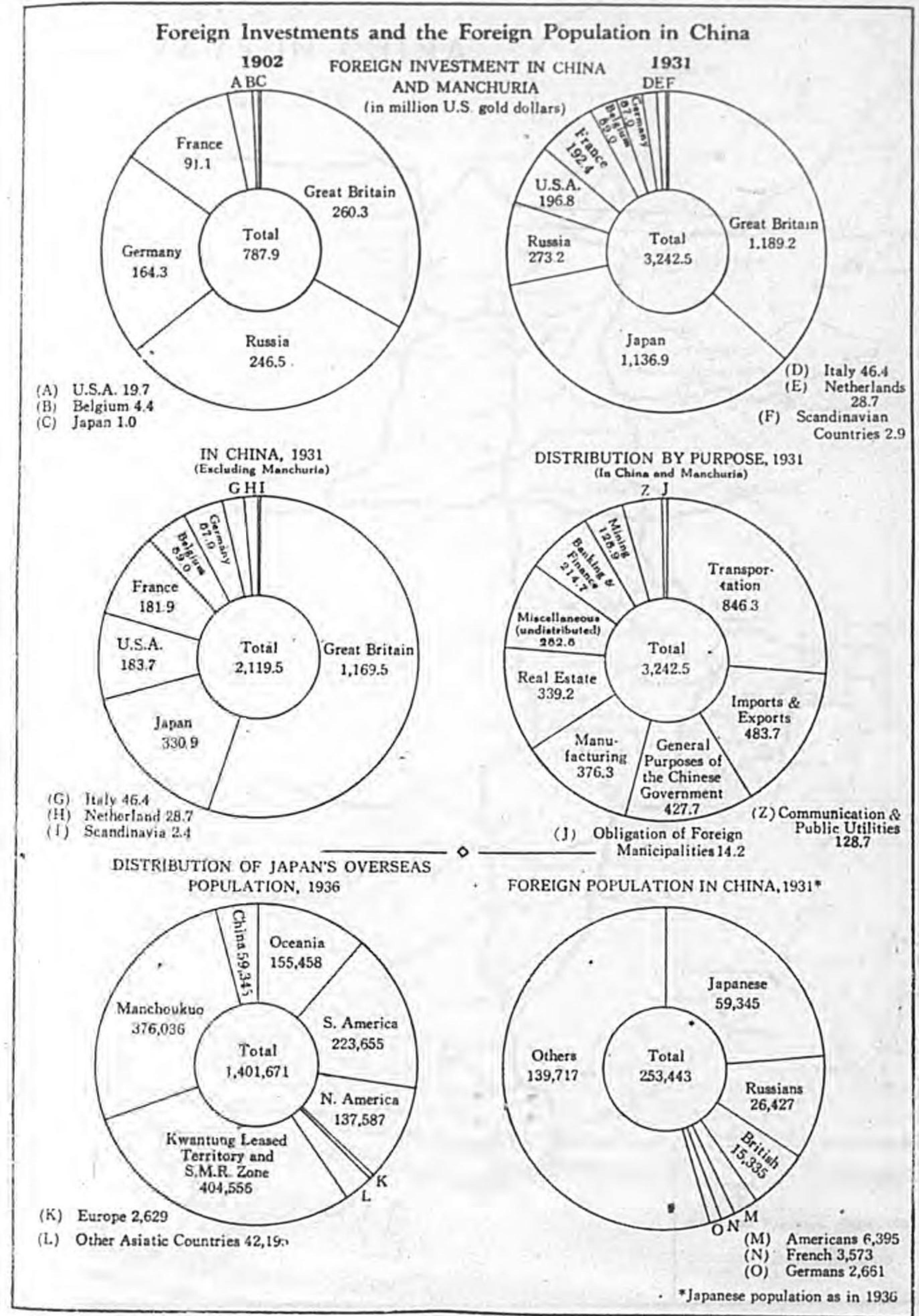
Japanese Investments

Japan's investment in China may be traced many years back. In point of amount China is only second to Manchoukuo. However, because of a series of political loans involved, with few details disclosed thereabout, accurate figures of Japan's invested interests are not obtainable. According to the report made by the Federation of National Investigation in the Japan Economic Annual (Nippon Keizai Nenshi), Japan's total investment in China up to 1931 amounted to ¥572,476,000 in loans and ¥350,654,000 in other forms of investment, the total being ¥923,130,-

000. Kazuo Kato, writing in the National Resources (Shigen), March, 1932, estimated the loans to China to be ¥662,279,000 and the other forms of investment ¥464,567,000, the total being ¥1,126,846,000.

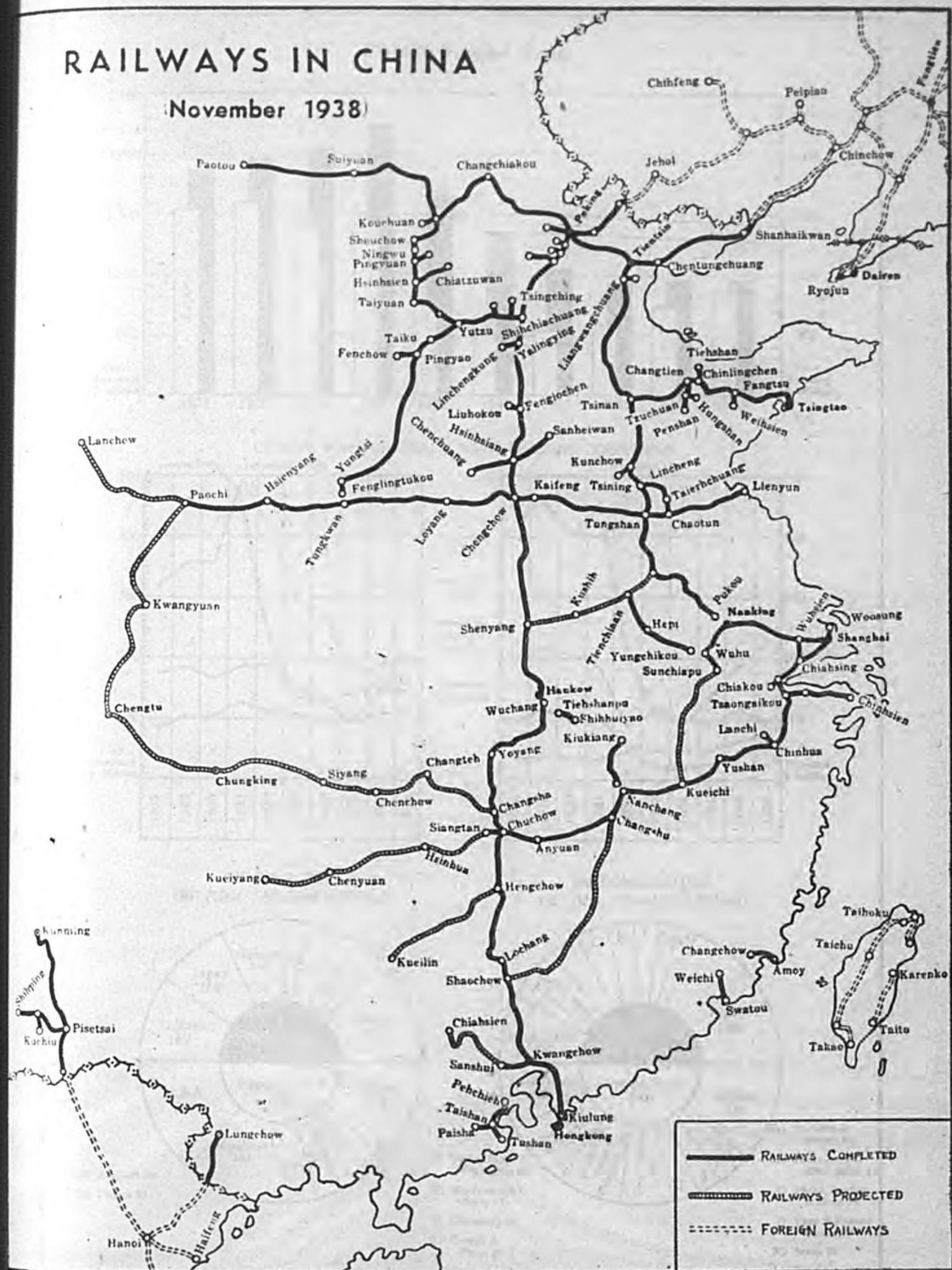
It should be noted, however, that some fundamental changes have taken place in the past few years with regard to the above situation respecting Japan's financial position in China. In the first place, the former Nanking Government carried through after December 1934 a series of adjustments with regard to Japanese loans. The amount of approximately ¥140 million loaned by the Japanese Government was reduced by half, the balance being redeemable by an yearly installment payment of approximately ¥5 million. Similar arrangements were also made with regard to the Japanese loans made to provincial governments as well as to private enterprises. As the result, the amount of Japanese investment has been drastically reduced.

The next change has been seen in the expansion in Japanese investment in North China made during the past few years, well indicating her growing industrial activities in that part of the country. Growing demands for capital have been raised in order to carry out extensive developments and to make new installations of productive equipment. The most notable instance is the cotton manufacturing business. The Japanese managed mills in China as returned for the end of 1931 accounted for 1,587,220 spindles, 218,896 mules, and 14,565 looms, but the figures returned for the end of 1936, exclusive of Tientsin, were 1,897,740 spindles, 363,266 mules, and 26,388 looms, according to the Federation of Cotton Manufacturers. The total investment in this branch of industry for the latter year was estimated at ¥300 million. Further, in the year 1937 substantial capital outlays were made when several Chinese mills were taken over by Japan and extensive developments took place at the Japanese owned plants, though details are not yet available. According to the report made to the Osaka Foreign Trade Office of the Commerce-Industry Ministry, the Japanese capital invested in cotton enterprises



RAILWAYS IN CHINA

November 1938

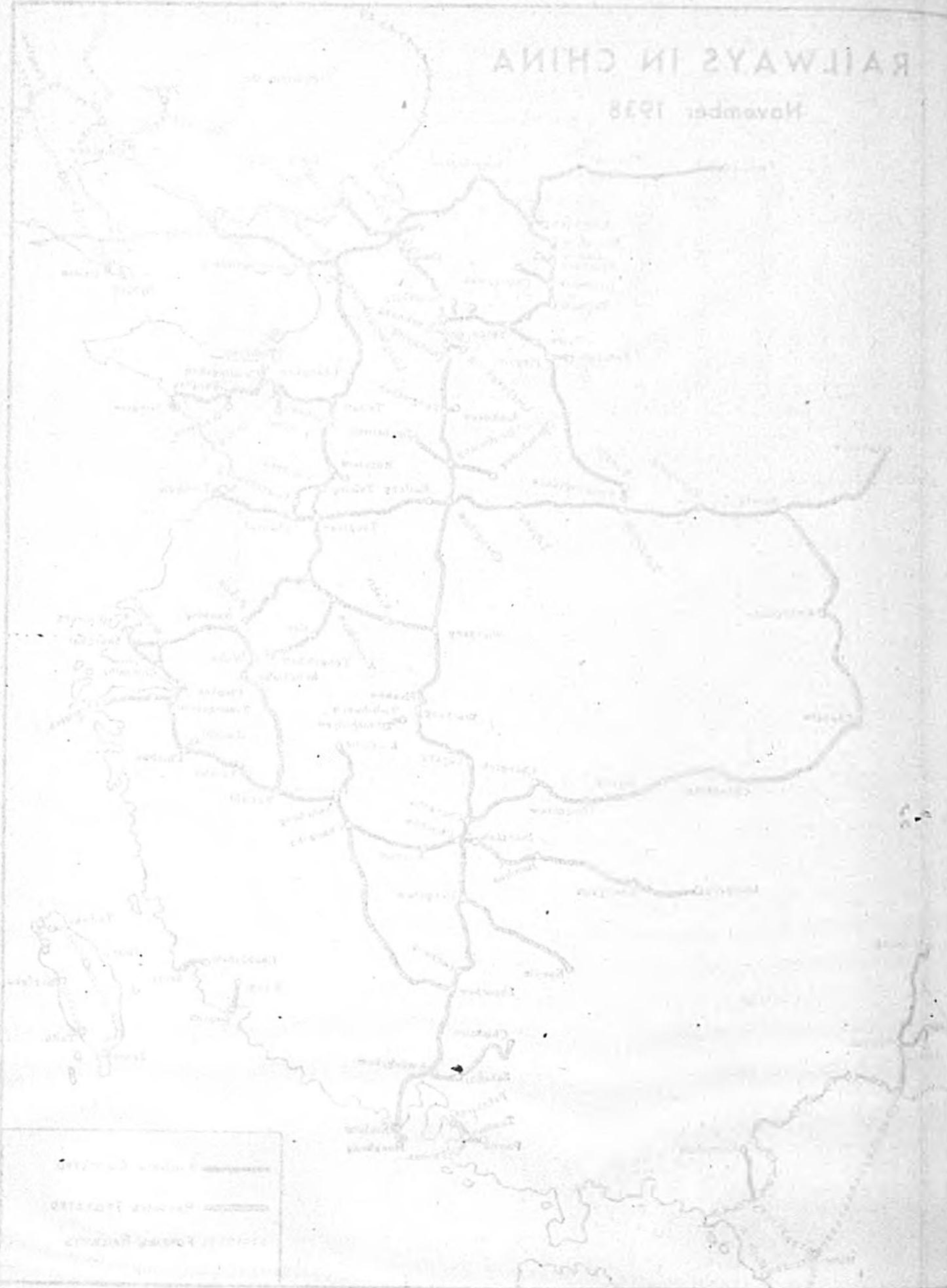


Foreign Investment and the Foreign Position in China

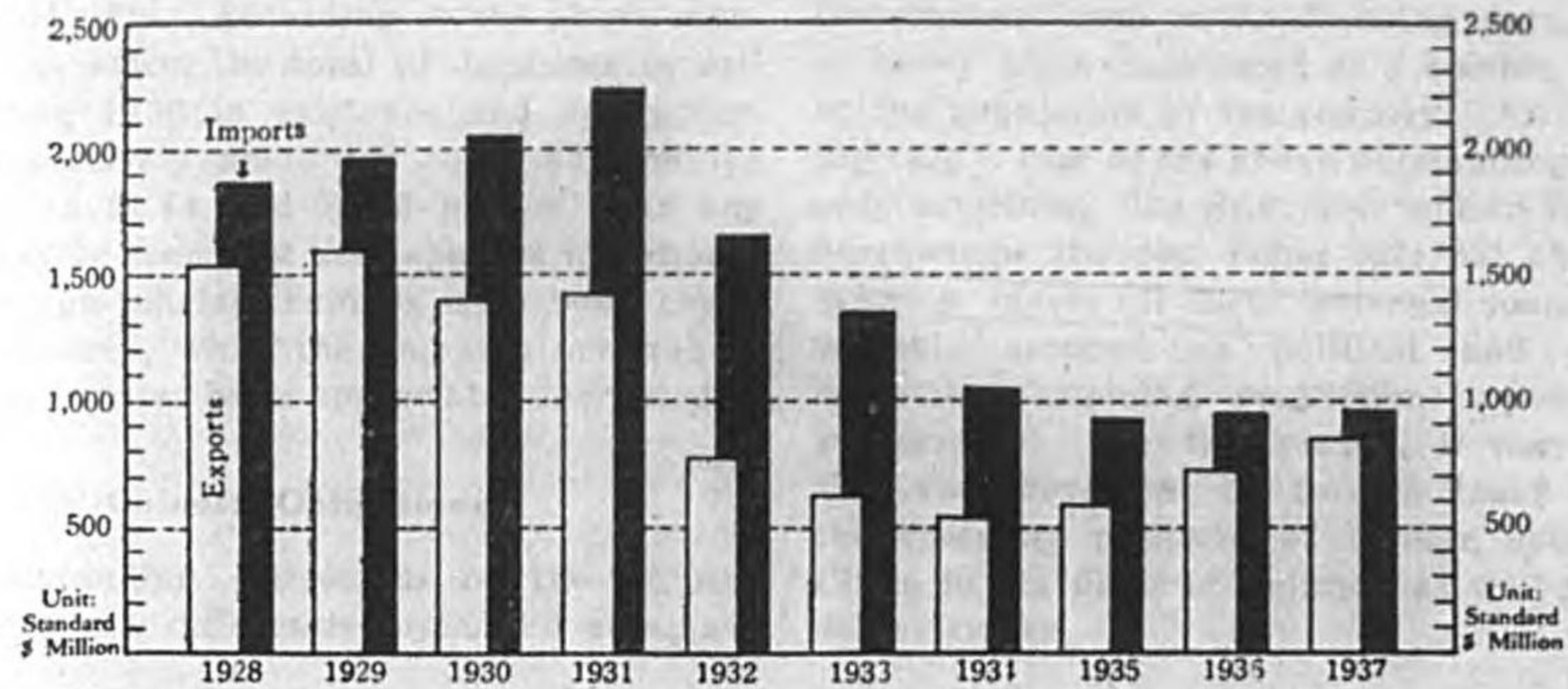


RAILWAYS IN CHINA

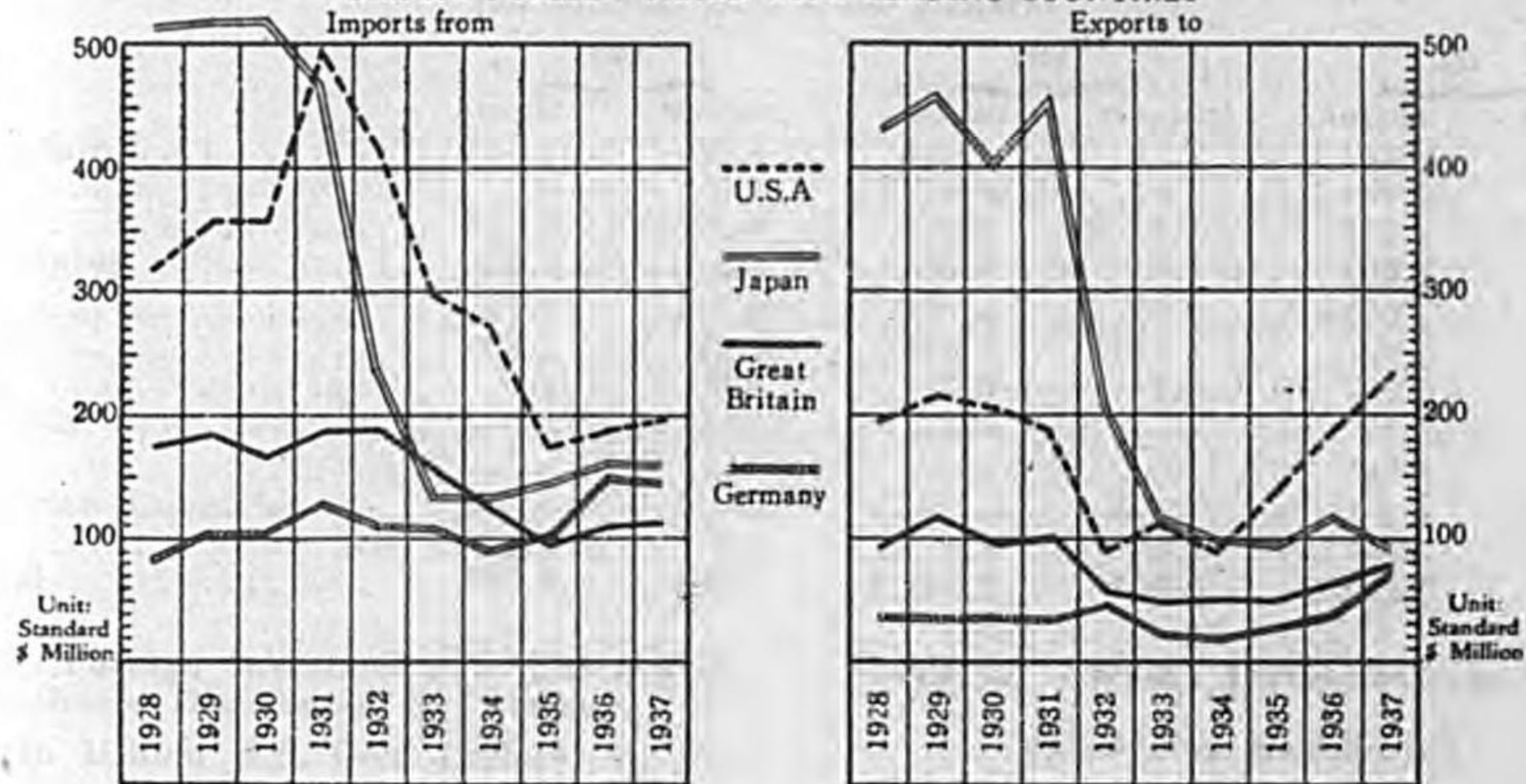
November 1938



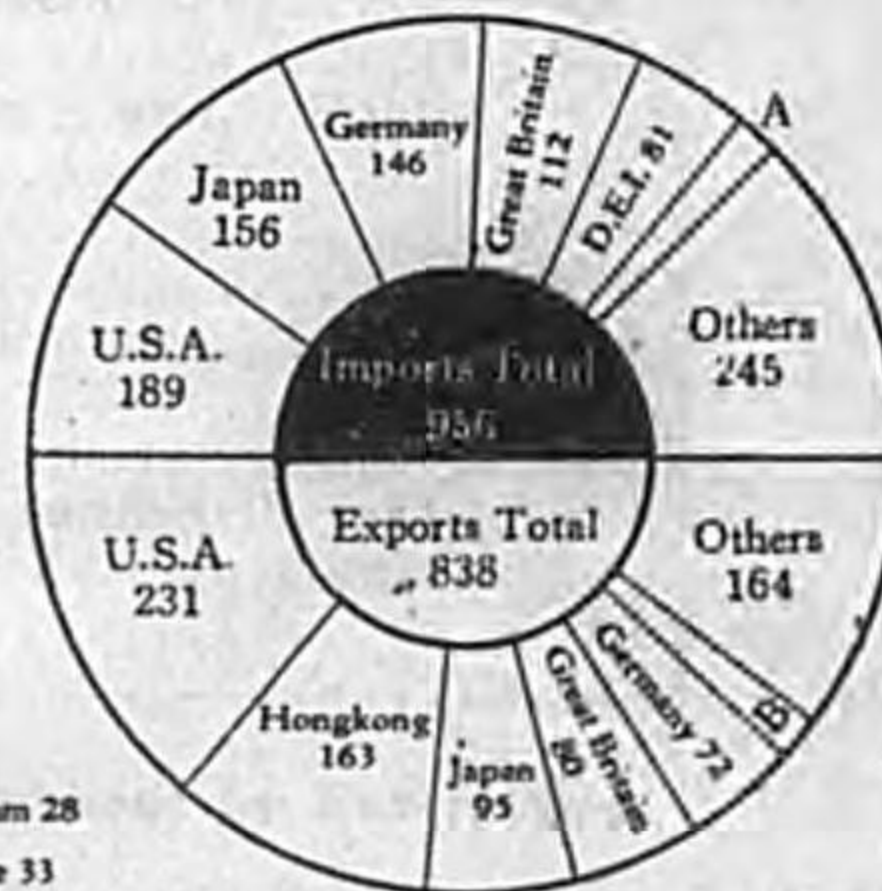
China's Foreign Trade



CHINA'S FOREIGN TRADE WITH LEADING COUNTRIES



BY COUNTRIES 1937 (Unit: Standard \$ Million)



A) Belgium 28
B) France 33

BY COMMODITIES 1937 (Unit: Standard \$ Million)



C) Books, Paper & Woodpulp 63
D) Machinery & Tools 65
E) Chemicals 61
F) Cereals & Flour 59

G) Vehicles & Vessels 42
H) Miscellaneous Metal Mfrs. 41
I) Hides, Leather & Skins 54
J) Yarn & Knitted Goods 49
K) Seeds 36
L) Tea 31

in North China during 1936 amounted to St.\$6,470,000. In addition, there were greater or less capital outlays in metal and dye manufacture, and woolen mills. According to the above mentioned trade office, the total of Japanese investment during 1936 in existence and new enterprises respectively amounted to St.\$12 million and between St.\$4 and St.\$5 million. At any rate, it may be seen that the Japanese investment made through official channels have been considerably reduced, while the amounts invested in private enterprises have appreciably increased.

Chinese Obligations

The outstanding obligations of the Chinese Government are differently estimated at approx-

imately St.\$4,500 million and St.\$5,790 million. In either case this is an excessively heavy burden on the financial resources of the Nationalist Government even in its Nanking days, but not so heavy when considered as a burden per head of the population of the country. An outstanding fact is that of the above outstanding amounts only something like St.\$1,000 million is internal borrowings, the rest being external obligations. What is more, all these external loans are invariably secured on political and economic conditions imposing restrictions upon China's sovereignty. For this reason, it may be said that the movement of foreign loans indicates the changing positions of foreign countries in China in the fields of political as well as economic activities.

Table 1. Foreign Investments in China and Manchuria Classified by Countries
(In Million U.S. Gold Dollars)

	1902		1914		1931	
	Amount	% to total	Amount	% to total	Amount	% to total
Great Britain	260.3	33.0	607.5	37.7	1,189.2	36.7
Japan	1.0	0.1	219.6	13.6	1,136.9	35.1
Russia	246.5	31.3	269.3	16.7	273.2	8.4
United States	19.7	2.5	49.3	3.1	196.8	6.1
France	91.1	11.6	171.4	10.7	192.4	5.9
Germany	164.3	20.9	263.6	16.4	87.0	2.7
Belgium	4.4	0.6	22.9	1.4	89.0	2.7
Netherlands	—	—	—	—	28.7	0.9
Italy	—	—	—	—	46.4	1.4
Scandinavian Countries	—	—	—	—	2.9	0.1
Others	0.6	0.0	6.7	0.4	—	—
Total	787.9	100.0	1,610.3	100.0	3,242.5	100.0

Table 2. Foreign Investments in China and Manchuria Distributed by Purpose
(In Million U.S. Gold Dollars)

	1931	
	Amount	% to total
General Purposes of the Chinese Government	427.7	13.2
Transportation	846.3	26.1
Communication and Public Utilities	128.7	4.0
Mining	128.9	4.0
Manufacturing	376.3	11.6
Banking and Finance	214.7	6.6
Real Estate	339.2	10.5
Imports and Exports	483.7	14.9
Miscellaneous (undistributed)	282.8	8.7
Obligations of Foreign Municipalities	14.2	0.4
Total	3,242.5	100.0

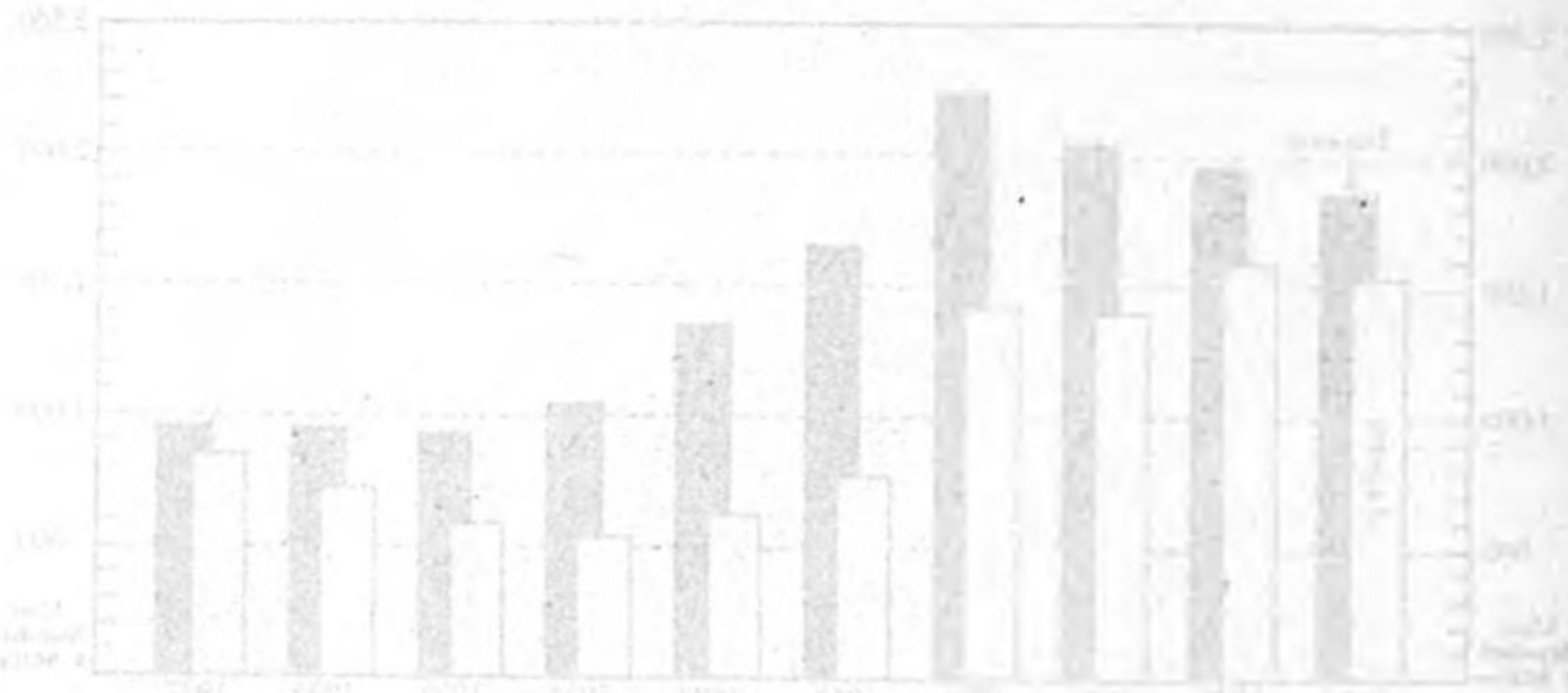
Investment by Enterprises

Railways.—The railways of China, both state and private managed, exceed 10,000 kilometers in extension. The railways under the management of the Railway Ministry as returned for the end of 1936 were 16 in number, with a total

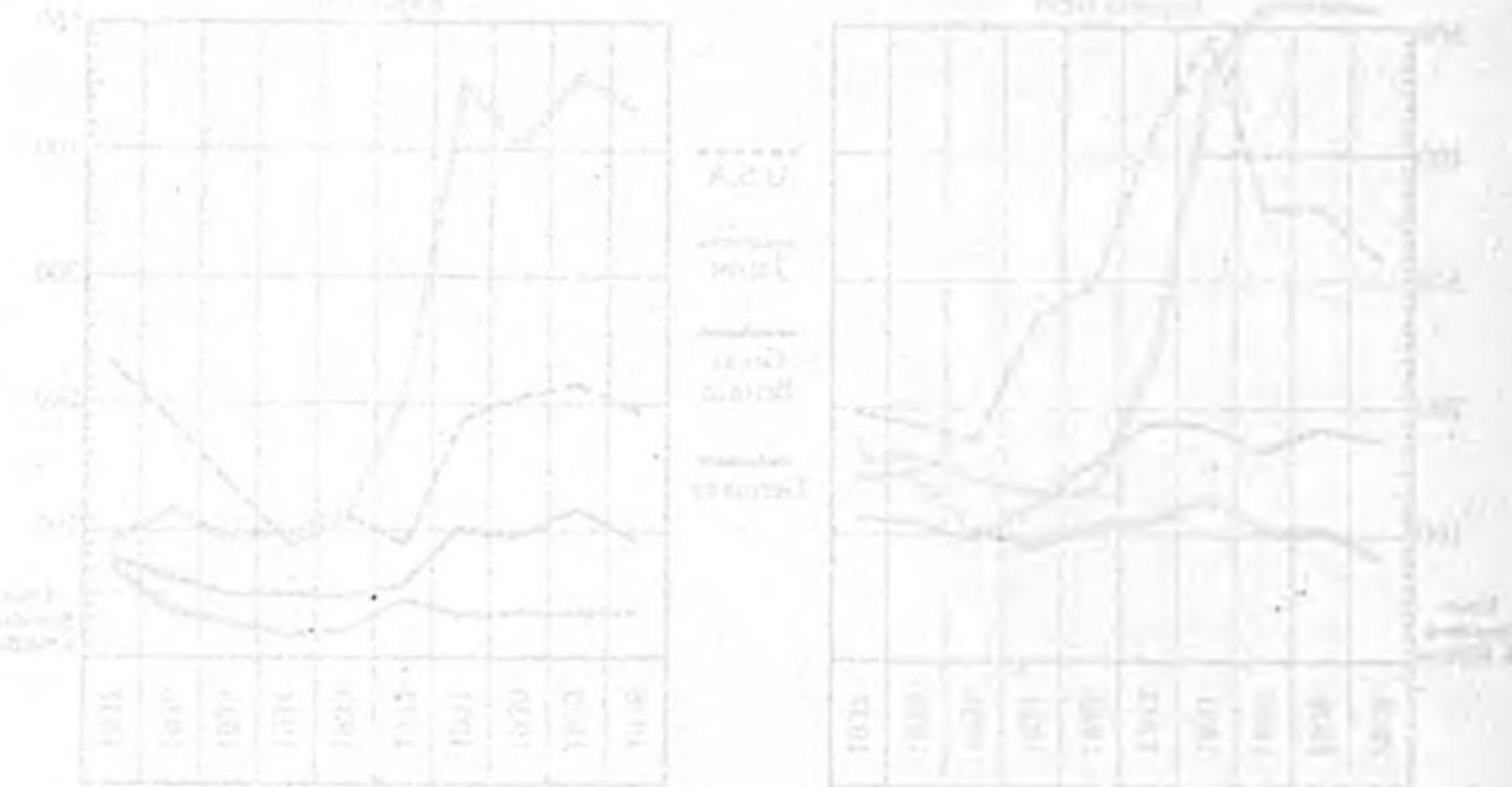
length of 9,726 kilometers, involving capital outlays which were given at St.\$862 million for the end of 1933.

Of the countries holding interests in Chinese railways Great Britain takes the leading position. Her activities in this direction have been special-

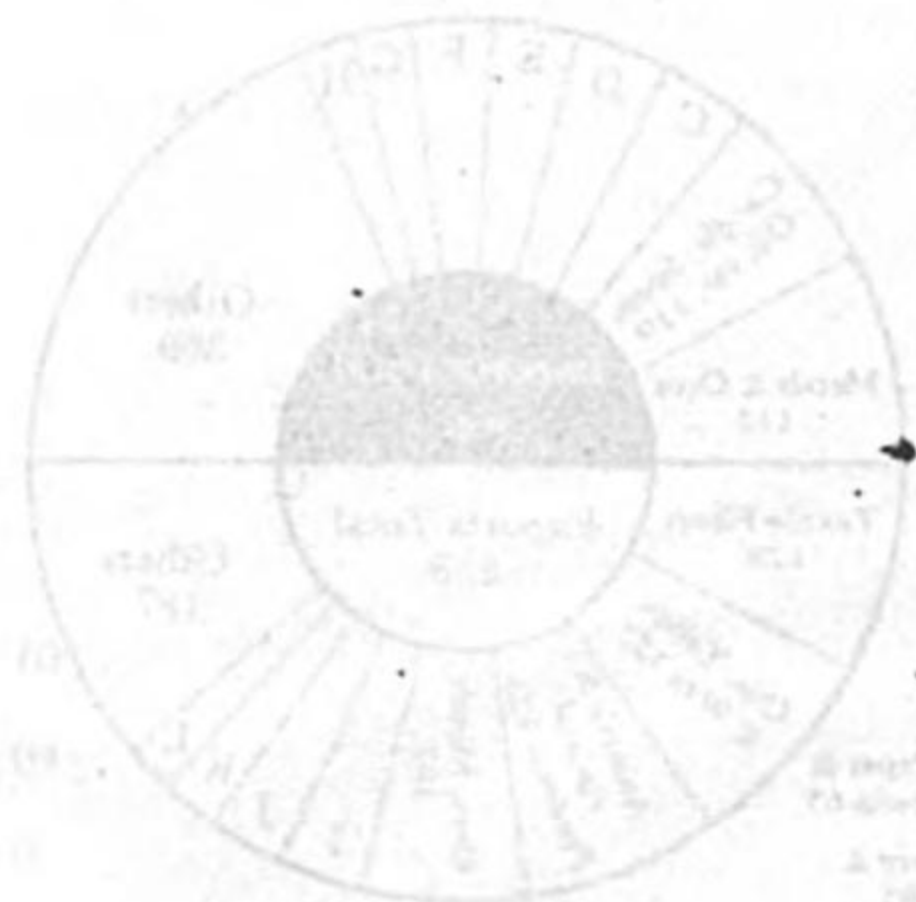
China's Foreign Trade



China's Foreign Trade with Leading Countries



Composition of Foreign Investments in China



Composition of Foreign Investments in Manchuria

