THE COST OF LIVING INDEX NUMBERS OF LABORERS

GREATER SHANGHAI

January 1926—December 1931

上海市
工人生活費指數
民國十五年至二十年

BUREAU OF SOCIAL AFFAIRS
THE CITY GOVERNMENT OF GREATER SHANGHAI
1932

上海市政府社會局
民國二十一年

上海市

工人生活費指數

民國十五年至二十年

中華民國二十一年九月初版

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THE COST OF LIVING INDEX NUMBERS OF LABORERS

GREATER SHANGHAI

(January 1926—December 1931)

BY BUREAU OF SOCIAL AFFAIRS

THE CITY GOVERNMENT OF GREATER SHANGHAI

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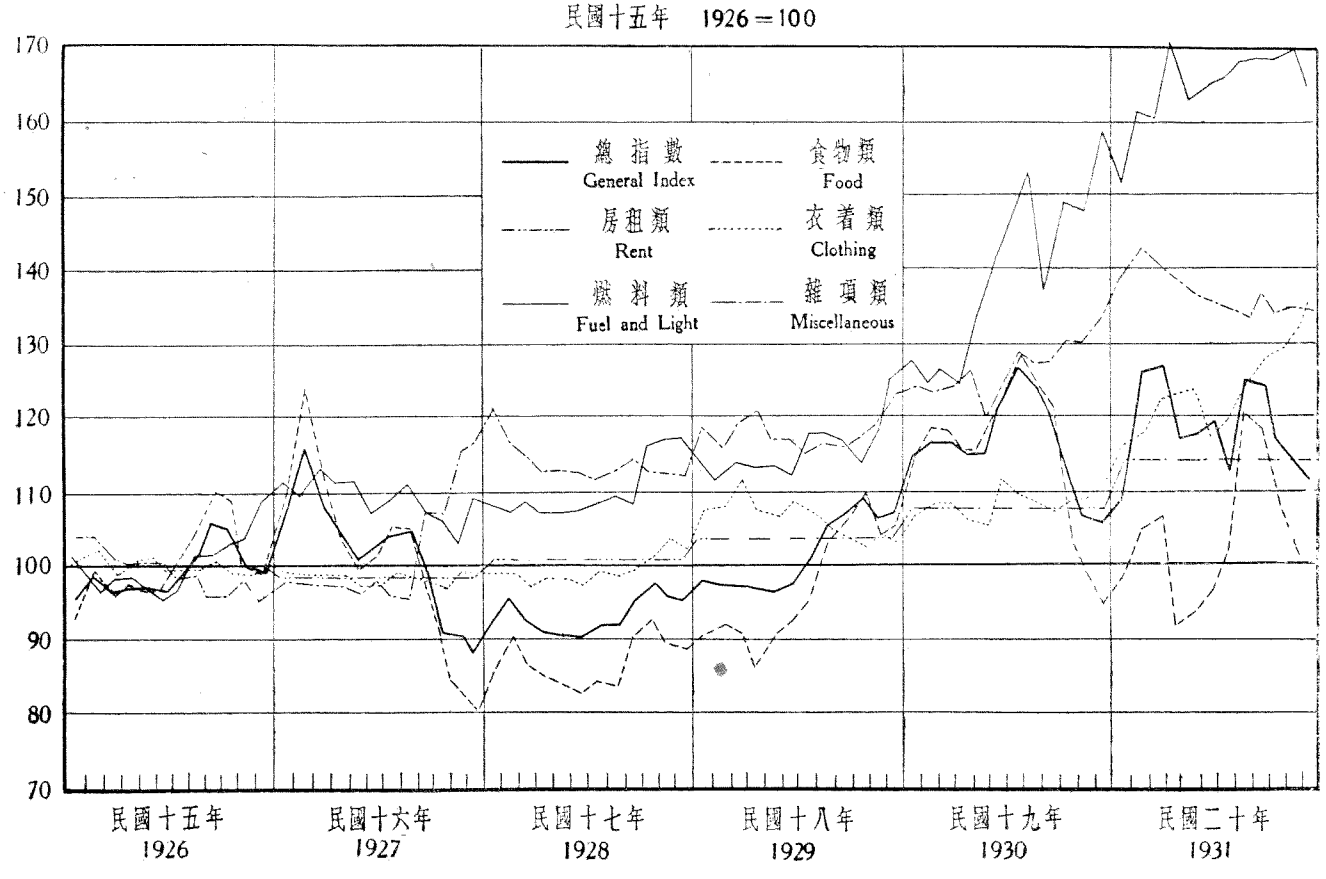
這本上海市工人生活費指數，篇帙雖不多，調查編製，却頗費歲月。直到二十一年一月編印方成。一月二十七日，接到商務印書館交來樣本。廿八日上午把樣本送還商務後，和商務通了一次電話，據說排印裝訂，都已竣事，一二天內，即可送發行所了。這一天晚上，滬變猝起。次日，商務被焚，書稿俱燬。除了這本生活費指數之外。還有十九年上海市勞資糾紛統計一稿，排校亦已過半，同時被焚。好容易又費了幾個月的時間，把本書補纂校正，方成完璧，同時又把二十年度材料一併編入，改由中華書局出版。在這重交手民付印的時候，不能不把本書延遲出版的原因，向讀者申說一下，以誌不忘。二十一年六月。

圖一 上海市工人生活費總指數與各類指數圖

Chart 1. General and Group Index Numbers



上海市政府社會局

勞工統計刊物

民國十七年

上海特別市罷工統計報告

上海特別市勞資糾紛統計報告

上海特別市工資指數之試編

上列各書，每册一元二角，由上海福州路大東書局發行。

民國十八年

上海特別市罷工停業統計	定價三元五角
上海特別市勞資糾紛統計	定價五元
上海特別市工資和工作時間	定價五元

民國十九年

上海市罷工停業統計	定價四元

上列各書，均由上海河南路商務印書館發行。

上海市勞資糾紛統計	定價五元

民國二十年

上海市工人生活費指數	定價二元半
上海市工人生活程度	在編輯中
近十四年來上海之罷工停業	同　上
近四年來上海之勞資糾紛	同　上
上海市工資制度調查	同　上

上列各書，均由上海福州路中華書局發行。

除上列統計刊物外，本局更從事編譯勞工統計叢書，書目如下：

生活費指數編製法	定價四角
失業統計編製法	定價三角半
勞動協約統計法	定價三角
工人意外遭遇統計法	定價五角
美國住宅問題概觀	定價四角
家庭生計調查法	印刷中

上列各書，均由上海河南路商務印書館發行。

蔡　序

自然科學的進展要靠實驗；社會科學的發達須藉統計。自從統計學發展以來，數字不僅能表現分量，並且能充分的說明關係。與其高談闊論化費了許多篇幅來辯駁人和人間的關係，還不如用極冷靜的統計，最簡單而最正確的數字，來證實這種關係。指數的功效便在於此，

指數的編印在國內最初只限於物價，近來才應用到一般市民的生活費上；至於工人生活費的指數更是最新的成績。上海市社會局製就民十五年至民十九年間五年的工人生活費指數，其能稗益於上海勞工事情和中國勞工運動的研究，當不待言。

上海工人維持其實際生活所必需的費用，據蔡君正雅等調查，民十八年平均每家 454.38 元，換言之，即每星期 8.74元。按照社會局的指數來計算，民十九年上海工人生活費平均每家每星期 10.01 元。中山先生說過『德國是不夠飯吃的』；但德國工人 1929 年生活費平均每家每星期有 49.65 馬克；1930 年雖然較少；也有 47.55 馬克 (J. u. M. Kuczynski, Die Lage des deutschen Industrie-arbeiters, Berlin, 1931.)。假使我們將馬克折算爲銀元，便知道上海工人的生活費還不及德國工人的三分之一。然而最近德國工人的生活費指數有些減低；上海工人的卻因爲米貴銀賤的關係，驟然增高。

工人生活費指數

	上海	德國
1926	100.00	100.00
1927	101.09	104.49
1928	93.21	107.42
1929	101.98	108.88
1930	116.79	104.28

要解決民生問題，工資是它的重要部分。西方學者頗多主張根據生活費指數而改訂工資；英國，丹麥，比利時等地方已經採用這種辦法。大戰後倫爲美

國金融殖民地的德國便不容易照辦。所以德國工人的工資總不能和工人必需的生活費相稱。

	工資占生活費的百分比	因生活費高漲而工資必須增加的百分比
1913/14	87.1	14.8
1926	74.4	34.4
1927	85.1	17.5
1928	87.1	14.8
1929	85.0	17.6
1930	77.7	28.7

(Kuczynski, S. 30.)

在今日民族工業還不能長足進展的中國，工資和工人必需的生活費當然也不能相稱。蔡君正雅如將上海工人生活費與工資作百分比，吾人更易明瞭要解決中國民生問題的困難了。

蔡元培

國立中央研究院　　民國二十年十月

方　　序

在 1914 年以前，據我們所知，世界上並沒有用家計調查法編製的物價指數，以及用消費數量來做權數的零售物價。所以生活費指數的編製，完全是戰後自然的結果，因爲在那歷史上的恐慌時代，幣制膨脹得這般的快，使生活費用和1913年基年對照，差不多在交戰的國家，沒有一個不增加到一倍以上。到1920年，各國指數都到了最高峯，美國是200，英國252，法國341，意國442，生活費既有這樣急速而又劇烈的增高，於是公私機關，從事編製可靠的指數來測量它。結果在1925年，早有31國編就指數，其中歐洲24國，北美非澳各 2 國。即在工業落後的印度，在 1922 年，也編了孟買的工人生活費指數；其中所調查的凡2,473個家庭，和603 個單獨生活的人，——據國際勞工局說『這個調查在一個城市和一個時期內，比任何同樣的調查，範圍都要大』。

而在我國，則編製生活費指數，是件很新奇的事，直到1929年一月，纔發表了北平生活費指數，這個指數，是由北平社會調查所編的。到 1930 年七月，接連又出了兩個指數，一個是南開大學編製的天津工人生活費指數，一個是財政部國定稅則委員會編製的上海生活費指數。現在上海市社會局又出了一本上海市工人生活費指數，正足以證明國人已漸漸地覺着指數的用處，更可以使現在經濟秩序裏複雜而又不穩定的狀況，格外明瞭一些。最有興味的，便是四種指數所用方法，大致相同。他們都依據48家到305家的賬目測算；除北平一種以外，大家都以1926年做基年。所用的公式，除了稅則委員會的指數以外，都是加權總合法，就是費暄教授的第五十三種公式。指數的時期，都從 1926 年起，除了天津一種是每週計算外，其餘都按月計算。物品數目，相差也很近，北平38種，天津40種，上海43種和60種。這幾個調查都限於一個階級——勞工階級，而上海市社會局所編的，範圍最廣，因爲牠包括了我國一個最重要的工業化都市——上海——的一般勞工們；天津範圍尚大，凡是手工業工人，都在內的。北平的指數，是根據 48 家的家計調查來加權的，而且大部分是人力車夫，所以範圍也就窄狹一點了，下面是我國生活費指數的分析表：

我國生活費指數的分析

區域	上海	上海	天津	北平
家計調查法				
家數	305 家	230 家	132 家	48 家
家庭類別	一般工人	紡織業工人	手工業工人	大部份人力車夫
調查時期	1929 年 4 月 至 1930 年 3 月	1927 年 11 月 至 1928 年 10 月	1926 年 9 月 至 1927 年 6 月	1926 年 10 月 至 1927 年 3 月
編製機關	上海市政府社會局	國定稅則委員會	南開經濟學院	北平社會調查所
第一次專書公布時期	1932年 1 月	1930 年 6 月	1930 年 6 月	1929 年 1 月
指數開始時期	1926 年	1926 年	1926 年	1926 年
編製次數	按月	按月	按週	按月
基年	1926年	1926 年	1926 年	1927 年
計算公式	第 53 式	第 9051 式	第 53 式	第 58 式
物品數	60 品	43 品	40 品	38 品
食物	31	24	21	23
衣着	11	8	8	7
房租	3	1	4	1
燃料	8	1	2	1
雜項	7	6	2	3
發表刊物		上海物價月報	南開統計週刊	北平生活費指數月報

雖然我們現在已有四種生活費指數，而每種指數，無疑地對於解決方興未艾的工業問題，都有重大貢獻，可是生活費指數，在我國依舊還是條未經開闢的荒徑。國內現在還沒有個眞正可以代表全國任何階級的生活費統計。固然這種指數，因爲範圍很大，難於精密，然而在國際比較上是很有用處的。我們不能否認這件工作的重要，例如英國生活費指數已包括 630 處地方了。上海市社會局的勞工統計，在蔡正雅教授主持之下，搜集和分析了許多材料——工資和工作時間，生活費和生活程度，罷工停業和糾紛等統計——樹勞工統計界的先聲，我們在最近期內，不當希望其他政府機關，也一般地編製幾種有用的統計麼？

方顯庭

天津南開大學經濟學院

二十年十一月

潘　序

民國十八年八月，本局出版的上海特別市工資指數之試編一書中，在工資指數編製法說明文內，開首一節說道：

『邇來市內，勞資雙方，時起糾紛，而工資一端，每爲爭議之焦點。惟是工資之增減，應先斟酌工作技能及效率分爲等級，再隨生活費用之高低而定進退。但工資所入，是否足以應付生活之必需，尤非藉事實爲根據，不能明其究竟。故有工資指數，則工人收入多寡之變遷乃見；有生活費指數則生活費用之升降斯明。一俟二者編成之後，互相對照，則工人生計實況乃洞悉無遺，而調解工潮改良勞工狀況或可有所依據。』

因此，就承許多關心我們的朋友，盼望這兩種統計——工資統計與生活費統計——早日發表，對於勞資糾紛之調解，工人生活之改良，有所貢獻。

我們何敢懈怠，其實在十七年訂定了本市勞工統計計劃大綱，十八年一月卽採用家計調查法，着手工人家庭計帳，同時進行零售物價調查，爲編製生活費指數的材料。直到十九年三月，整整記了一年零三個月工人家庭的帳目。起初被我們選擇記帳的，有五百個工人家庭，因爲記帳員未經充分訓練，工人們又抱着懷疑態度，故開始三個月的工作，只算試驗，並不採用；其後因種種關係，爲求準確起見，記帳的工人家庭，又逐漸減爲三百零五家。現在公布的民國十五年一月到十九年十二月的上海市工人生活費指數，就是根據這三百零五個工人家庭，自十八年四月到十九年三月一年來所記的三千六百六十本帳簿。

幾年來日積月累的工作，一旦能夠求教於當世賢達，私衷固喜；但是這種研究，對於解決勞資糾紛和改良工人生活的用處，還在切實地去運用牠和繼續不斷地去探討牠，否則於事何補呢？

『生活程度太高呀！謀生眞不易啊！』這句話成爲今人的口頭禪；實在細按起來，太覺空泛。我們就拿這次研究上海市工人生活費所得的結果來說——其實何嘗僅指工人，凡是月入在二十元至六十元，一家三口至六口的大多數中國人民還不都是一樣的情形——平均每家一年的生活費，不過四百五十元之譜，以

上海生活程度之高，僅僅供給中等階級一個人的生活，也不能說舒服呵！但是這很少的數目，要供給平均一家四五個人的全部生活費用——我們應注意到——其中食物一類，就要占百分之五十三強，房租衣着燃料三類共占百分之二十二强，這意思就是說人民衣食住三者必需的費用，已占據全部生活費用四分之三以上，其餘如教育，娛樂，交通，捐稅，送往迎來，生老病死等一切費用，不過占了四分之一；卽就雜項一類來研究，根據本局在編製中的上海市工人生活程度一書，付學費的只有六十八家，一起僅僅用了四百元弱，但是因爲生活費不夠，不得不借款，而付利息的倒有一百六十六家之多，共付利息一千七百五十元光景。卽此一端，上海工人生活的狀況，也便可想而知了。

所以我們研究了工人生活費之後，格外確切的知道：今後改良工人生活的唯一途徑，是在增進工人智識技能，發達生產事業的條件之下，提高工人生活的程度，養成工人合理的生活！

潘公展

二十年七月

蔡　序

吾們現在把上海市工人生活費指數發表了　順便也將工人們的狀況，和我們統計工作進行的經過，略說一說。這剛是吾們開始調查工作的第四個年頭，而所得結果，已使我們感覺到無限興味，對於工人的生活，居然漸漸地能了解了。

第一，研究近年來勞工不安的情狀，正可以顯出牠和政治社會的發展，有深切的關聯，尤其是立法和行政上的影響，例如民十六和十七年間革命，共黨投機，工潮暴發，調解上自然異常艱難。自從國府制定和頒布了各種勞工法令以後，便減去了不少的勞資糾紛，至少在調解上覺得比較的便利了。民十六，十七騷動的工潮，到十八，十九年，居然平平靜靜地過去。最可注意的是工會法，規定一區以內，只准一業設立一個工會——但是沒有提及各業總工會，似乎這是工潮的策源地——推行以來，事實可以證明這條法令的效用　政府盡力造成一個較好的局勢，積極地推翻那對於經濟上和智識上的事業，不受政府約束的假設。

第二，吾們調查工資，工作時間，生活費用，和生活程度，可以用準確的數字來顯明工人們的實際狀況。上海很可以自誇說有二十八萬五千個工人，在這二十一個主要工業裏頭，紡織業自然最大，也最重要，棉紡一項，就占全市工廠工人總數的百分之四十。這近乎三十萬的工人，其中百分之三十是男子，百分之六十是女子，百分之十是童子。女工占了大多數，這是因爲紡織和烟草兩業的工作，女工最爲適宜，而且工資也比較的低廉。

工人的工作時間，大多數每天自十一小時至十二時，並且一個月只有二三天例假，每小時的平均工資：男子七分三釐，女子四分四釐，童子三分四釐。

每四・六二個人，或等於三・二八個等男成年（依 Atwater's scale）的家庭，每月平均費用，是三十七元八角六分，在這個數目中食品須用去二十元一角三分，占百分之五三又二，房租用去三元一角五分，占百分之八又三，衣服用去二元八角三分，占百分之七又五，燃料用去二元四角二分，占百分之六又四，其他開支，剩下九元三角三分，占百分之二十四又六，這個數目，雖不見

得一定比他國小，卻包含着教育，運動，交通，醫藥，宗教，往來，時節，等等費用，一起在內，而最後的幾項，在舊風俗，舊習慣之下，竟與柴米同樣重要的。

第三，十九年有值得注意的兩件事，一件是生活費用的增高，這年比較民十五年的基年，普通要漲高百分之十六又八，並且食物一項，竟較十八年漲高了百分之十七又四，對於工人，尤其不利，同時這年因增高工資而起的罷工，比十八年也加添了近百分之二十，這顯然可以看到兩者的關聯，而近來的工潮，確有經濟上壓迫的原因，而不定完全是含有階級上爭鬬的意味。

還有一件是政府頒布工廠法，來改良工業狀況，工廠法裏對於工作時間，工資，童工和女工，工人幸福上的設施，意外危險的保證，工廠會議等等，都有明白的規定，雖則工人們的生活，確像上述種種的艱苦，可是廠主大半要求緩行，因而展延到二十年八月一日實施。商業的不景氣，幼稚工業的需要保護，自然是不可忽視，然而改善待遇，可以減少衝突，增高效率和生產能力，在經濟上不爲無益。希望本書出版的時候，工廠法總得給牠一個試驗推行的機會。

以上對於工人狀況的政治，立法，和經濟的幾方面，簡略地說了幾句，現在且說我們調查工作的進行方法。

這是我們第一次——除了糾紛，罷工，停業，工資和工作時間等年刊以外——發表本市的工人生活費指數。在南京，北平，天津，廣州等處，各個機關，均有勞工統計報告，大都也採用國際勞工局或各國主要勞工統計機關的編製方法，依着這種標準化的趨勢，比較研究纔有可能。工資和工作時間，在國內做調查工作的，尚還不多，這不能不希望各地也積極編製的。

爲標準化起見，我們採用了新度量衡制——根據公制的市用制，在二十年七月一日施行，——所以本書內零售價格，或許和當時市上流行價格，有多少不同的地方。然而我們覺得新的標準制，實有提倡的必要。

至於關於調查的範圍，帳簿的詳細分析——工資收入和生活費的比率——等等，我們另有一本上海市工人生活程度，不久出版，做本書的補充研究。

這幾種調查，僅僅把我們的計劃，實現了一部分，以後仍要依據大綱努力

進行。計劃中有幾項主要的調查現在已經開始初步工作了，最近的計劃，便想切實調查市內幾種的重要工業，例如棉紡和繅絲等是。

我們同事的辛勤，是當紀錄的。丁同力君專任罷工和停業統計，吳知君專任生活費用和生活程度統計，丁同力君毛起鵬君共任工資和工作時間統計，周世述君專任勞資糾紛統計。

關於這本書，我們先得感謝這三百零五家的工人家庭，在一年中，情願不斷地，供給我們細賬，也得感謝許多商舖和零售商，按期報告我們市情，這本書的初稿，由吳知君撰擬的，很忠實地，懇切地，照所定的步驟，依次做去，費昌華君費了很多時間，把全稿譯成正確的英文，其餘同事，調查計算，努力合作，爲篇幅所限，恕不能一一備舉了。

我們更當感謝幾位校讀原稿的諸君，如南開大學經濟學院院長何廉博士，財政部國定稅則委員會盛俊先生，鐵道部趙人儁博士，北平社會調查所陶孟和先生，國府主計處統計局劉大鈞博士和約翰大學沙乃文教授，希望以後繼續不斷地得到他們的幫助。

蔡正雅

二十年六月

上 海 市

工人生活費指數

（民國十五年一月至二十年十二月）

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上 海 市

工人生活費指數

（民國十五年一月至二十年十二月）

上海市工人生活費指數的編製和說明

I. 生活費指數的意義和目的

生活費指數的意義

要明瞭生活費指數的意義，請先把生活費和指數兩個名辭分開解釋。生活費乃人民生活消費物品所需的費用，這說明未免過於籠統，因爲豪富錦衣玉食的生活和平民粗布淡飯的生活，非特其支出費用的多少有不同，就是消費物品的種類和每類物品在全部費用裏的百分比，也有差異。所以要明瞭生活費的意義，必先明瞭『生活程度』的意義。人民因經濟能力的供給，物質文明的享受，發生種種慾望，在文明進化的過程中，人類的慾望，普通可以分做三個階級：第一種叫做必需的慾望，就是人類生活最低限度的條件，得之則生，不得則死。不過我們這裏所謂必需的慾望，意義還要推廣些，就是以衣食住數者俱備而不致於影響身體的發育和健康爲標準。第二種叫做安適的慾望，就是於生活必需的條件俱備之後，還要求其舒適安樂，其餘還要有相當的交際，教育，醫藥，衞生，娛樂等等的消費，來調劑生活的慾望和求得體育上智育上的發展。第三種叫做奢侈的慾望，吃的定要山珍海味，着的定要綾羅綢緞，住的定要高樓大廈，代步定要汽車，其動機無非是虛榮驕人，眩耀富貴，已越過求安適的生活程度了。雖然，科學進步，物質文明，一日千里，人類的生活，終是努力向安適和奢侈方面進行的，天天在努力把從前所謂安適的奢侈的物質享受，劃歸到必需的慾望內去。譬如汽車在現今中國社會裏，算是奢侈的物品，也許再過若干年，汽車的成本大大減低，人民活動的慾望增進，那時候汽車也就是人民安適和必需的慾望了。還有，在這個階級是必需的或安適的慾望，也許到別一階級內，又是奢侈的慾望了。例如美國平均每幾個人就有一輛汽車，所以汽車在美國不過是安適的慾望。有人說，人民生活

程度高，那末生產力也大，這裏固不必詳論。不過慾望的分類，本來是相對的，所以生活程度的觀念，非但隨時隨地有不同，各個階級也不同。概括的說，一個階級的生活程度，就是他們所習慣享受的安適和奢侈的生活。所以各個階級的生活費用，也就是各個階級實際生活所需的費用。本書專論上海市工人生活費用，就是有別於他市人民生活費用的意思。

什麼是指數？『指數是一列數字，用以測量此時與彼時，或此地與彼地的團體統計材料（group statistical data）的相對變易』註一。今日大家說：『物價高，工資低，生活艱難』，但是高到什麼程度，低到什麼程度，又都答不上來。指數乃是一列數字，指示歷來高低變遷的程度，使我們得到一個正確的概念和數字的測量。什麼叫團體統計材料？拿物價來做個比喻，市上的貨品，花色萬千，它們各個價格的漲落散播，正似一顆砲彈的開放碎片，碎片雖奔放四散，播向各處，但砲彈仍有它一定的重心，又好似海水的波濤，波濤雖起伏不定，高低不一，但海水仍有它一定的平面。所以物價的升降變遷，雖各個不同，也有它一定的平均趨勢，物價指數，就是表示這些平均趨勢的數字。什麼叫相對變易？既說相對，必定有一個比較的標準，所以指數也有一個比較的標準，便等於100。比較不必一定是時間的，也可以是地域的，如果是時間的比較，可以使某一時期爲基本期，等於 100，以其他時期和它比較而求得各種數字；如果是地域的比較，可以使某一地方爲基本數，等於100，以其他地方和它比較而求得指數。物價指數，是求物價變遷的指數，其他如表示工資變遷，有工資指數，表示匯兌趨勢的順逆，有匯兌指數，求證券市價的變遷，有證券指數，求生產量的變遷，有生產指數，求消費量的變遷，有消費指數。所以生活費指數，乃是表現人民在某時期（或某地方）的實際生活所需費用與基本時期（或基本地方）比較或增或減的百分數，那末所謂上海市工人生活費指數，也就是表示上海工人階級在某時期實際生活所需費用，與基本時期比較，或增或減的百分數罷了。

生活費指數的目的

1914年歐戰以前，歐美各國就有生活費指數了。不過那時候所謂生活費指數，實際上是選若干種重要的物品如食物燃料

註一 何廉：三十餘年來我國已編之物價指數，北京銀行月刊第七卷第二號，第一頁。

等等用簡單平均方法計算的零售物價指數，用以窺測零售市場的貨幣購買力的。因爲那時物價升降很慢，變動很小，人民在實際經濟生活中，也很少應用。幣值既少變動，以貨幣表出的定期契約如工資薪水，自然沒有時常改訂的必要。歐戰期中和戰後，因貨物的缺乏，物價飛漲，幣值慘落，其中如德國的馬克和法國的佛郎，價值一落千丈，於是一般以貨幣訂定的契約，有改訂的必要。因爲在訂約之初和訂約之終，其間幣值的變動太大，貨幣數量的收入雖沒有變，但是貨幣購買力已縮小很多。因爲物價的暴漲，幣值的慘落，工人們原來的工資，已不夠維持生活，而要求增加工資，於是要利用零售物價指數，以爲調劑工資增加的參考。但是從前所編的生活費指數，勞資雙方，都嫌它過於簡單，或許不能代表生活費變遷的正確趨勢，不足以做增減工資的良好標準，有了這種缺點，勞資之爭，仍舊不能解決。爲免除這種困難起見，不得不運用更精密的方法和更可靠的材料，編製一種完善的生活費指數，以資調劑。這種指數，有時是由私人編製的，大多數由勞資雙方合組的委員會，地方或中央政府的統計局等編製的。指數編出之後，應用極廣，尤其是對於調劑工資方面，有的國家是採用移動計算法（sliding scale），例如社會學者，有主張工人須完全不受物價變動的影響，在訂定最低工資的時候，三分之一是恆久不變，三分之二應該隨生活費指數的變動而改正。現在英倫三島勞資間協定工資，依生活費指數而隨時改正的，已有三百多萬工人；其餘如比利時丹麥各國，也有這種情形。有的國家，工資雖不隨生活費指數的變遷而改正，但生活費指數終究是評較和增減工資的強有力的參考資料；至於他們爲什麼不用生活費指數，並不是他們對於工資的增減以爲不應依照生活費指數，或許是勞資雙方對於現在的生活費指數，覺得還不完全可信罷了註一。

我國一向不講究物價指數的，近來方纔編製，至於生活費指數，直到最近纔有人注意。自從和外國通商以來，輸入的外國資本和機器，數值很多，國內重要的工商業，大半都在他們掌握之中。他們有雄厚的資本，健全的組織，精

註一 參考 Method of Compiling Cost of Living Index Numbers, 1925, pp. 7-9 International Labour Office 出版。

良的機器，大量的生產，再利用不平等的條約，舊有的手工業，不得不逐漸淘汰。一般手藝工人和農夫，感覺到經營業務的困難，同時又貪廠家較高的工資，紛紛進廠作工，麕居都市，形成都市的工業化。如上海天津漢口廣州等埠，已有多數的新式工人隊伍，形成了一個社會階級。他們最大的生活費來源是工資，也可以說他們是靠雇主發給他們的工資來養家活口的。他們是日用品最大多數的消費者，希望物價低，那末生活可以舒適。同時還有一種人是靠投資而以付額定工資和租稅爲大宗支出的資本家，人數雖比較少得多，但經濟的勢力極大，他們希望物價增高，可以多得盈利。這兩種人——雇主和被雇用者——代表社會上兩種不同的階級和利益，他們對於工資和生活費問題，往往有很劇烈的衝突。單就上海一地而說，自從民國十七年到十九年，這三年之中，上海發生的罷工停業案件共318起，關係廠號共7,622家，關係職工共346,953人，共損失工數4,572,174工，損失工資共2,550,775.64元註一。換句話說，近三年來，上海每年平均發生的罷工停業案件有106起，關係廠號2,540家，關係職工115,654人，損失工數1,523,058工，損失工資850,255元，其他間接的損失和勞資糾紛而沒有釀成罷工停業的案件，還沒有計算在內，這也可見勞資紛爭劇烈的一斑了。

勞資爭鬪最劇烈的一點是工資，所以工資也常是罷工停業最重要的原因。工人要求增加工資的最大的理由，終是說『工資太低』，『生活艱難』。非特工人如此說，一般人也這樣說了。但是試問生活艱難究竟到什麼程度？又多不能回答了。因爲要曉得生活費的變遷，那就不得不編生活費指數。我們解決勞資爭議，不要標準則已，如果要標準，那末捨生活費指數而外，很少更好的途徑了！

註一 參考上海市社會局編十九年上海市罷工停業統計，書中各項數字，並未將十七年和十八年兩年內上年未了案件剔除。例如十七年罷工案件120起中，有2起是十六年發生的，至年終未解決而列入十七年統計內，又十八年111起中，也有3起是十七年發生而列爲十八年案件，所以三年來罷工停業案件，實計僅313起。

II. 生活費指數的編製方法

勞工統計裏最繁重的一種算是生活費統計了！因爲各個人或各個階級的生活，各有他或他們的特殊情形和社會經濟等環境的不同，所以講究編製生活費指數的方法，更僕難盡。爲讀者容易了解起見，特地把它分析爲五個簡明的問題，逐一討論如下：

貨品取樣問題 生活離不了消費物品，所以要編工人生活費指數，先要看工人們消費那些物品？消費了多少？然後可以選出其中消費最多的物品來研究，調查他們價格的升降變遷，以推測生活費用的趨勢，但是市場上各種物品，花色品質，眞可說萬千不一，我們怎樣去調查工人們消費的物品呢？這裏便發生了貨品取樣的問題。現在各國通用的有『總合支出法』(the aggregate expenditure method) 和『家計調查法』(the standard budget method) 等方法，凡是在一時期把國內各種物品的出產量加輸入量減去輸出量以求全國人民各種物品消費支出的總額，由此觀察每種物品在消費總額裏所占地位的重要，作爲選擇貨品的標準，叫做『總合支出法』。我國輸出入貿易，雖有關册可考，但是國內的生產統計還不完全，並且總合支出法的對象，只適用於全國人民或全體社會而難適用於一地一個階級生活費用的研究，所以難於引用。所謂『家計調查法』，統計者於一定地域，先認清被調查的階級，然後訂定選查家庭的標準，採取經濟能力相似的家庭若干家，派人把每家逐日消費的物量和價值，記入調查表或流水帳簿，至若干時日爲止，收回後整理計算，把各家同種物品的消費量相加，去求每家每種物品的平均消費量和消費值，從這裏觀察各種物品在日常消費情形裏地位的重要程度，去定生活費指數內應該包括的貨品，叫做『家計調查法』。這種辦法，是拿一個家庭爲社會上消費的單位，調查範圍，可大可小，範圍小的，或僅調查一地一職的工人家庭。範圍大的，如美國勞工統計局 1918 年到 1919 年的家計調查，包括全國 96 城市各種職工階級的家庭共 12,096 家 註一，爲近來各國所僅見。現在各國編製生活費指數，大都採用

註一 參考 Cost of Living in the United States, 1924, pp. 1-2, U. S. Bureau of Labour Statistics 出版.

家計調查法；並且證明如調查合法，結果和總合支出法相差極微，常在百分之五以下 註一。所謂根據家計調查來選取生活費指數貨品的樣本，也並不是說把全部的物品都搜集進去，不過是在全體中選取消費量最多而又最常用的若干種，歸納爲食物，房租，衣着，燃料和雜項等五類，以計算指數。所以每一類包括若干品，方爲適當，那完全看人民消費情形而定。例如那威國生活費指數食物類包括五十五品之多，但是奧國維也納生活費指數食物類祇有十六品，內中還有三種不同的咖啡。其餘如衣着和雜項兩類的品目，各國也多寡不一，甚至德奧兩國，並無雜項一類；至於房租和燃料兩項，各國收入品目，參差較少 註二。

本局工人家計調查，從民國十八年一月到十九年三月止，最初記帳五百家，分布東西南北和浦東五區。我們參照上海的戶口調查，工資統計和業務調查而擬定的。記帳的標準是：（1）三人到六人的工人家庭，和（2）每月收入約在二十元到六十元的光景。起初的三個月，因爲工人家庭和記帳員都沒有熟練，記來的帳簿，沒有採用，並且剔除了許多不適合的家庭。其後因中途離滬帳目不全等原因，陸續准其停止記帳的又有數十家，實際上只剩三百另五家。此三〇五家生活程度的詳細分析，另詳本局不久可出版的『上海市工人生活程度』一書，他們的收入人口和職業的分配，列成下面兩表，以明此次記帳家庭的概況。

按收入分組平均每家人口數

收入組	家數	平均每家人口數†	平均每家寄膳人口數	平均每家等成年數‡	平均每家有職業人口數
$200——300以下	62	3.95	.18	2.85	1.82
300——400以下	95	4.17	.36	3.09	1.93
400——500以下	80	4.89	.56	3.61	2.19
500——600以下	31	5.19	.94	4.02	2.42
600——700以下	25	5.92	.56	4.23	2.28
700——800以下	8	5.50	1.00	3.94	2.13
800——900以下	4	6.25	2.50	5.25	2.25
各組總計平均	305	4.62	.47	3.42	2.06

† 指家屬人口，此外家中有寄膳者64家共151人，寄膳自一個月到十二個月不等，未計入。

‡ 等男成年是依照 Atwater's scale 計算的，凡實足十七歲以上的男子作一個成年男子，其他不滿十七歲之男女，依其年齡大小，作爲一男成年之百分之幾，以求一家的等男成年數，表詳 Methods of Conducting Family Budget Enquiries p. 48, 國際勞工局編。本表凡寄膳者，照寄膳月數的多少，分別計入。

註一 參考 Method of Compiling Cost of Living Index Numbers (Series No. 6), 1925, pp. 20-22, International Labour Office 出版.

註二 同上 pp. 11-13。

三〇五家有職業人口之業務分析

業務	男子				女子				共計	百分數
	夫	其他成年	童	計	妻	其他成年	童	計		
機器	42	7		49					49	7.8
建築	7	4		11					11	1.7
水電	9	1		10					10	1.6
化學	2	2		4	1	1		2	6	0.9
火柴	16	4		20	13		1	14	34	5.4
棉紡	73	35	10	118	74	50	34	158	276	43.9
繅絲	4	1		5	9	3	2	14	19	3.0
棉織	38	7		45	21	12	1	34	79	12.6
絲織	1			1	2			2	3	0.5
針織					1	1		2	2	0.3
食物	8	2		10	6	1		7	17	2.7
煙草	18	6		24	7	1		8	32	5.1
印刷	16	1		17	1			1	18	2.9
碼頭工人	10			10					10	1.6
洋車夫	7	7		14					14	2.2
小販	7	3		10					10	1.6
服役	14	4	1	19	1			1	20	3.2
其他	5	7	3	15	4			4	19	3.0
總計	277	91	14	382	140	69	38	247	629	100%

以上三〇五家，每家帳目均記滿十二個月（十八年四月至十九年三月），每家每月記帳一本，共得帳簿三千六百六十本，我們就根據這些帳簿來計算每家每種物品的平均消費額，以觀察工人階級裏實際的消費情形。從這裏我們再選取指數中所應包括的物品，共60品：計食物31，衣着品11，房租3，燃料8，雜項7如下：

（1）食物類——粳米，籼米，糯米，麵粉，切麵，豆腐，豆腐干，百頁，油豆腐，發芽豆，線粉，黃豆芽，鹹雪菜，青菜，蘿蔔，洋山芋，韭菜，菠菜，鮮豬肉，鮮牛肉，鹹豬肉，雞，鯽魚，鮮魚，鹹白魚，鮮鴨蛋，豆油，豬油，醬油，食鹽，白糖。

（2）房租類——平房，樓房（無天井），樓房（石庫門）

（3）衣着類——粗布，細布，條格布，花標布，漂布，土布，線呢，絨布，斜

紋布，棉花，男線襪。

（4）燃料類——煤，煤油，劈柴，廢木柴，花茎柴，稻柴，火柴，炭。

（5）雜項類——肥皂，草紙，香煙，黃酒，高粱，茶葉，開水，

貨品取樣的時候，最須審愼，因爲貨品是生活費指數的本質，貨品的更動，可以影響指數的根本。上表生活費指數的各類品目，如衣着雜項兩類，品目既過於繁雜，各品消費額又大都稀疏零落，雜項類裏的衞生醫藥交際喜慶喪葬等等，更難有估計價格升漲的標準，因此選入指數的品目，缺少較多。我們取樣的時候，除盡力設法使生活費指數各類品目間消費值的百分比，近乎家計調查中各類間全消費值的百分比之外，以下幾點也值得注意：素菜名目，不下百餘種，但是他們的消費值不過抵食物類全消費值百分之十七，其中大部分的貨品，尤其是蔬菜如草頭薺菜都有季候的關係，一年中上市銷售，多則半載，少則一兩個月，並且初上市的時候，所謂時鮮貨，價格大抵特別抬高，一個或半個月以後，往往一跌再跌，這種貨品，不足以爲生活費指數取樣的準則，祇得割愛。還有許多蔬菜如芹菜論把出賣，每把的大小，又時時在那裏變換，也難採取。工人住屋，大別有草棚，平房，樓房三種，樓房更可分爲石庫門樓房（有天井）和東洋式樓房（無天井）兩種，內部的構造，優劣不同。草棚多半是工人租地建築，住戶也比平房樓房爲少，所以沒有採入。衣着類中工人買現成的衣服，並不是沒有，不過是很少，大都是買布疋衣料，由縫工裁製，所以衣着類除若干種消費最廣的布疋和線襪等而外，關於現成的衣服，沒有搜羅進去。單就布疋而論，品類繁多，業中人也難詳悉，同一質料，因花色的入時與否，價格可以大變，廠商更花樣翻新，吸收顧主。商標的多少，和新舊的交替，無從臆說，但是貨品質料，還不是一樣的？商家今天進某種商標的布疋，售罄後又更進他種，完全看那一種價格的合巧和花色的入時，以迎合顧主的心理。除非粗布細布每疋有一定的磅數之外，我們定要調查某種商標的布疋，有時實在不可能的，如果同一品質而每一種新名稱給它一個地位，更是不勝其繁，所以大體上歸納爲漂布，花標布，線呢，條格布等品名，這樣一來，任憑你叫它中山

綢也好，明星綢也好，祇要品質相同，統稱爲綢。至於其他布疋衣着的名稱，不下百餘種，或因富於季候性的如香雲紗之類，或因消費家數不多如緞等類，自然也不能選入。雜項類名目最繁，凡不屬於食物衣着等四類的名目，都歸入這類，其中大多數的名目，如衞生，醫藥，交際，喜慶，娛樂，迷信等等，並沒有準則的價格，取樣時也難於包括進去。

加權平均問題

編製生活費指數，除愼重採選包羅的物品之外，還要注意各種物品的比重。日常消費品裏的米和糖比較，米重於糖，火柴和煤油比較，火柴輕於煤油。所以要表出家庭生活費用眞正的變遷，必定要使各種物品在平均的時候，都得到適當的比重，以增減它對於全體變化的影響；權數就是根據事實的指示，各種物價在平均時所應得的比重。本局上海市工人生活費指數各種物品的權數，就是從家計調查所得到的平均每家各該種物品的消費數量註一，列表如下：

註一 亦有用每種物品消費值對總消費值的百分比做生活費指數的權數的，美國政府的指數，就是一個例子。不過據我們的研究，每種物品對總消費值的比例，常沒有一定，尤以物價變動劇烈的時候爲甚，故以各種物品的消費量做權數，似乎較爲適當。

生活費指數內包括的物品及其消費數量

物品	三〇五工人家庭平均每家3.42個等成年男子†的消費量			
	依照舊制之度量衡		依照新制之度量衡	
	數量‡	單位	數量‡	單位
食物類				
米麵				
粳米	4.238	石(海斛) *	5.014	石(市斛) *
秈米	2.849	石(海斛)	3.370	石(市斛)
糯米	.100	石(海斛)	.118	石(市斛)
麵粉	1.122	包(49磅) *	1.122	包
切麵	36.106	斤(會館) *	38.117	市斤 *
豆及蔬菜				
豆腐	459.152	塊(約120立方公分)	459.152	塊
豆腐乾	207.497	塊	207.497	塊
百頁	382.186	張	382.186	張
油豆腐	3.528	斤(漕平) *	4.138	市斤
發芽豆	19.315	斤(漕平)	22.656	市斤
綠豆粉	19.395	斤(漕平)	22.750	市斤
黃豆芽	42.400	斤(漕平)	49.735	市斤
鹹雪菜	57.229	斤(漕平)	67125	市斤
青菜	259.288	斤(漕平)	304.145	市斤
蘿蔔	44.510	斤(漕平)	52.210	市斤
洋山芋	15.678	斤(漕平)	18.390	市斤
韭菜	18.871	斤(漕平)	22.136	市斤
菠菜	14.592	斤(漕平)	17.116	市斤
魚,肉及蛋				
鮮豬肉	40.972	斤(漕平)	48 060	市斤
鮮牛肉	8.576	斤(漕平)	10.060	市斤
鹹豬肉	5.898	斤(漕平)	6.918	市斤
雞	2.513	斤(漕平)	2.948	市斤
鯽魚	3.545	斤(漕平)	4.158	市斤
鮮魚(白魚黃魚帶魚烏賊魚)	28.130	斤(漕平)	32.996	市斤
鹹白魚	8.455	斤(漕平)	9.918	市斤
鮮鴨蛋	84.932	個	84.932	個
調味				
豆油	58.242	斤(漕平)	68.318	市斤
豬油	2.249	斤(租平)	2.638	市斤
醬油	62.042	斤(漕平)	72.775	市斤
食鹽	32.033	斤(漕平)	37.575	市斤
白糖	8.787	斤(漕平)	10.307	市斤
房租類				
樓房				
石庫門	.22	標準間(32立方公尺)	.22	標準間
東洋式	.58	標準間	.58	標準間
平房	.54	標準間	.54	標準間

生活費指數內包括的物品及其消費數量(續)

物品	三〇五工人家庭平均每家3.42個等成年男子†的消費量			
	依照舊制之度量衡		依照新制之度量衡	
	數量‡	單位	數量‡	單位
衣着類				
粗布	5.862	海尺*	6.253	市尺*
細布	18.415	海尺	19.643	市尺
條格布	19.418	海尺	20.713	市尺
花標布	8.585	海尺	9.159	市尺
漂布	4.833	海尺	5.155	市尺
土布	8.465	海尺	3.696	市尺
線呢	10.272	海尺	10.957	市尺
絨布	4.772	海尺	5.090	市尺
斜紋布	3.038	海尺	3.241	市尺
棉花	1.261	斤(漕平)	1.479	市斤
男線襪	3.948	雙	3.948	雙
燃料類				
煤	189.091	磅	171.543	市斤
煤油	88.566	斤(魯館)	63.499	市斤
劈柴	117.897	捆(約重漕平3斤左右)	117.897	捆
廢木柴	421.035	斤(漕平)	493.874	市斤
花賽柴	158.100	斤(漕平)	185.451	市斤
稻柴	158.079	斤(漕平)	205.368	市斤
火柴	90.052	小匣	90.052	小匣
炭	.680	簍(約重漕平25斤)	.680	簍
雜項類				
肥皂	50.827	塊	50.827	塊
草紙	15.244	刀(90張)	15.244	刀
香烟	231.869	十支	231.869	十支
黃酒	38.020	斤(漕平)	44.597	市斤
高粱	21.432	斤(漕平)	25.140	市斤
茶葉	2.429	斤(漕平)	2.849	市斤
開水	4436.469	杓(容水漕平25兩)	4436.469	杓

† 等成年男子數是依照 Atwater's scale 的計算表合算的。

‡ 各品數量,係全年之消費量,故於計算每月分類指數及總指數時,除房屋間數外,均以十二除之,以爲各品之權數。

* 海斛1升=1.1830市升, (1市升=1公升) 1磅=0.9072市斤, (1市斤=$\frac{1}{2}$公斤), 魯館1斤=1.0557市斤, 漕平(即上海天平)1斤=1.1730市斤, 海尺1尺=1.0667市尺, (1市尺=$\frac{1}{3}$公尺)。

上表是每類中各個物品的消費數量，也就是各個物價的權數，用以計算分類指數，已足分別表出各類物價正確的趨勢。至於計算總指數，並不再用分類權數（group weights 各類間全消費值的百分數），因爲：（1）在貨品取樣裏，每類各以其自身的輕重而已得適當的比重了，雖然在雜項類缺少的品目較多，但此爲事實所限，並且我們要知道占雜項類最重要位置的交際，祭祀，喪葬，喜慶，小孩雜用等項，和其他各類——尤其是食物——都有密切的關係，所以雜項類取樣價值的百分比，雖然比原來輕些，尚無大礙；（2）食物，衣着，房租，燃料，雜項等分類，原來是人爲的，我們如果把全部消費品看做整個的，然後再來選取代表的樣子，就可以知道各個物品的權數，實在比分類權數還重要，所以我們不用麻煩的分類權數或補充權數的辦法，相信在總指數方面，影響是很小；和（3）爲和別的指數比較起見，指數的基期常常有移動的需要，如果用分類權數，當基期移動的時候，指數就要根本改算，很覺麻煩，如不用分類權數而用適宜的公式如加權總合法，那末基期移動，祇須把改定基期的指數，除其餘各期的指數，再乘100，就可以求到基期移動後的指數了。

調查物價問題　良好的生活費指數，先要有準確的權數和物價，因爲生活費指數，也就是加權的零售物價指數。並且據費暄教授的研究，指數受錯誤的價格之影響，比受錯誤的權數之影響，可以大出四倍到十八倍註一。所以我們調查物價，要特別愼重，其中最重要的問題有：（1）調查區域，（2）調查期間，和（3）劃一品質，分述如下：

（1）**調查區域**　物價調查，由本局按期派員持調查表分赴各特約零售商舖指導填寫，因爲派員調查，所以調查事項，不妨較詳，遇有疑問，可以隨時查詢，結果自然比用通信調查準確。至於調查的區域，須看指數要適用於那一種階級爲定。本局生活費指數，限於勞工階級，故調查零售物價區域，規定爲工人集居的地段。工人收入，大都不豐，多聚居都市四周偏僻而鄰近工場的街弄裏，取其房租低廉，出入便利。上海以最繁盛之南京路爲中心，可分東南西北與浦東五區，依區域大小和工人的多少，每區選查代表商舖若干家，各區內調查的主要

註一 Irving Fisher: The Making of Index Numbers, Appendix II § 7 pp. 447-449.

街道如下：

東區——楊樹浦路，平涼路，華德路，韜朋路，臨青路，物華路，天寶路，胡家木橋，梧州路。

南區——康悌路，菜市路，裏馬路，滬軍路，半淞園路。

西區——曹家渡，勞勃生路，安南路。

北區——恆豐路，大統路，寶山路，西寶興路。

浦東——瀾泥渡大街。

此外在全市還調查菜市九處，分布如下：

東區　平涼路小菜場，梧州路小菜場，

南區　唐家灣小菜場，南碼頭，

西區　曹家渡，勞勃生路，

北區　共和路小菜場，寶興路小菜場，

浦東　瀾泥渡大街。

（2）調查期間　物價調查次數的多少，要看每種物品價格變動的快慢而定。以零售物價和批發物價比較，那末零售物價變動緩而微，單就零售物價而論，各貨價格變動的快慢和多少，仍極參差。吾人調查零售物價，凡遇貨價變動不大的如油醬布疋等，則每月十五日調查一次，貨價變動較多的如蔬菜魚肉米糧等，每星期調查一次，以求一個月的平均價。至於每種貨物調查店舖的多少，以填價參差的程度爲準，每種物品調查的店數，最少者爲棉花共六家，最多者爲米糧共二十家，其餘大都在十二家以上，我們採用的每種貨價，就是各店填價的算術平均數。

（3）劃一品質　調查物價，有一個必須遵守而又最容易忽視的原則，這原則就是我們調查一種貨品價格的變動，必使該貨之品質在同時期內各店一律，在同一店內前後相同；又以測量貨價變動趨勢而言，則求一店中品質前後相同，較同時期內求各店品質劃一，有時更爲重要，否則雜合優劣不同的貨品，比較其先後價格的變遷，必不能代表任何一種情形。我們爲竭力避免此種弊病起見，對貨物之有標準或著名通銷之牌號者，用標準牌號；其必須憑店員目光及優劣

懸殊而無標準牌號可依據者，除在調查表將各種牌號詳細分開外，都附帶貨樣，並將上期填價註出，以便參考比較，如米，布疋，茶葉等是。這種辦法，雖不能說品質不一律之弊，盡可免除，但是差異的程度，或不致過大。

至於十八年以前的貨價，是根據現在調查商舖的帳簿記錄求得的，其中祇有蔬菜市價，一部分是從菜販包飯作等處調查來的。

關於房租的調查，是依照各區房屋多少的比例，按年調查每標準間平均每月房租若干，以計算指數。

計算公式問題 費暄教授（Prof. Irving Fisher）嘗就美國戰時工業局（War Industries Board）調查的1,574種貨物中，採取36種貨品，自1914至1918年每年的價格和銷售量，用134種公式計算指數，利用時間還原測驗（time reversal test）和因數還原測驗（factor reversal test）以定各種指數的優劣。結果在簡單平均公式中選定簡單幾何平均法爲最優，在加權公式中以『理想公式』爲最優。今以P_0爲基期某種物品價格，Q_0爲基期該種物品銷售量，P_1爲計算期該種物品價格，Q_1爲計算期該種物品銷售量，Σ爲總合的符號，則『理想公式』如下：

$$\sqrt{\frac{\Sigma P_1 Q_0}{\Sigma P_0 Q_0} \times \frac{\Sigma P_1 Q_1}{\Sigma P_0 Q_1}}$$

理想公式的準確程度在.01%以內。不過引用這個公式，計算期權數(Q_1)須逐年更換，同時須具備基期的權數(Q_0)，此非一般情形所能許，因此費暄教授更介紹以某一時期內銷售量爲權數的加權總合式，以爲代替，也常常可以得很好的結果。至於物價的權數，不妨採基期的，計算期的，兩年或數年的平均，或假設的固定權數，均無不可註一。我們再看實際的情形，家庭記帳期和基期常常不能一致，所以計算生活費指數，多用記帳結果做固定權數，公式可以寫做

$$\frac{\Sigma P_1 Q_c}{\Sigma P_0 Q_c},$$

上式Q_c代表家計調查每種物品的消費量，作爲固定權數，P_0和P_1代表基期和

註一 參考 Irving Fisher: The Making of Index Numbers, Third Edition, 1927, Chapter VI and XVII.

計算期各個物價。這個公式，很像用假定數爲固定權數的加權總合式，在費暄教授的指數論列爲『9)51』式，$\frac{\Sigma P_1 W}{\Sigma P_0 W}$。所不同的，這裏所用的是每種物品的實在消費量而非假設的權數註一。

上面的公式，是現在計算生活費指數最通用的，業經本局採用，其優點如下：

(1)結果準確　此式能適應時間還原測驗，並沒有偏誤性(bias)，準確程度在3%以內 註二。

(2)計算便利　在各種公式中，其計算的便捷，占第二位 註三。因爲用這公式，毋庸計算價比 (price relative)，把每種物品平均價格乘其消費量之積相加即得。分子與分母，如基期不動，分母恆久不變。

(3)意義顯明　這個公式所表示的是兩個時期物值的比率，就是計算期生活費和基本期生活費相比的意思，所以應用於生活費指數，意義更加明顯。

(4)改算簡捷　指數因互相比較而意義更明，效用愈大。但是爲和別的指數容易比較起見，常須移動指數的基期，以求一律。基年的移動簡便，自然更適於引用了。用本公式計算的指數，因爲就是各年物值和基年物值總數的比例，所以移動基年，祇須把新基年的指數除其他各期的指數再乘100，即得基年移動後的各期指數。其餘大多數的公式，就沒有這樣的便利了。

人類生活消數的情形，日新月異，所以年代長久了，人民消費的物品和數量起了顯著的變化之後，那末以固定消費量爲權數的公式，當然也跟著起了相當的變化。所以1926年第三次國際勞工統計專家會議決定最好不出十年，就應該把人民消費情形再調查一次，作爲修正 註四。或利用理想公式來修正這個公式的錯誤，都可以的。

價格基期問題　基年就是作歷年物價比較標準的基本時期。基期的長短，並不一定：有用一月的物價平均，也有用一年或數年的物價平

註一　上面的公式也有寫做 $\frac{\Sigma P_1 Q_0}{\Sigma P_0 Q_0}$，這個公式在費暄指數論中列爲第53式。因爲人民消費情形，變遷尚慢，如果記賬和基期相隔不久，那末記賬的結果，未始不可看做基期的權數。

註二　Irving Fisher: The Making of Index Numbers, Third Edition, 1927, p. 362.

註三　同上 p. 325.

註四　參考 The Third International Conference of Labor Statisticians, Geneva, 1926, p. 20, International Labor Office, 出版。

均，通常以一年爲最憂。指數既是以某期和基期比較的百分數，所以祇要基期變更，指數就全部異致，基期的重要可想而知，所以決定基期須特別審愼。

決定基期，必須注意幾個主要的條件：第一，基年經濟情形平穩，沒有特殊的變動；第二，離現在不久，便於比較和引證；最後，力求和大多數指數的基期一致，便於互相比較。1925年國際勞工統計專家在日內瓦第二次會議，雖議定以 1930 年爲生活費指數的基年，但實際上還沒有採用的；並且在 1930 年，全世界產業界在極度衰頹的情況之中，物價下降，所謂不景氣的現象，普及全球。至於我國，因受金價飛漲的影響，物價騰貴，人民購買力薄弱，商業蕭條，如採該年爲基年，似不適當，經過再三的考慮，決定以民國十五年(1926年)爲基期，理由如下：

(1)1926年上海社會和經濟界的情形，尙稱平穩，例如消費品中最重要的食米一項，粳米每石（市斛）上落在十二元到十四元左右，籼米始終徘徊在十二元左右（參閱本書第二編表二），形勢很是穩定，就是政治上也沒有大的變動；並且離現在很近，足當以後各年比較的標準。

(2)從前各國編製物價指數，多採用 1913 年或 1914 年做基年，取其可與戰前最後一年相比較。但現在距離 1913 年過遠，比較不便，自經美國勞工統計局棄 1913 年而採 1926 年爲該局批發物價指數的基期之後，復經費暄教授的推許和採用，各國都傾向採用戰後最適當的年度做基期，最著的有坎拿大統計局批發物價指數，與意國米蘭商會物價指數的採用1926年爲基期，和英國經濟雜誌（Economist）批發物價指數的採用 1927 年爲基期。我國天津南開大學經濟學院所編的華北批發物價指數和天津工人生活費指數，都採 1926 年爲基期，北平社會調查所的北平生活費指數，採1927年爲基期，其餘國定稅則委員會所編的上海紗廠工人生活費指數，也採 1926 年爲基期。本局生活費指數爲容易和國內外指數比較起見，所以覺得採用 1926 年爲基期，很是適當。

(3)據本局統計，上海標金漲風，始於十八年(1929)秋，是年十二月平均每條爲規銀 438.48 兩，前幾年不過上落在三百至四百兩之間。到十九年，漲風更熾，十二月份平均每條爲 641.70 兩，如印度不停止傾銷屯銀的政策，和

各國不合謀救濟銀價的慘落，那末以後的情勢如何，正難逆料。我們這次採用民國十五年(1926)做指數基期，藉此或許可以窺測金價對於上海工人生計的影響是怎樣呢。

也許有人以爲用十五年爲基年，未必盡善，因爲有時要和其他指數比較，基期或有移動的必要。關於這點，所幸我們所採用的加權總合公式，有一個長處，就是與國內外其他指數互相比較的時候，基期可隨意移動，並沒有如用其他公式的指數要根本改算的麻煩。至於怎樣移動基期的方法，在上面計算公式問題的一節內，已經說過了。

III 民國十五年至二十年上海市工人生活費變遷說明

本編前兩章述生活費指數的意義和編製方法，本章說明民國十五年來上海工人生活費用的變遷。生活費的意義，就是社會上各階級維持其實際生活所必需的費用。本局工人生活費的研究是根據上海三百另五個工人家庭生活費用的調查，自十八年四月起至十九年三月止，計一年中，平均每家支出四百五十四元三角八分，其分配如下：

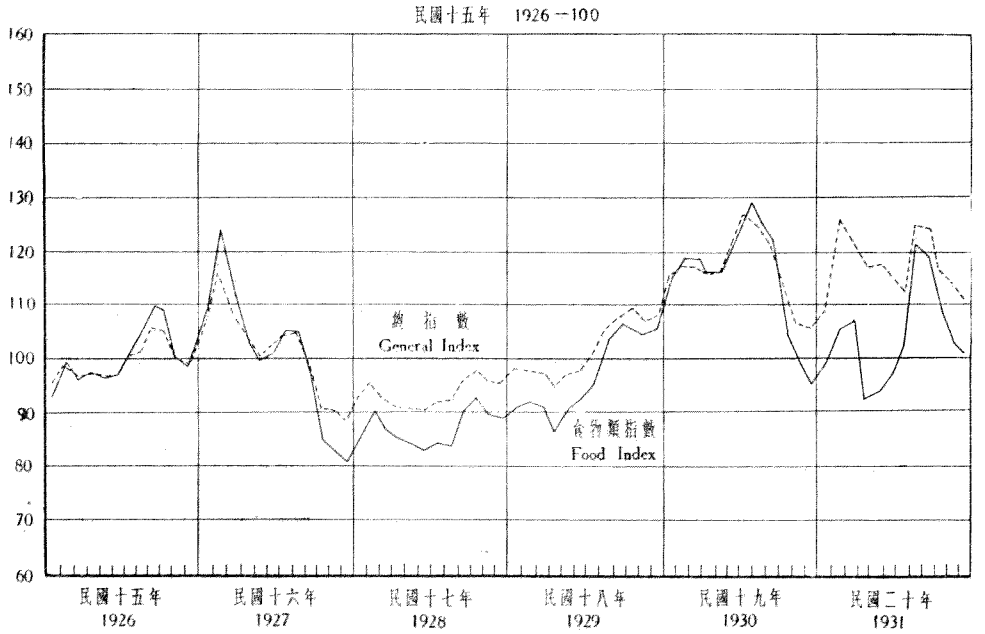
食　物	$ 241.54	53.2%
房　租	37.83	8.3
衣　着	34.01	7.5
燃　料	29.00	6.4
雜　項	112.00	24.6
合　計	$ 454.38	100.0%

表現生活費的變遷，是用生活費指數。所謂生活費指數，就是把社會上某階級在某時期的生活費，和基本時期相較，或增或減的比率罷了。本編生活費指數所搜羅的品目，共60種，計食物類 31，房租類3，衣着類 11，燃料類8，雜項類7，每類有一分類指數，以便研究各該類生活費用的變遷，另編一總指數，以明一般生活費的變遷。計算指數的公式是加權綜合法，以民國十五年(1926)爲基期，等于100。指數是按月計算，自民國十五年一月起，本編編至二十年十二月止，結果詳見表一。現在把自民國十五年以來上海工人各類生活費和一般生活費指數的變遷，分述如下：

食物類　民國十五年至二十年六年內食物類指數的變遷（詳見圖一和本編表一食物欄）和總指數很是一致。若以民國十五年爲基年，其指數等平均於100，那末十六年指數平均爲 100.71，比十五年高 0.71，十七年指數爲 87.32，比十六年低去 13.39，十八年指數平均爲 97.56，比十七年高 10.24，十九年指數平均爲 114.99，比十八年高 17.43，二十年指數平均爲104.10，比十九年低去 10.89。指數最低爲十六年十二月的 81.00，最高爲十九年七月的

127.92，差異爲 46.92 分。全時期中指數在 100 以上的共三十五個月，在 100 以下的共三十七個月。除十六年二月和十九年前三季指數曾有猛烈的飛騰之外，十六年九月起到十八年七月止，計共二十三個月，指數均在 100 以下，把一般生活費扯低得很多。

圖二 上海市工人生活費食物類指數與總指數圖
Chart 2. The Food Index



若將食物類指數按期分析起來，那末十五年上半年指數始終在 100 以下，最低爲一月的 92.58，下半年方始破出 100 以上，最高爲九月份的 109.83。自後逐漸下降，在十五年十二月曾降至 99.07。但入十六年，一月份指數又衝出 100 而飛達 109.63，二月更躍至 124.23，惟爲時甚暫，三月指數暴跌至 111.18，四月份又降至 104.41，以跌勢過猛，到五月遂在 100 以下，爲 99.84，四個月之間，指數竟有 24.39 分之迴顧。六月起雖然有一度的回漲，九月又落至 100以下。嗣後因米價狂跌，指數急趨下游，至十六年底指數達 81.00，爲六年中之最低點。十七年一二兩月，雖見回漲，三月起又復下趨，盤旋於 84 左右。到九月始見上漲，十月曾升至 93.18。以後各月又徘徊於 91 左右，到十八年七月，始

又呈激進的現象，八月指數衝出 100 以上，十月指數達 109.85。入十九年，指數更呈顯著的上升，計一月爲 114.66，二月爲 118.38，三四五月堅定，六七兩月又見激升，計七月指數達 127.92，爲六年中之最高峯。此後逐漸低落，九月起更飛速下降，十一月竟跌入 100 以內，至十二月指數爲 94.76。入二十年指數漸見上升，一月份爲 98.79，三月升至 106.85，四月突然降至 92 32. 五月起逐月見漲，八月指數達 121.07，爲本年之最高點，九月後始漸步跌，至十二月指數爲 100.38。

攷食物類中最重要的是食米一項，影響也最大。所以米價漲，指數常跟着漲。米價落，指數常跟着落，趨勢大概是一致的。上海從開埠以來，居民驟增，最近估計在三百萬以上，食米的供應，仰給外縣，其來源以常熟無錫爲最多，緣該兩縣既屬產米之區，又係聚米之地。常熟的來源，係常州江陰等貨色，無錫爲水陸交通的中心，且有遞清漕糧的歷史，宜溧金丹澄武等貨，大半堆存於此，米市營業，不亞於上海。此外還有商船公會的水販幫，卽船主自行出資向產稻區域裝運，因此蘇皖各縣的米，都在滬行銷。但近來本國米常不夠用，因此有大宗洋米的進口。

上海的米，既然完全靠各縣接濟，所以米價的漲落，須視產區收成的豐歉，到貨的湧旺與否爲定。十五年秋指數上升，就是受米價高漲的影響。因爲那時候內地米收告歉，更當青黃不接之際，來源頓稀，米價飛漲，每石（海斛——以下均同）售至十七元以上。十六年二月指數再度猛升，因近陰歷年關，米價仍站在十五元以上，而蔬菜一項，以供給過少，價格飛漲。十六年九月以後到十八年七月，食物類指數始終在 100 以下，因九月後新貨出場，米價暴落，直到十九年底，始終盤旋在十一元左右。十八年一月到七月，漲起元許，十八年八月始一躍而爲十五元二角一分。從前指數因物價的低落，扯下很多，所以今後因米價高漲，指數又提高不少。蓋自十八年秋收告歉之後，各埠到滬米船大減，滬上各棧存底，亦漸稀薄。以上海人口之多，且每日食品，以粳米爲主，秈米次之，環顧全市米店積貨，亦屬有限，於是一般內地客幫和本埠米商，見到這種情形，不免集資操縱，甚或暗中私運出口，因此本埠米價，遂逐步高漲。十八年

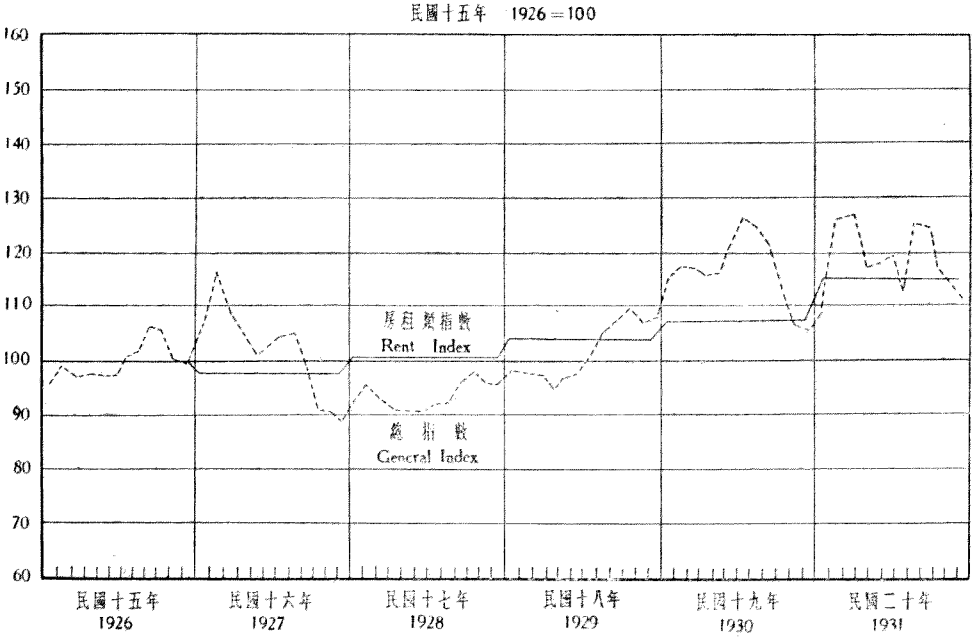
年內每石還不過在十六元左右，入十九年，價遂堅挺，由十五元而至十八元以上。當局雖出示嚴禁抬價，無如米客以奇貨可居，而各米店又以存積稀薄，雖價格昂貴，亦復暢進，高貨由十九元漲至二十元以上。據本局調查十九年六七八數月，二號粳米在二十一元左右，暗盤更不止此，中下階級遂大起恐慌。因此食物類指數在十九年七月曾升至 127.92，八月尚在 125.21。迨後各方呼籲，市政當局和各慈善團體鑒於民食之重要，除發起平糶外，又定購洋米十萬石接濟，加以是年秋收尚豐，到船湧旺，米價始見下跌，十月平均二號粳米爲十五元一角二分，十一月爲十三元四角八分，十二月爲十二元四角五分，食物類指數竟在 100 以下。二十年上半年承上年豐收之餘，米價逐步回小，一月份二號粳米平均價爲十二元三角二分，二月份驟跌至十一元七角三分，四月僅爲十元另九分，五六七月份雖係青黃不接的時候，但米價亦未見大漲，五月二號粳米平均爲十元五角一分，六月爲十元七角，七月爲十元八角二分。不過八九兩月，因各省大水爲災，米商見災象已成，大率囤米不售，所以米價飛速激漲，八月份二號粳米平均抬高至十四元另三分，九月爲十四元另四分。所以食物類指數也從七月的 102.16 猛升到八月的 121.07 和九月的 118.90，但不久賴外來洋米的接濟和俄美小麥的大量輸入，米價得以平復。十月平均二號粳米價格，跌到十二元七角，十二月更步跌至每石十一元三角八分，比十九年十二月更低廉了。

房租類

在圖三和本編表一房租欄，可以看出房租類指數比較平穩。若以十五年爲基年，使該年平均指數等於 100，那末十六年房租比十五年稍低爲 97.98，因是年革命軍占領上海，華界居民，受戰事影響，遷去不少，房屋頓現清冷之象，少人問詢。所以一般房主，非特不能加租，也有酌量減租，以廣招徠，房租遂不免有下降的趨勢。翌年戰事平定，市面又逐漸繁榮起來，不過圍工人區域地方比較荒僻，房租一時仍不易漲起，所以在十七年不過回復到十五年時候的租價。十八十九兩年房租漲象也很平穩，計指數平均每年漲 3 分餘而已。二十年房租升漲較速，平均指數爲 114.46，比十九年高 7.50。這是十九年爲本市地產事業最發達的一年，全年地產成交數目達一萬三千萬兩，全年工程總值達六千九百萬兩，房地產價值總額的增加達十萬萬兩。二十年份

受到這種地價高漲的影響，房租增高最烈，工人住屋區域雖比較的荒僻，但也不免要受到這種的餘波。

圖三 上海市工人生活費房租類指數與總指數圖
Chart 3. The Rent Index



調查房租的時候，住戶在房金以外所付的房捐，也計算在內。考上海於民國十八年前，還沒有房捐這個名目。民初滬北區有所謂總捐者，係將馬路工程及清道路燈等捐合併征收，因名總捐，由滬北工巡捐局按屋估租核征，規定四季征收，計店舖行棧，按照房租，每月抽收一成，居民住戶抽收六厘，考其性質，實在就是房捐。滬南一區，不稱總捐而稱地方公益稅，按照房租，商店月收百分之七至十二，住戶月收百分之五，民十三前由滬南工巡捐局征收，十三年恢復自治，歸市公所征收，其實也是房捐的性質。此外在滬南還有縣收房捐，按房租抽百分之十五，所以滬南商民，負担比滬北尤重。民十六革命軍抵上海，成立特別市政府，財政權統一，取消地方公益稅名目，停止縣收房捐，仿照滬北辦法，一律按季征收總捐。但是總捐僅征住戶，業主絕對沒有盡什麼義務，殊失賦稅平均之原則。加以市政建設日益發展，需費浩大，所以把總捐稅率，

酌量增加，計住宅按租額征收百分之十，商店按租額征收百分之十四，向主客各半征收，以均負担。捐率雖覺稍增，住戶負担反爲減輕。十七年冬市府公布修正征收房捐規則，其間業主曾經一度反對，但經勸導後，終於十八年春季開始實行新章 註一。

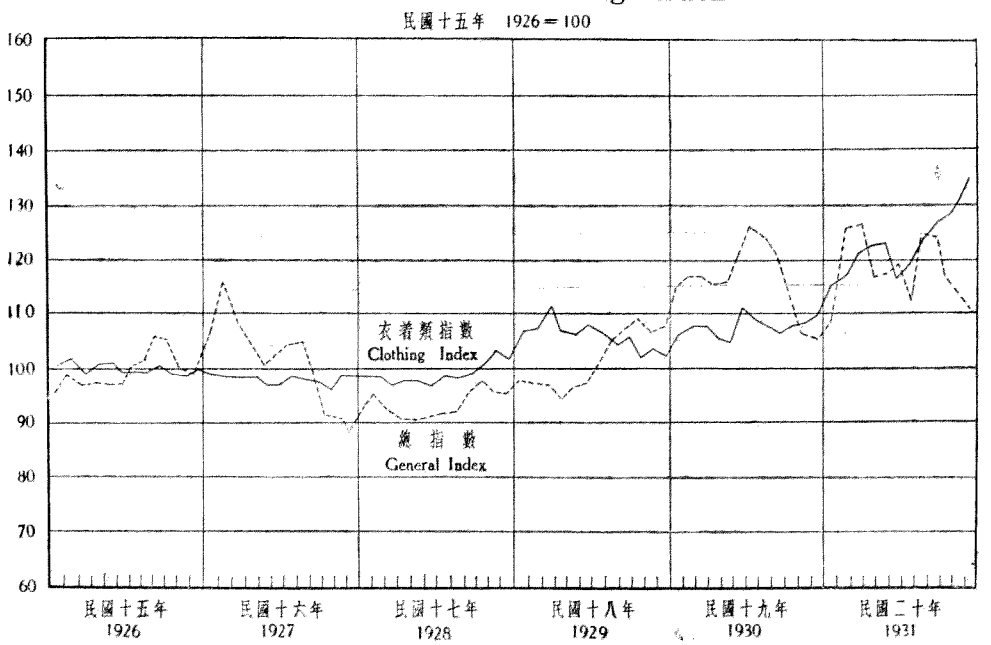
以上是華界房捐稅率變更的經過，至於公共租界房捐也是按照房租征收，普通房捐，十九年六月以前爲一分六厘，七月一日起，仍改征一分四厘，完全由住戶負担的 註二。

衣着類

自民國十五年一月以來，除房租外，衣着類趨勢也尚平穩，這在圖四和本編表一衣着欄可以看出來的。民國十六十七年兩年的指數平均，比基年（民國十五年）稍低，十八年指數平均爲 106.04，比十七年高 6.40，十九年指數平均爲 108.18，比十八年高 2.14，二十年指數平均爲 123.58，比十九年高 15.40，指數最高爲二十年十二月的 134.60，最低爲十六年十月的 97.16，高低相差爲 37.44 分。

圖四 上海市工人生活費衣着類指數與總指數圖

Chart 4. The Clothing Index



註一 參考上海市財政局十六年及十七年度業務報告

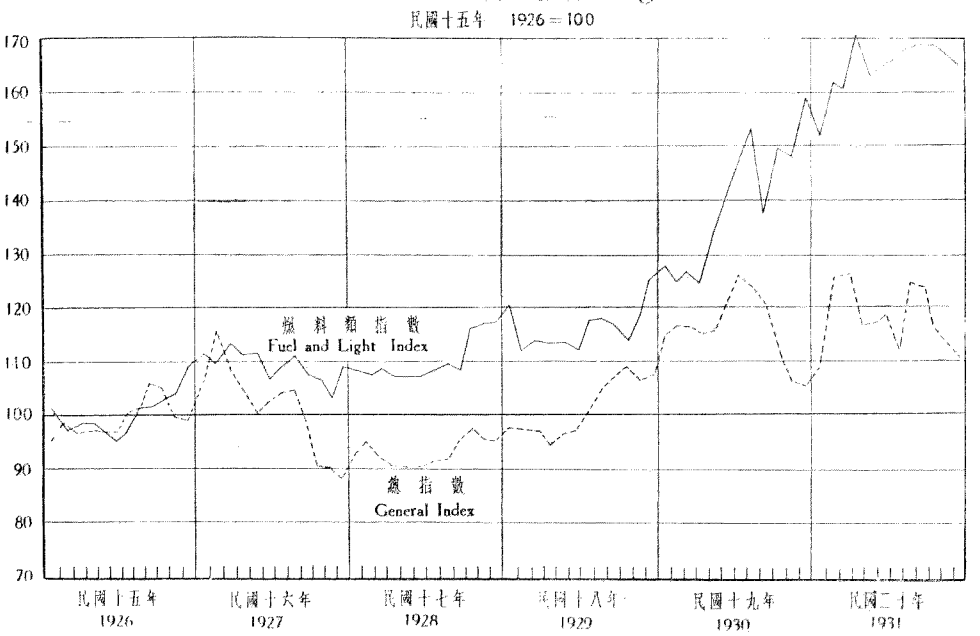
註二 參考一九三〇年公共租界工部局年報

查十七年十月前，指數常近 100，在此時期內，最高爲十五年二月的 102.18，最低爲十六年十月的 97.16。十七年十月起，指數逸出 100，是月爲 101.54。此後各價步漲，指數逐漸上升，十八年三月指數達 110.90，嗣後布業市況暗淡，價格回落，指數趨勢下降。入十九年，市況了無起色，上海棉織業各廠，奔走呼籲，本局且代請救濟，效果亦微，指數依然平疲。迨年尾各貨銷路較旺，價稍抬起，指數略升，至十九年十二月爲 109.95。至二十年，指數續升，上半年因金價狂漲，棉市堅挺，紗銷暢旺，棉織品的價目，大致趨昂。七月以後，上海棉市雖以海外收成，愈趨愈下，但因萬寶山及九一八事件相繼發，生本市抵貨運動劇烈，日貨輸華向以棉織品爲大宗，因此一律封存停售。國貨西貨，不免乘機抬價，所以八月指數爲 124.41，以後逐月上升，到了十二月指數猛升至 134.60，達六年來的最高峯。

燃料類

觀圖五和表一，燃料欄十五年一月到二十年十二月六年之中，燃料類指數，有穩健的向上趨勢。計十六年指數平均爲

圖五 上海市工人生活費燃料類指數與總指數圖
Chart 5. The Fuel and Light Index



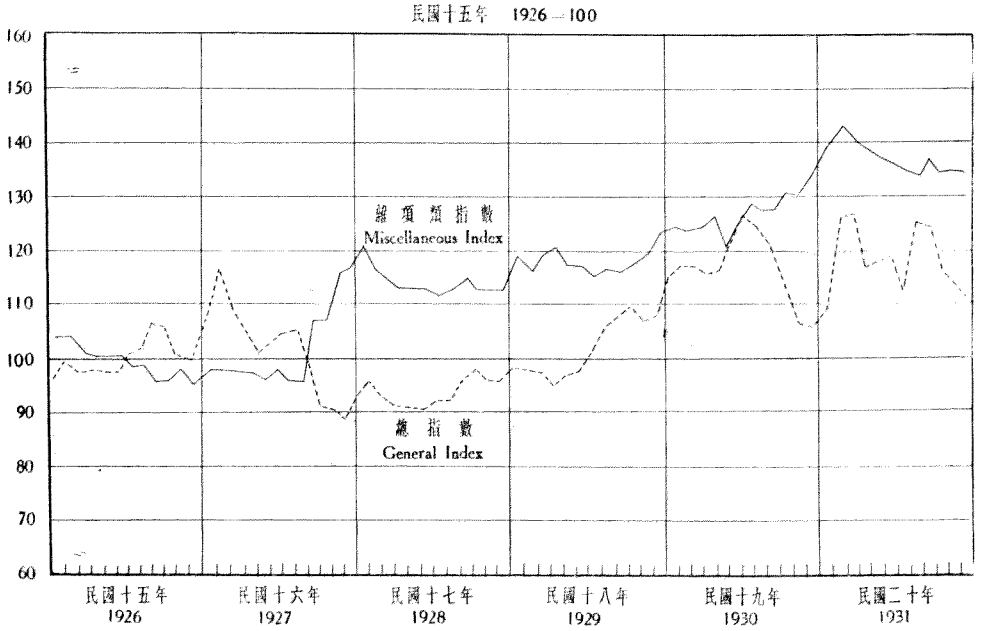
109.06，比十五年（基年）高出 9.06，十七年指數平均爲 110.23，比十六年高 1.17，十八年指數爲 117.61，比十七年高 7.38，十九年指數爲 140.47，比十八年高 22.86，二十年指數爲 164.62，比十九年更高 24.15，平均指數每年升高 15 分。指數最低爲十五年六月的 95.53，最高爲二十年四月的 170.65，高低相差至 75.12 分之巨。

如果把指數按期分析起來，十五年一月後，傾向下游，五六七數月適當盛暑，燃料用途較少，指數降至 96 左右。此後因煤油，劈柴，花箕柴的價格趨漲，指數逐漸上升，至十二月，柴炭等消費較旺，指數升至 108.83，爲本年之最高峯。自十六年一月至八月，指數常在 110 左右。年尾數月，煤油劈柴，價格較跌，指數亦較見下降，結果十六年指數比基年高 9.06。十七年前三季指數徘徊於 108 左右，十月起因劈柴稻柴猛漲，指數升至116.32，直至年底，趨勢堅挺，結果本年指數平均爲 110.23，比十六年又高 1.17。十八年一月，時值隆冬，煤油和炭，價格又漲，指數更升至120.23，煤油雖續漲不已，而劈柴稻柴花箕柴各價暴跌，二月指數遂降爲 111.91，直至六月，盤旋於 112 左右。十八年下半年各價趨漲，七月指數躍至 118.28，九十兩月雖稍見疲弱，但十二月因劈柴，木柴價漲，指數遂猛晉爲 125.71，計本年平均比十七年又升起 7.38。十九年燃料類指數上升甚巨，一月至四月趨勢尙平，但自五月起，煤油價格，以金貴銀賤而狂漲，四月平均每市斤爲 $0.074，至五月漲至 $0.099，七月爲 $0.130，十二月更飛漲至每斤爲 $0.143，比四月幾貴二倍。煤油既爲燃料類的最重要消費品，約佔總值百分之25，所以其餘各價，鄰無甚漲落，而指數爲之逐步升高，勢甚猛晉，計五月爲 134.26，至八月漸升至 152.88，九月大漲小跌，十月又見上升，到十二月因劈柴，木柴，稻柴等一致上漲，指數升至 158.86，十九年全年平均計比十八年高出 22.86 分之巨。二十年燃料類上漲尤巨，雖一月份因煤油價格回跌，而一度降落至 152.54，但自二月起，指數卽超出十九年各月以上，其中火柴一項，因二十年一月一日起，實施國定稅則，對於進口火柴稅率增高頗多，十九年火柴每盒平均價爲大洋九厘，二十年平均價升漲至一分三厘。而煤油一項，因金價關係，也急速的飛漲，四月份煤油每市斤平均漲至 $0.169，開歷年未有的

最高價，所以四月份燃料類指數也猛升至 170.65，爲六年來的最高峯。五月起煤油價目，逐步回低，指數隨之降落，七月爲 165.85，九十十一三個月，因花箕柴稻柴及炭一致高漲，指數又升至 169 以上，到了十二月各種燃料一致回落，所以指數也降落爲 164.84，不過比十九年全月仍高 8 分。

雜項類　觀圖六及表一雜項欄，民國十五年至二十年雜項類指數有繼續上升的傾向，不過趨勢比燃料類爲平。計十六年平均爲 102.23，比基年(十五年)高 2.23，十七年指數平均爲 114.00，比十六年高11.77；十八年指數平均爲 117.78，比十七年高 3.78，十九年指數平均爲 126.84，比十八年高 9.06，二十年指數平均爲 138.37，比十九年又高 11.53。指數最低爲十五年十二月的 94.96，最高爲二十年二月的 142.97，高低相差爲 48.01。

圖六 上海市工人生活費雜項類指數與總指數圖
Chart 6. The Miscellaneous Index



攷民國十五年上半年指數均在 100 以上，最高爲一二兩月的 104.31。下半年在 100 以下，最低爲十二月的 94.96，也就是六年中的最低點。十六年一月至八月，指數徘徊在 97 左右，九月起因香煙，黃酒價格挺漲，指數有顯著的上升，九月一躍爲 107.80，以後更盤旋上升。十七年一月達 121.37，二三兩月稍降，

此後常在 113 左右。十八年一月，逼近廢歷年關，指數升至 119.43，其後升降在 115 到 120 之間，十八年十二月銅元價暴漲(平均每元換銅元 279.2 枚)，於是以銅元零售之香煙開水等物品，其銀元價無形抬高，指數升至 123.59。入十九年，指數趨勢堅定，七月後又見挺秀，各價一致趨漲，計七月指數爲 129.26，八月漲後小跌，爲 128.10，十月起又復猛晉，至十二月，指數遂達 133.91。二十年銅元價繼續上升，全年平均每元祇換 269.2 枚，指數猛速上升，一月爲139.63，二月更飛漲至 142.97，達六年來的最高峯，與十五年十二月最低的 694.9 相差至 48.01 之巨，因爲肥皂香煙二項，都以稅率提高，價見挺秀，草紙亦復趨漲，三月起逐漸降落，三月指數爲 140.12，至八月指數僅 134.35，爲二十年之最低點，九月指數因肥皂香煙黃酒等項，突然漲至 137.40，十十一十二三個月指數徘徊在 135 左右。

一般生活費　若以民國十五年（基期）全年生活費指數平均等於 100，那末十六年的生活費指數平均爲 101.09，比基年高出1.09，十七年指數爲 93.21，比十六年低去 7.88，十八年指數爲 101.98，比十七年高 8.77，十九年指數爲 116.79，比十八年高 14.81，二十年爲 113.82，比十九年低 2.97。指數最高爲二十年三月的 126.56，最低爲十六年十二月的 89.06，高低相差計 37.50 分。

如果把指數再按期詳細地分析起來，那末民國十五年上半年各月指數，都在 100 以下，最低爲一月的 95.48，七月起指數漸升，至九月爲 106.46，歲尾總指數又見回跌，至十二月爲 99.57。入十六年，指數又迅速上升，二月達 116.67 的高峯，自此倏忽下降，到五月指數降至 100.18，四個月之間，差異竟達 16 分以上。嗣後指數稍見回升，但九月而後，秋收告豐，年成大熟，食物價格狂跌，燃料價格，復見下趨，指數遂急遽下降，九月跌入 100 以下，爲 99.16，十六年末月下落最甚，達 89.06，爲此六年中之最低點。十七年歲首指數曾有一度回漲，二月爲 95.38，嗣後趨向平疲，徘徊於 91 左右，九十月指數又見上升，迨後上落於 95 至 99 之間，到十八年七月指數逐漸升起，十月爲 109.84，歲尾兩月，上升後回跌二三分，至十二月指數爲 108.25。入十九年，食米類以米

價回漲頗勁，兼以廢歷年關，各價一致上升，燃料類之煤油，因金價高昂，上漲尤猛，其他如衣着雜項，價亦上趨，因此十九年一月指數驟升至 115.30，直至五月，維持在 117 左右，六月後，米煤油再度狂漲，煤油幾漲兩倍，指數遂飛速上升，七月達 126.38。嗣後因秋收告豐，米麵等跌勢頗勁，煤油劈柴等又一度暴落，指數猛速下降，至十九年十二月已跌至 105.23，幸燃料雜項，以後趨勢向上，跌勢稍挫。二十年一月因米價漸高，總指數升至 109.07，二月米價突高而雜項類指數又達六年來最高峯，總指數驟然上騰至 126.29，三月各類指數，大致均高，而食物衣着兩類，又見挺漲，總指數遂再度上升至 126.56，爲六年中的最高峯，四月份燃料類指數雖達六年來之最高點，但因食物類指數狂跌 14 分以上，故總指數下降頗勁，爲 117.23，此後三四月時升時降，常在此數盤旋，八月指數突高，爲 125.25，比上月猛漲 13 分之巨。因是月食物類指數以水災關係驟高，衣着類指數以抵貨運動見升，而燃料類亦同時抬高之故，九月起米價回落，各類指數雖高，總指數跌勢甚勁，九月爲 124.20，十月爲117.01，十一月爲 113.66，至二十年歲尾，食物類指數尤低，所以雖然衣着類指數猛升達六年來之最高峯，十二月總指數僅爲 111 39 而已。

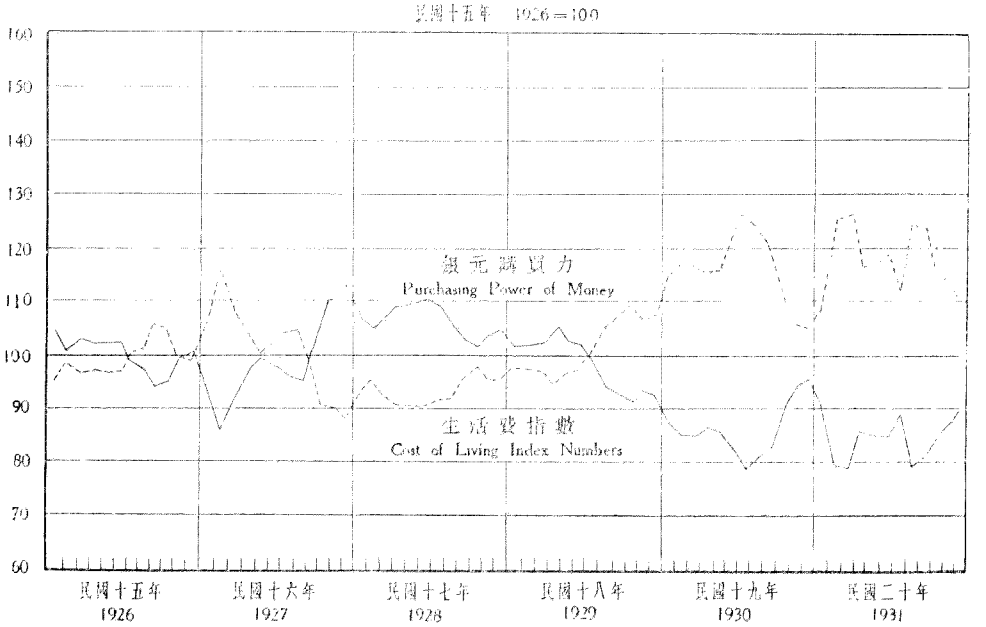
統觀六年之中，指數在 100 以上的共四十三個月，在 100 以下的共二十九個月，約爲三與二之比。初則各價高下，相差有限，局勢尚穩，繼則自十六年九月起至十八年六月止，其間二十二個月，指數始終在 100 以下，那是米價低落，指數因而下降，其間十六年十二月的 89.06 爲六年中的最低點。自十八年下半年起，秋收荒歉，米價狂漲，其後又因金貴銀賤，燃料雜項兩類一致上漲，指數猛晉不已，十九年七月達 126 38，十九年八月起，米價逐漸回跌，指數下降頗勁，二十年一月起，指數又漸上趨，至三月份遂達六年來的最高峯，四月起回落，其間雖有八月份的一度突高，但九月以後，趨向平疲，所以全年平均總指數比十八十九兩年略低。

我們如果再把各分類指數總起來看，那末食物類，指數常低於總指數，因食物類費用較多，影響也最大，所以總指數必爲之下降。就大體說，總指數常跟着食物類指數跑的。燃料類常高於總指數，有把總指數向上拉高的力量。雜

項類在第一年起，至第二年八月，常在總指數之下，此後則常高於總指數。房租衣着兩類，有時高於總指數，有時低於總指數，趨勢平穩，見圖一。

圖七 上海市工人生活費指數與銀元購買力圖

Chart 7. Cost of Living Index Numbers and Purchasing Power of Money



我們在圖七還看見有一道虛線，標着銀元購買力，在表一也有銀元購買力一欄，這究竟是什麼意思呢？要知道物價的漲落和銀元購買力的升降，恰恰成一個反比例，物價漲卽銀元購買力跌，物價跌卽銀元購買力升，二者實互爲倒數。所以批發物價指數的倒數，足以表明銀元在批發市場上的購買力，零售物價的指數的倒數，乃表明銀元在零售市場上的購買力。圖七中的虛線，就是表明上海零售市場上銀元購買力趨勢，其趨向和物價指數完全相反，此升彼降的比例也一致的。例如十六年一月生活費指數爲 106 96，其倒數爲93.49，卽爲銀元購買力。意思就是說，如果把十六年一月的銀元一元和十五年（基年）的一元相比較，那末銀元一元，在十六年一月購買物品的能力，（卽銀元的眞正價值），祇抵到十五年的銀元九角三分四厘九。換句話說，十六年一月的一元，祇值十五年的九角三分四厘九，所以物價和銀元購買力，好比一件東西，可以從兩方面來觀察。從貨物方面看，就是物價，從銀元方面看，就是銀元購買力，其實

兩樣就是一樣東西。物價指數之所以重要，因爲由此可以測量銀元的購買力，銀元購買力高，就是生活費低，生活容易，銀元購買力落，生活費漲，生活就覺着困難了。

指數和物價註一

INDEX NUMBERS AND RETAIL PRICES [1]

表一 上海市工人生活費指數表

民國十五年一月至民國二十年十二月

TABLE 1. THE COST OF LIVING INDEX NUMBERS OF LABORERS IN GREATER SHANGHAI (January 1926—December 1931)

民國十五年=100 Average of 1926=100

時期 Period	分類指數 Group Indexes: 食物 Food	房租 Rent	衣着 Clothing	燃料 Fuel & Light	雜項 Miscellaneous	總指數 General Index	銀元購買力 Purchasing Power of Money	比十五年全年平均增(+)或減(—)之分數 Deviation
民國十五年 1926	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	
一月 Jan.	92.58	100.00	100.59	101.17	104.31	95.48	104.73	+ 4.73
二月 Feb.	98.97	100.00	102.18	97.54	104.31	99.58	100.42	+ 0.42
三月 Mar.	96.05	100.00	99.29	97.93	101.21	97.25	102.83	+ 2.83
四月 Apr.	96.81	100.00	100.59	98.16	100.24	97.74	102.31	+ 2.31
五月 May	96.29	100.00	101.54	96.53	100.24	97.33	102.74	+ 2.74
六月 June	96.52	100.00	99.88	95.58	100.39	97.33	102.74	+ 2.74
七月 July	101.40	100.00	99.05	96.53	99.42	100.60	99.40	— 0.60
八月 Aug.	104.02	100.00	99.41	101.29	99.42	102.74	97.33	— 2.67
九月 Sep.	109.83	100.00	100.36	101.57	96.37	106.46	93.93	— 6.07
十月 Oct.	108.97	100.00	99.41	102.79	96.17	105.92	94.41	— 5.59
十一月 Nov.	100.15	100.00	98.82	104.42	98.16	100.23	99.77	— 0.23
十二月 Dec.	99.07	100.00	99.17	108.83	94.93	99.57	100.43	+ 0.43
民國十六年 1927	**100.71**	**97.98**	**98.82**	**109.06**	**102.23**	**101.09**	**98.92**	— **1.08**
一月 Jan.	109.63	97.98	99.76	111.01	98.49	106.96	93.49	— 6.51
二月 Feb.	124.23	97.98	99.29	109.78	97.92	116.67	85.71	— 14.29
三月 Mar.	111.58	97.98	99.17	113.58	98.11	108.43	92.18	— 7.82
四月 Apr.	104.41	97.98	99.17	111.63	98.11	103.43	96.68	— 3.32
五月 May	99.84	97.98	97.63	111.51	96.95	100.18	99.82	— 0.18
六月 June	101.61	97.98	97.39	107.49	97.82	101.13	98.88	— 1.12
七月 July	105.24	97.98	99.17	109.00	96.46	103.64	96.49	— 3.51
八月 Aug.	105.34	97.98	98.34	110.68	96.37	103.81	96.33	— 3.67
九月 Sep.	97.42	97.98	97.87	106.88	107.80	99.16	100.85	+ 0.85
十月 Oct.	85.59	97.98	97.16	106.20	107.70	91.02	109.87	+ 9.87
十一月 Nov.	83.18	97.98	99.88	102.91	115.89	90.02	111.09	+ 11.09
十二月 Dec.	81.00	97.98	99.41	108.50	116.91	89.06	112.28	+ 12.28
民國十七年 1928	**87.32**	**100.11**	**99.64**	**110.23**	**114.00**	**93.21**	**107.28**	+ **7.28**
一月 Jan.	85.80	100.11	99.05	108.11	121.37	92.91	107.63	+ 7.63
二月 Feb.	90.13	100.11	99.29	107.27	116.86	95.38	104.84	+ 4.84
三月 Mar.	86.93	100.11	97.51	108.16	115.21	93.08	107.43	+ 7.43
四月 Apr.	85.26	100.11	97.99	107.04	113.23	91.70	109.05	+ 9.05
五月 May	84.51	100.11	98.10	107.38	113.23	91.22	109.63	+ 9.63
六月 June	83.24	100.11	97.51	107.32	113.03	90.32	110.72	+ 10.72
七月 July	84.50	100.11	99.05	108.27	112.26	91.23	109.61	+ 9.61
八月 Aug.	84.31	100.11	99.05	109.78	113.08	91.30	109.53	+ 9.53
九月 Sep.	90.38	100.11	99.76	108.66	114.73	95.48	104.73	+ 4.73
十月 Oct.	93.18	100.11	101.54	116.32	113.18	97.89	102.16	+ 2.16
十一月 Nov.	90.06	100.11	102.73	117.16	112.98	95.87	104.31	+ 4.31
十二月 Dec.	89.67	100.11	102.37	117.10	113.18	95.62	104.58	+ 4.58

註一 歷年指數和物價數字,以本編爲準。

1 The figures in this publication are considered to be final.

表一 上海市工人生活費指數表(續)

民國十五年一月至民國二十年十二月

TABLE 1. THE COST OF LIVING INDEX NUMBERS OF LABORERS IN GREATER SHANGHAI

(January 1926—December 1931) —*Continued*

民國十五年=100 Average of 1926 = 100

時期 Period	分類指數 Group Indexes: 食物 Food	房租 Rent	衣着 Clothing	燃料 Fuel & Light	雜項 Miscellaneous	總指數 General Index	銀元購買力 Purchasing Power of Money	比十五年全年平均增(+)或減(−)之分數 Deviation
民國十八年 1929	**97.56**	**103.80**	**106.04**	**117.61**	**117.78**	**101.98**	**98.06**	**— 1.94**
一月 Jan.	91.38	103.80	107.23	120.23	119.43	98.19	101.84	+ 1.84
二月 Feb.	92.39	103.80	107.58	111.91	116.33	97.97	102.07	+ 2.07
三月 Mar.	91.14	103.80	110.90	113.69	119.38	97.66	102.40	+ 2.40
四月 Apr.	86.74	103.80	107.46	113.25	120.03	94.58	105.73	+ 5.73
五月 May	91.39	103.80	106.04	113.58	116.86	97.42	102.65	+ 2.65
六月 June	92.95	103.80	107.82	111.85	117.15	98.43	101.60	+ 1.60
七月 July	95.00	103.80	106.52	118.28	115.50	100.11	99.89	— 0.11
八月 Aug.	103.58	103.80	104.38	118.11	115.80	105.85	94.47	— 5.53
九月 Sep.	106.78	103.80	105.69	117.38	116.42	108.06	92.54	— 7.46
十月 Oct.	100.85	103.80	102.01	114.42	117.25	109.84	91.04	— 8.96
十一月 Nov.	104.22	103.80	104.03	119.01	119.48	106.06	93.76	— 6.24
十二月 Dec.	105.36	103.80	103.20	125.71	123.59	108.28	92.35	— 7.65
民國十九年 1930	**114.99**	**106.96**	**108.18**	**140.47**	**126.84**	**116.79**	**85.62**	**— 14.38**
一月 Jan.	114.66	106.96	103.75	127.95	124.13	115.30	86.73	— 13.27
二月 Feb.	118.48	106.96	107.82	124.65	123.60	117.55	85.07	— 14.93
三月 Mar.	117.99	106.96	108.06	126.72	124.03	117.50	85.11	— 14.89
四月 Apr.	116.61	106.96	106.99	125.21	126.50	116.63	85.74	— 14.26
五月 May	116.28	106.96	104.86	134.26	124.49	116.49	85.84	— 14.16
六月 June	122.46	106.96	110.31	142.26	124.27	121.83	82.08	— 17.92
七月 July	127.92	106.96	109.60	148.07	129.26	126.38	79.13	— 20.87
八月 Aug.	125.21	106.96	107.82	152.88	128.10	124.75	80.16	— 19.84
九月 Sep.	121.85	106.96	107.11	137.23	128.34	121.26	82.47	— 17.53
十月 Oct.	104.49	106.96	103.29	149.69	130.86	110.77	90.28	— 9.72
十一月 Nov.	98.58	106.96	109.36	148.24	130.14	106.64	93.77	— 6.23
十二月 Dec.	94.76	106.96	109.95	158.86	133.91	105.23	95.03	— 4.97
民國二十年 1931	**104.10**	**114.46**	**123.58**	**164.62**	**138.37**	**113.82**	**87.86**	**— 12.14**
一月 Jan.	98.79	114.46	114.93	152.54	139.63	109.07	91.68	— 8.32
二月 Feb.	105.78	114.46	117.30	161.99	142.97	126.20	79.18	— 20.82
三月 Mar.	106.85	114.46	121.68	161.61	140.12	126.56	79.01	— 20.91
四月 Apr.	92.32	114.46	122.51	170.65	139.05	117.23	85.30	— 14.70
五月 May	94.22	114.46	122.87	163.39	136.68	117.62	85.02	— 14.98
六月 June	96.62	114.46	116.59	165.51	136.34	119.21	83.89	— 16.11
七月 July	102.16	114.46	118.84	165.85	135.37	112.11	89.20	— 10.80
八月 Aug.	121.07	114.46	124.41	168.75	134.35	125.25	79.84	— 20.16
九月 Sep.	118.90	114.46	127.01	169.37	137.49	124.20	80.52	— 19.48
十月 Oct.	108.56	114.46	129.03	169.26	134.50	117.91	85.46	— 14.54
十一月 Nov.	103.26	114.46	131.75	169.93	135.37	113.66	87.98	— 12.02
十二月 Dec.	109.38	114.46	134.60	161.84	134.88	111.39	89.77	— 10.23

* 全年指數,係用全年各月平均價計算。

* The yearly indexes are computed from the average yearly prices.

表二 上海市零售物價表 民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)

品名 Commodities	食物 FOOD														
	粳米（二號）Unglutinous Rice	秈米（一號）Sien Rice	糯米（雙元）Glutinous Rice	麵粉（老車牌）Wheat Flour	切麵 Fresh Noodle	豆腐 Bean Curd	豆腐乾 Dried Bean Curd	百頁 Sheet Bean Curd	油豆腐 Fried Bean Curd	發芽豆 Sprouted Broad Bean	綠粉 Fresh Mung Bean Starch in Strips	黃豆芽 Yellow Soy Bean Sprouts	鹹雪菜 Hsueh-li-hung (Salted)	青菜 Chin-ts'ai	白蘿蔔 Turnips
貨品單位 Unit*	石 Shih	石 Shih	石 Shih	包 Parcel	斤 Chin	塊 Piece	塊 Piece	張 Sheet	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin
民國十五年 1926	$ **13.342**	$ **11.988**	$ **13.877**	$ **3.231**	$ **0.078**	$ **0.0077**	$ **0.0058**	$ **0.0046**	$ **0.210**	$ **0.033**	$ **0.052**	$ **0.030**	$ **0.035**	$ **0.024**	$ **0.024**
一月 Jan.	11.317	11.074	11.602	3.445	0.085	0.0082	0.0061	0.0049	0.223	0.035	0.055	0.027	0.036	0.020	0.016
二月 Feb.	12.289	11.697	12.764	3.400	0.085	0.0081	0.0061	0.0049	0.223	0.035	0.055	0.031	0.041	0.030	0.014
三月 Mar.	12.469	11.648	13.178	3.340	0.082	0.0079	0.0059	0.0047	0.215	0.033	0.054	0.026	0.038	0.017	0.017
四月 Apr.	13.177	11.486	13.652	3.220	0.081	0.0077	0.0058	0.0047	0.211	0.033	0.053	0.028	0.031	0.019	0.021
五月 May	13.409	11.496	13.610	3.100	0.076	0.0077	0.0058	0.0046	0.209	0.032	0.052	0.026	0.028	0.015	0.031
六月 June	13.533	11.141	13.719	3.015	0.073	0.0077	0.0058	0.0046	0.209	0.032	0.052	0.026	0.032	0.018	0.026
七月 July	13.896	12.036	14.180	3.010	0.073	0.0077	0.0058	0.0046	0.209	0.032	0.052	0.026	0.035	0.026	0.030
八月 Aug.	14.677	12.884	15.057	3.070	0.073	0.0076	0.0057	0.0046	0.208	0.032	0.052	0.028	0.035	0.020	0.037
九月 Sep.	14.894	12.976	15.655	3.335	0.077	0.0073	0.0055	0.0044	0.200	0.032	0.050	0.032	0.037	0.040	0.035
十月 Oct.	14.138	12.743	15.015	3.270	0.077	0.0074	0.0056	0.0044	0.200	0.032	0.050	0.042	0.038	0.053	0.032
十一月 Nov.	13.208	12.680	14.550	3.290	0.079	0.0075	0.0057	0.0046	0.205	0.032	0.051	0.036	0.035	0.017	0.019
十二月 Dec.	13.111	12.494	13.542	3.280	0.078	0.0074	0.0056	0.0044	0.203	0.038	0.050	0.036	0.032	0.015	0.015
民國十六年 1927	**12.250**	**11.174**	**12.352**	**3.278**	**0.072**	**0.0072**	**0.0055**	**0.0043**	**0.197**	**0.038**	**0.049**	**0.036**	**0.037**	**0.049**	**0.034**
一月 Jan.	12.849	12.278	13.990	3.445	0.079	0.0076	0.0057	0.0046	0.207	0.039	0.052	0.039	0.036	0.076	0.026
二月 Feb.	13.018	12.018	13.694	3.435	0.077	0.0073	0.0055	0.0044	0.200	0.046	0.050	0.056	0.050	0.151	0.048
三月 Mar.	12.609	11.845	13.091	3.410	0.076	0.0073	0.0055	0.0043	0.198	0.038	0.049	0.038	0.039	0.095	0.050
四月 Apr.	12.489	11.904	12.834	3.495	0.075	0.0072	0.0054	0.0043	0.197	0.037	0.049	0.035	0.032	0.059	0.059
五月 May	13.413	12.187	14.022	3.470	0.075	0.0072	0.0054	0.0043	0.196	0.037	0.049	0.034	0.029	0.026	0.026
六月 June	14.128	12.618	13.204	3.226	0.074	0.0073	0.0055	0.0043	0.198	0.038	0.049	0.032	0.032	0.022	0.016
七月 July	14.292	12.447	12.912	3.270	0.069	0.0072	0.0054	0.0043	0.196	0.037	0.049	0.031	0.037	0.040	0.030
八月 Aug.	14.004	11.919	12.697	3.270	0.068	0.0072	0.0054	0.0043	0.195	0.037	0.049	0.033	0.035	0.043	0.046
九月 Sep.	12.166	10.552	11.553	3.225	0.068	0.0071	0.0054	0.0043	0.195	0.037	0.049	0.032	0.038	0.037	0.040
十月 Oct.	9.827	9.207	10.429	3.025	0.067	0.0071	0.0054	0.0043	0.194	0.037	0.049	0.034	0.041	0.018	0.025
十一月 Nov.	9.118	8.797	10.020	3.020	0.067	0.0071	0.0054	0.0043	0.194	0.037	0.049	0.036	0.036	0.014	0.021
十二月 Dec.	9.024	8.319	9.778	3.040	0.069	0.0073	0.0055	0.0043	0.199	0.038	0.049	0.036	0.036	0.011	0.018

表二 上海市零售物價指數表（續） 民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	食物 FOOD														
	粳米（二號）Unglutinous Rice	秈米（一號）Sien Rice	糯米（鏡元）Glutinous Rice	麵粉（老車牌）Wheat Flour	切麵 Fresh Noodle	豆腐 Bean Curd	豆腐乾 Dried Bean Curd	百頁 Sheet Bean Curd	油豆腐 Fried Bean Curd	發芽豆 Sprouted Broad Bean	線粉 Fresh Mung Bean Starch in Strips	黃豆芽 Yellow Soy Bean Sprouts	鹹雪菜 Hsueh li-hung	青菜 Chin-ts'ai	白蘿蔔 Turnips
貨品單位 Unit	石 Shih	石 Shih	石 Shih	包 Parcel	斤 Chin	塊 Piece	塊 Piece	張 Sheet	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin
民國十七年 1928	$ 9.372	$ 9.171	$ 11.251	$ 3.102	$ 0.066	$ 0.0070	$ 0.0055	$ 0.0042	$ 0.191	$ 0.038	$ 0.048	$ 0.037	$ 0.039	$ 0.028	$ 0.035
一月 Jan.	9.120	9.129	10.809	3.140	0.072	0.0077	0.0059	0.0046	0.209	0.039	0.052	0.039	0.039	0.029	0.024
二月 Feb.	9.255	9.425	10.704	3.310	0.069	0.0075	0.0055	0.0044	0.199	0.038	0.049	0.038	0.042	0.030	0.026
三月 Mar.	9.614	9.321	10.763	3.250	0.067	0.0071	0.0053	0.0042	0.193	0.037	0.049	0.037	0.038	0.020	0.022
四月 Apr.	9.408	9.258	10.848	3.240	0.066	0.0070	0.0052	0.0042	0.190	0.036	0.048	0.036	0.034	0.017	0.020
五月 May	9.366	9.298	10.788	2.965	0.065	0.0070	0.0052	0.0042	0.188	0.036	0.047	0.036	0.036	0.018	0.018
六月 June	9.129	8.784	10.778	2.875	0.064	0.0068	0.0051	0.0041	0.185	0.035	0.046	0.035	0.037	0.023	0.020
七月 July	8.770	8.536	11.178	2.900	0.068	0.0072	0.0054	0.0043	0.195	0.037	0.049	0.037	0.038	0.031	0.070
八月 Aug.	8.684	8.501	11.355	2.990	0.064	0.0068	0.0051	0.0041	0.186	0.035	0.047	0.035	0.041	0.027	0.072
九月 Sep.	9.136	9.052	11.592	3.080	0.065	0.0068	0.0051	0.0041	0.187	0.035	0.047	0.035	0.044	0.045	0.066
十月 Oct.	9.744	9.400	12.457	3.110	0.064	0.0068	0.0051	0.0041	0.186	0.041	0.046	0.039	0.041	0.054	0.037
十一月 Nov.	10.031	9.791	12.419	3.160	0.064	0.0068	0.0051	0.0041	0.185	0.040	0.046	0.040	0.039	0.029	0.027
十二月 Dec.	10.052	9.862	13.082	3.270	0.064	0.0068	0.0051	0.0041	0.185	0.041	0.046	0.038	0.037	0.024	0.021
民國十八年 1929	11.678	11.420	14.350	3.202	0.065	0.0068	0.0059	0.0046	0.207	0.039	0.047	0.032	0.045	0.025	0.030
一月 Jan.	10.287	10.262	13.212	3.220	0.068	0.0072	0.0054	0.0043	0.196	0.043	0.049	0.032	0.044	0.025	0.029
二月 Feb.	10.414	10.262	13.736	3.263	0.066	0.0070	0.0053	0.0042	0.191	0.045	0.048	0.033	0.047	0.022	0.019
三月 Mar.	10.582	10.507	14.359	3.257	0.063	0.0067	0.0051	0.0041	0.183	0.039	0.046	0.030	0.043	0.019	0.016
四月 Apr.	9.801	10.183	13.997	3.126	0.064	0.0067	0.0051	0.0041	0.185	0.038	0.046	0.032	0.039	0.019	0.015
五月 May	10.761	10.515	14.430	2.948	0.064	0.0067	0.0051	0.0041	0.183	0.037	0.046	0.032	0.038	0.025	0.038
六月 June	10.989	10.799	14.763	3.020	0.064	0.0067	0.0051	0.0041	0.183	0.037	0.046	0.030	0.041	0.029	0.042
七月 July	11.208	11.049	14.157	3.250	0.064	0.0067	0.0059	0.0046	0.205	0.038	0.046	0.028	0.044	0.022	0.047
八月 Aug.	12.860	12.014	15.985	3.253	0.065	0.0067	0.0067	0.0051	0.228	0.038	0.046	0.032	0.046	0.033	0.051
九月 Sep.	12.872	12.326	14.920	3.248	0.063	0.0067	0.0067	0.0050	0.228	0.038	0.046	0.032	0.050	0.040	0.048
十月 Oct.	14.249	13.258	15.441	3.238	0.064	0.0067	0.0067	0.0051	0.229	0.038	0.046	0.032	0.053	0.029	0.027
十一月 Nov.	13.034	12.647	14.972	3.286	0.067	0.0069	0.0069	0.0052	0.235	0.039	0.047	0.033	0.049	0.020	0.018
十二月 Dec.	13.084	13.215	14.244	3.354	0.069	0.0072	0.0072	0.0054	0.244	0.042	0.049	0.032	0.050	0.018	0.020

表二　上海市零售物價表(續)　民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	食物 FOOD														
	粳米(二號) Unglutonous Rice	籼米(一號) Sien Rice	糯米(雙元) Glutinous Rice	麵粉(老車牌) Wheat Flour	切麵 Fresh Noodle	豆腐 Bean Curd	豆腐乾 Dried Bean Curd	百頁 Sheet Bean Curd	油豆腐 Fried Bean Curd	發芽豆 Sprouted Broad Bean	綠粉 Fresh Mung Bean Starch in Strips	黃豆芽 Yellow Soy Bean Sprouts	鹹雪菜 Hsueh-li-hung	青菜 Chin-ts'ai	白蘿蔔 Turnips
貨品單位 Unit	石 Shih	石 Shih	石 Shih	包 Parcel	斤 Chin	塊 Piece	塊 Piece	張 Sheet	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin
民國十五年	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
1930	**14 770**	**13 605**	**14 693**	**3 500**	**0 076**	**0 0071**	**0 0071**	**0 0054**	**0 243**	**0 046**	**0 049**	**0.035**	**0 053**	**0 031**	**0 036**
一月 Jan.	14.567	13.911	14.883	3.572	0.072	0.0073	0.0073	0.0055	0.250	0.043	0.050	0.037	0.054	0.031	0.026
二月 Feb.	14.635	13.975	14.451	3.685	0.077	0.0070	0.0070	0.0053	0.240	0.043	0.048	0.037	0.055	0.049	0.026
三月 Mar.	14.970	14.117	14.392	3.570	0.076	0.0071	0.0071	0.0054	0.242	0.044	0.049	0.036	0.056	0.038	0.029
四月 Apr.	15.798	14.867	15.107	3.605	0.076	0.0071	0.0071	0.0053	0.242	0.044	0.049	0.035	0.049	0.021	0.032
五月 May	15.871	15.456	15.186	3.544	0.071	0.0069	0.0069	0.0052	0.236	0.044	0.048	0.032	0.044	0.019	0.043
六月 June	17.053	15.454	15.666	3.871	0.077	0.0069	0.0069	0.0052	0.236	0.041	0.048	0.032	0.046	0.026	0.037
七月 July	17.625	16.123	15.427	3.604	0.074	0.0071	0.0071	0.0054	0.242	0.044	0.049	0.033	0.048	0.036	0.043
八月 Aug.	16.489	15.007	15.905	3.563	0.077	0.0071	0.0071	0.0053	0.249	0.045	0.048	0.035	0.056	0.043	0.054
九月 Sep.	15.531	13.339	15.903	3.465	0.078	0.0071	0.0071	0.0053	0.242	0.053	0.049	0.036	0.067	0.038	0.056
十月 Oct.	12.786	10.304	13.932	3.304	0.076	0.0071	0.0071	0.0053	0.242	0.050	0.049	0.036	0.061	0.027	0.037
十一月 Nov.	11.401	10.366	13.042	3.154	0.081	0.0072	0.0072	0.0054	0.245	0.051	0.049	0.035	0.052	0.023	0.028
十二月 Dec.	10.526	10.342	11.417	3.064	0.080	0.0075	0.0075	0.0056	0.255	0.049	0.051	0.035	0.050	0.018	0.024
民國二十年															
1931	**11.310**	**10 962**	**11 307**	**2 925**	**0 074**	**0 0074**	**0 0074**	**0.0056**	**0 255**	**0 056**	**0 058**	**0.038**	**0.054**	**0 045**	**0 038**
一月 Jan.	10.417	10.518	11.127	3.053	0.080	0.0076	0.0076	0.0057	0.270	0.051	0.053	0.039	0.055	0.035	0.026
二月 Feb.	9.922	10.185	10 833	3.119	0.079	0.0079	0.0079	0.0059	0.275	0.057	0.054	0.044	0.059	0.075	0.028
三月 Mar.	9.888	10 269	9.491	3.030	0.079	0.0075	0.0075	0.0057	0.264	0.060	0.052	0.040	0.076	0.081	0.025
四月 Apr.	9.876	9.930	10.108	2.987	0.073	0.0075	0.0075	0.0056	0.255	0.051	0.051	0.034	0.054	0.027	0.025
五月 May	10 511	10.349	10.797	2.959	0.072	0.0073	0.0073	0.0055	0.248	0.050	0.049	0.032	0.049	0.023	0.043
六月 June	10.708	10.458	11.058	2.969	0.072	0.0073	0.0073	0.0055	0.248	0.050	0.051	0.036	0.044	0.027	0.036
七月 July	10.826	10.366	10.474	2.857	0.071	0.0073	0.0073	0.0055	0.248	0.051	0.051	0.035	0.047	0.055	0.049
八月 Aug.	14.032	13 012	12.641	3.010	0.073	0.0073	0.0073	0.0055	0.249	0.051	0.051	0.040	0.052	0.066	0.066
九月 Sep.	14.045	13.276	13.304	2.942	0.074	0.0074	0.0074	0.0056	0.253	0.063	0.060	0.042	0 057	0.045	0.069
十月 Oct.	12.708	11.349	12.262	2.770	0.073	0.0073	0.0073	0.0055	0.250	0.065	0.073	0.040	0.054	0.039	0.046
十一月 Nov.	11.902	11.002	11.883	2.771	0.073	0.0073	0.0073	0.0055	0.248	0.061	0.073	0.038	0.047	0.033	0.026
十二月 Dec.	11.380	10.841	11.751	2.645	0.074	0.0074	0.0074	0.0056	0.251	0.061	0.074	0.040	0.048	0.033	0.023

表二 上海市零售物價表(續) 民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	食物 FOOD														
	洋山芋 Sweet Potatoes	葷菜 Allium Odorum	菠菜 Spinach	鮮猪肉 Fresh Pork	鮮牛肉 Fresh Beef	鹹猪肉 Salted Pork	雞(活) Chicken	鮮鯽魚 Silver Carp	鮮魚 Fresh Fish	鹹白魚 Salted White Fish	鮮鴨蛋 Fresh Duck's Egg	豆油 Soy Bean Oil	醬油(雙套) Soy Bean Sauce	猪油 Lard	食鹽 Salt
貨品單位 Unit*	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	個 Piece	斤 Chin	斤 Chin	斤 Chin	斤 Chin
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
民國十五年 1926	**0.030**	**0.040**	**0.037**	**0.274**	**0.208**	**0.259**	**0.344**	**0.391**	**0.173**	**0.106**	**0.028**	**0.173**	**0.062**	**0.280**	**0.047**
一月 Jan.	0.038		0.048	0.271	0.234	0.236	0.303	0.355	0.167	0.112	0.031	0.176	0.062	0.291	0.046
二月 Feb.	0.033		0.038	0.279	0.252	0.209	0.405	0.412	0.192	0.109	0.031	0.176	0.062	0.303	0.046
三月 Mar.	0.036	0.078	0.030	0.266	0.215	0.202	0.368	0.359	0.170	0.107	0.030	0.175	0.062	0.280	0.047
四月 Apr.	0.032	0.037	0.016	0.270	0.197	0.227	0.325	0.344	0.164	0.106	0.029	0.171	0.062	0.277	0.047
五月 May	0.026	0.026	0.022	0.263	0.192	0.284	0.309	0.345	0.146	0.110	0.029	0.170	0.062	0.267	0.046
六月 June	0.023	0.023	0.027	0.272	0.184	0.307	0.360	0.429	0.136	0.113	0.027	0.169	0.062	0.269	0.047
七月 July	0.025	0.028		0.275	0.176	0.307	0.347	0.412	0.176	0.116	0.027	0.170	0.062	0.253	0.046
八月 Aug.	0.022	0.037		0.275	0.189	0.315	0.355	0.419	0.205	0.104	0.027	0.169	0.062	0.248	0.046
九月 Sep.	0.029	0.043	0.075	0.263	0.209	0.332	0.356	0.418	0.217	0.094	0.026	0.171	0.062	0.265	0.046
十月 Oct.	0.030	0.040	0.056	0.284	0.212	0.222	0.362	0.415	0.170	0.095	0.028	0.171	0.062	0.295	0.047
十一月 Nov.	0.033	0.044	0.038	0.286	0.215	0.225	0.333	0.388	0.171	0.096	0.028	0.176	0.062	0.309	0.049
十二月 Dec.	0.035	0.048	0.035	0.287	0.234	0.237	0.304	0.394	0.161	0.109	0.028	0.177	0.062	0.311	0.049
民國十六年 1927	**0.034**	**0.044**	**0.049**	**0.280**	**0.212**	**0.280**	**0.375**	**0.352**	**0.152**	**0.102**	**0.027**	**0.193**	**0.068**	**0.293**	**0.043**
一月 Jan.	0.036		0.059	0.292	0.218	0.295	0.328	0.346	0.167	0.090	0.028	0.194	0.068	0.313	0.043
二月 Feb.	0.049		0.096	0.311	0.222	0.228	0.411	0.358	0.168	0.088	0.027	0.194	0.068	0.333	0.042
三月 Mar.	0.052	0.095	0.048	0.286	0.216	0.217	0.378	0.274	0.147	0.087	0.027	0.193	0.068	0.295	0.040
四月 Apr.	0.041	0.052	0.041	0.280	0.223	0.228	0.394	0.297	0.136	0.091	0.027	0.192	0.068	0.283	0.042
五月 May	0.033	0.029	0.027	0.256	0.199	0.274	0.405	0.300	0.125	0.091	0.027	0.193	0.068	0.278	0.042
六月 June	0.025	0.031	0.032	0.253	0.193	0.332	0.409	0.322	0.118	0.100	0.027	0.194	0.068	0.280	0.042
七月 July	0.021	0.035		0.261	0.199	0.318	0.407	0.308	0.122	0.107	0.025	0.194	0.068	0.269	0.042
八月 Aug.	0.032	0.038		0.269	0.197	0.322	0.384	0.309	0.139	0.108	0.027	0.194	0.068	0.292	0.042
九月 Sep.	0.031	0.032	0.081	0.263	0.214	0.316	0.386	0.397	0.158	0.108	0.027	0.193	0.068	0.291	0.043
十月 Oct.	0.028	0.036	0.057	0.268	0.220	0.302	0.313	0.410	0.190	0.110	0.027	0.190	0.068	0.285	0.044
十一月 Nov.	0.039	0.041	0.048	0.317	0.223	0.291	0.380	0.414	0.181	0.121	0.027	0.190	0.068	0.296	0.044
十二月 Dec.	0.033	0.045	0.038	0.300	0.215	0.298	0.320	0.403	0.176	0.124	0.027	0.190	0.068	0.300	0.044

表二 上海市零售物價表（續） 民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	食物 FOOD														
	洋山芋 Sweet Potatoes	韭菜 Allium Odorum	菠菜 Spinach	鮮猪肉 Fresh Pork	鮮牛肉 Fresh Beef	鹹猪肉 Salted Pork	鷄(活) Chicken	鮮鯽魚 Silver Carp	鮮魚 Fresh Fish	鹹白魚 Salted White Fish	鮮鴨蛋 Fresh Duck's Egg	豆油 Soy Bean Oil	醬油(雙套) Soy Bean Sauce	猪油 Lard	食鹽 Salt
貨品單位 Unit	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	個 Piece	斤 Chin	斤 Chin	斤 Chin	斤 Chin
民國十七年 1928	$ 0.033	$ 0.038	$ 0.032	$ 0.299	$ 0.213	$ 0.318	$ 0.392	$ 0.354	$ 0.160	$ 0.109	$ 0.026	$ 0.206	$ 0.073	$ 0.304	$ 0.061
一月 Jan.	0.041		0.041	0.305	0.227	0.294	0.372	0.400	0.155	0.127	0.029	0.211	0.068	0.304	0.052
二月 Feb.	0.044		0.038	0.334	0.228	0.280	0.453	0.355	0.192	0.113	0.027	0.211	0.073	0.327	0.055
三月 Mar.	0.036	0.066	0.032	0.296	0.229	0.317	0.395	0.341	0.156	0.102	0.027	0.210	0.073	0.321	0.055
四月 Apr.	0.036	0.024	0.020	0.294	0.201	0.366	0.411	0.310	0.157	0.107	0.026	0.208	0.073	0.291	0.070
五月 May	0.032	0.020	0.021	0.300	0.200	0.369	0.406	0.328	0.134	0.107	0.026	0.205	0.073	0.301	0.066
六月 June	0.026	0.026	0.022	0.295	0.198	0.369	0.386	0.295	0.126	0.107	0.025	0.205	0.073	0.286	0.066
七月 July	0.027	0.030		0.286	0.188	0.384	0.415	0.352	0.121	0.108	0.027	0.209	0.073	0.278	0.068
八月 Aug.	0.028	0.032		0.292	0.201	0.375	0.387	0.399	0.157	0.107	0.026	0.208	0.073	0.280	0.066
九月 Sep.	0.031	0.035		0.303	0.217	0.325	0.390	0.436	0.173	0.105	0.026	0.208	0.073	0.288	0.065
十月 Oct.	0.030	0.038	0.059	0.300	0.219	0.244	0.405	0.343	0.176	0.104	0.026	0.206	0.073	0.309	0.057
十一月 Nov.	0.032	0.040	0.040	0.291	0.226	0.254	0.331	0.363	0.186	0.098	0.025	0.206	0.073	0.327	0.057
十二月 Dec.	0.038	0.049	0.045	0.297	0.235	0.243	0.352	0.329	0.181	0.124	0.026	0.206	0.073	0.332	0.057
民國十八年 1929	0.034	0.040	0.029	0.293	0.228	0.293	0.360	0.337	0.173	0.147	0.028	0.195	0.078	0.305	0.067
一月 Jan.	0.043		0.030	0.294	0.239	0.269	0.350	0.286	0.171	0.141	0.033	0.194	0.076	0.335	0.066
二月 Feb.	0.055		0.032	0.303	0.217	0.267	0.354	0.311	0.205	0.126	0.034	0.194	0.076	0.360	0.066
三月 Mar.	0.045	0.039	0.014	0.297	0.223	0.288	0.363	0.296	0.189	0.117	0.028	0.185	0.075	0.321	0.066
四月 Apr.	0.032	0.027	0.014	0.284	0.237	0.269	0.394	0.237	0.164	0.117	0.026	0.182	0.076	0.295	0.066
五月 May	0.033	0.024	0.029	0.290	0.236	0.277	0.364	0.315	0.141	0.126	0.027	0.182	0.076	0.298	0.067
六月 June	0.028	0.027	0.025	0.287	0.215	0.279	0.367	0.300	0.122	0.133	0.026	0.188	0.075	0.304	0.066
七月 July	0.025	0.032	0.020	0.309	0.210	0.381	0.391	0.355	0.134	0.168	0.023	0.192	0.076	0.296	0.066
八月 Aug.	0.027	0.032	0.021	0.286	0.216	0.384	0.378	0.369	0.163	0.171	0.027	0.195	0.076	0.286	0.066
九月 Sep.	0.026	0.033		0.293	0.228	0.361	0.354	0.396	0.202	0.190	0.028	0.205	0.076	0.291	0.066
十月 Oct.	0.028	0.036	0.056	0.280	0.240	0.247	0.332	0.379	0.203	0.169	0.027	0.209	0.084	0.283	0.063
十一月 Nov.	0.032	0.046	0.038	0.298	0.237	0.260	0.331	0.369	0.204	0.145	0.029	0.205	0.084	0.296	0.067
十二月 Dec.	0.035	0.055	0.048	0.299	0.234	0.241	0.367	0.379	0.172	0.160	0.032	0.207	0.084	0.299	0.070

表二 上海市零售物價表（續） 民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	食物 FOOD														
	洋山芋 Sweet Potatoes	韭菜 Allium Odorum	菠菜 Spinach	鮮猪肉 Fresh Pork	鮮牛肉 Fresh Beef	鹹猪肉 Salted Pork	雞(活) Chicken	鮮鯽魚 Silver Carp	鮮魚 Fresh Fish	鹹白魚 Salted White Fish	鮮鴨蛋 Fresh Duck's Egg	豆油 Soy Bean Oil	醬油(雙套) Soy Bean Sauce	猪油 Lard	食鹽 Salt
貨品單位 Unit	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	斤 Chin	個 Piece	斤 Chin	斤 Chin	斤 Chin	斤 Chin
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
民國十九年 1930	**0.041**	**0.045**	**0.049**	**0.314**	**0.248**	**0.285**	**0.391**	**0 406**	**0.187**	**0.143**	**0 032**	**0 221**	**0.084**	**0.319**	**0.069**
一月 Jan.	0.047		0.071	0.288	0.236	0 260	0.382	0.411	0.198	0.163	0.036	0.214	0.084	0.3 5	0.071
二月 Feb.	0.047		0.068	0.297	0.248	0.246	0.381	0 359	0.205	0.145	0.037	0.226	0.084	0.306	0.068
三月 Mar.	0.049	0.070	0.037	0.300	0.259	0.235	0.384	0 369	0.229	0.145	0.033	0.221	0.085	0.305	0.068
四月 Apr.	0.045	0.028	0.022	0.286	0.267	0.237	0.384	0.342	0.194	0.154	0.028	0.218	0.083	0.286	0.069
五月 May	0.043	0.027	0.026	0.293	0.251	0.249	0.401	0.347	0.135	0.124	0.029	0.22	0.082	0.292	0.065
六月 June	0.031	0.033	0.027	0.324	0 251	0.263	0.421	0 429	0.136	0.136	0.030	0.228	0 084	0.329	0.067
七月 July	0.030	0.042		0.313	0.248	0.321	0.425	0.469	0.161	0.132	0.030	0.236	0.084	0.302	0.070
八月 Aug.	0.033	0.044		0.316	0.239	0.344	0.356	0.460	0.190	0.159	0.031	0.232	0.084	0.311	0.070
九月 Sep.	0.041	0.039	0.154	0.326	0.247	0.428	0.424	0.503	0.230	0.155	0 030	0.227	0 084	0.323	0.068
十月 Oct.	0.049	0.046	0.065	0.345	0.237	0.330	0.373	0.418	0.203	0.137	0 031	0.217	0.085	0.349	0.068
十一月 Nov.	0.039	0.047	0.051	0.338	0.244	0.276	0.381	0.409	0.203	0.131	0.031	0.207	0.084	0.350	0.068
十二月 Dec.	0.042	0.053	0.036	0.336	0.253	0.237	0.382	0.379	0.156	0.138	0.032	0.210	0.086	0.382	0.072
民國二十年 1931	**0.045**	**0.051**	**0.045**	**0.335**	**0.270**	**0 326**	**0 436**	**0.442**	**0 216**	**0.183**	**0 032**	**0.187**	**0.085**	**0.353**	**0.071**
一月 Jan.	0.049	0 057	0 036	0.332	0.264	0.2 18	0.390	0.424	0.194	0,147	0.031	0.205	0.086	0.384	0.070
二月 Feb	0.055	0.076	0.036	0.345	0.275	0.268	0 512	0.426	0.223	0.157	0.033	0.211	0.085	0.382	0.073
三月 Mar.	0.053	0.060	0.095	0.327	0.268	0.228	0.532	0.402	0.225	0.155	0.032	0.211	0.085	0.348	0.071
四月 Apr.	0.051	0.024	0.048	0.315	0.264	0.282	0.488	0.413	0.205	0.151	0.030	0.194	0.085	0 327	0.071
五月 May	0.047	0.023	0.034	0.316	0.255	0.308	0.454	0.425	0.162	0 140	0.029	0.185	0.085	0 330	0.068
六月 June	0.044	0.023	0.035	0.340	0 253	0.348	0.499	0.433	0.167	0.155	0.030	0.188	0.085	0.336	0.070
七月 July	0.033	0.048	0.035	0.348	0.253	0.410	0.422	0.495	0.173	0.149	0.029	0.184	0.085	0.340	0.070
八月 Aug.	0.034	0.069	0.035	0.345	0.259	0.447	0.387	0.563	0 283	0.187	0.032	0.189	0.085	0 343	0.069
九月 Sep.	0.035	0.053	0.035	0.327	0.261	0.453	0.418	0.561	0 313	0.231	0.035	0.184	0.085	0.331	0.071
十月 Oct.	0.040	0.061	0.069	0.341	0.292	0.323	0.399	0 482	0.238	0.248	0.030	0.168	0.086	0.345	0.071
十一月 Nov.	0.043	0.063	0.034	0.345	0.296	0.303	0.381	0.383	0.221	0.235	0.032	0.170	0.085	0.378	0.071
十二月 Dec.	0.052	0.063	0.045	0.340	0.298	0.295	0.355	0.292	0.191	0.237	0.032	0.156	0.085	0.395	0.072

表二　上海市零售物價表（續）民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	食物 FOOD	房租 RENT			衣着 CLOTHING										
	白糖（三五溫） White Sugar	樓房（石庫門）2 Story House with Court-yard	樓房（東洋式）2-Story House with no Court-yard	平房 One Story House	粗布（十三磅） Grey Sheet-ings	細布（十二磅） Grey Shirt-ings	條格布 Striped Cotton Shirt-ings	花標布 Printed Shirt-ings	漂布 White Shirt-ings	土布 Native Sheet-ings	線呢 Fancy Twills	絨布 Cotton Flannel	斜紋布 Jeans and Drills	棉花十 Raw Cotton	男綿襪（四十二支） Cotton Socks
貨品單位 Units*	斤 Chin	間 Chien†	間 Chien†	間 Chien†	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	斤 Chin	雙 Pair
民國十五年	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
1926	**0.082**	**2.776**	**1.969**	**1.972**	**0.085**	**0.108**	**0.060**	**0.102**	**0.124**	**0.040**	**0.158**	**0.106**	**0.104**	**0.545**	**0.280**
一月 Jan.	0.071	2.776	1.969	1.972	0.087	0.108	0.059	0.101	0.127	0.043	0.159	0.106	0.105	0.569	0.280
二月 Feb.	0.074	2.776	1.969	1.972	0.086	0.108	0.063	0.102	0.125	0.041	0.165	0.106	0.103	0.569	0.280
三月 Mar.	0.078	2.776	1.969	1.972	0.086	0.106	0.056	0.101	0.125	0.041	0.157	0.106	0.103		0.280
四月 Apr.	0.078	2.776	1.969	1.972	0.086	0.108	0.059	0.103	0.125	0.040	0.159		0.103		0.280
五月 May	0.081	2.776	1.969	1.972	0.087	0.106	0.064	0.103	0.125	0.040	0.162		0.105		0.280
六月 June	0.082	2.776	1.969	1.972	0.087	0.106	0.061	0.101	0.127	0.040	0.153		0.105		0.280
七月 July	0.079	2.776	1.969	1.972	0.084	0.106	0.059	0.100	0.124	0.040	0.153		0.103		0.280
八月 Aug.	0.081	2.776	1.969	1.972	0.083	0.106	0.061	0.101	0.124	0.040	0.153		0.105		0.280
九月 Sep.	0.086	2.776	1.969	1.972	0.083	0.110	0.059	0.103	0.122	0.039	0.157		0.106		0.280
十月 Oct.	0.089	2.776	1.969	1.972	0.084	0.108	0.057	0.106	0.121	0.039	0.153	0.106	0.104		0.280
十一月 Nov.	0.096	2.776	1.969	1.972	0.083	0.111	0.059	0.103	0.121	0.040	0.160	0.106	0.106	0.426	0.280
十二月 Dec.	0.092	2.776	1.969	1.972	0.083	0.111	0.059	0.101	0.124	0.039	0.164	0.106	0.108	0.426	0.280
民國十六年															
1927	**0.096**	**2.757**	**1.848**	**2.003**	**0.087**	**0.107**	**0.060**	**0.102**	**0.124**	**0.039**	**0.155**	**0.105**	**0.108**	**0.481**	**0.280**
一月 Jan.	0.094	2.757	1.848	2.003	0.084	0.110	0.059	0.103	0.121	0.040	0.164	0.104	0.105	0.474	0.280
二月 Feb.	0.094	2.757	1.848	2.003	0.083	0.111	0.059	0.103	0.124	0.039	0.158	0.106	0.108	0.465	0.280
三月 Mar.	0.094	2.757	1.848	2.003	0.086	0.108	0.059	0.103	0.125	0.038	0.159	0.105	0.106		0.280
四月 Apr.	0.095	2.757	1.848	2.003	0.084	0.108	0.061	0.105	0.123	0.038	0.157		0.106		0.280
五月 May	0.088	2.757	1.848	2.003	0.083	0.106	0.059	0.104	0.119	0.038	0.153		0.108		0.280
六月 June	0.088	2.757	1.848	2.003	0.083	0.106	0.059	0.100	0.121	0.038	0.153		0.108		0.280
七月 July	0.098	2.757	1.848	2.003	0.090	0.108	0.061	0.101	0.123	0.038	0.157		0.106		0.280
八月 Aug.	0.103	2.757	1.848	2.003	0.090	0.108	0.059	0.101	0.121	0.039	0.153		0.106		0.280
九月 Sep.	0.100	2.757	1.848	2.003	0.087	0.106	0.059	0.101	0.127	0.039	0.150		0.110		0.280
十月 Oct.	0.101	2.757	1.848	2.003	0.087	0.103	0.059	0.101	0.125	0.039	0.150	0.106	0.110		0.280
十一月 Nov.	0.098	2.757	1.848	2.003	0.094	0.105	0.063	0.101	0.127	0.039	0.150	0.106	0.111	0.529	0.280
十二月 Dec.	0.095	2.757	1.848	2.003	0.090	0.103	0.061	0.100	0.127	0.040	0.150	0.106	0.110	0.580	0.280

表二 上海市零售物價表（續） 民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931) —*Continued*

品名 Commodities	食物 FOOD	房租 RENT			衣著 CLOTHING										
	白糖（三五溫） White Sugar	樓房（石庫門） 2-Story House with Court-yard	樓房（東洋式） 2-Story House with no Court-yard	平房 One Story House	粗布（十三磅） Grey Sheetings	細布（十二磅） Grey Shirtings	條格布 Striped Cotton Shirtings	花標布 Printed Shirtings	漂布 White Shirtings	土布 Native Shirtings	線呢 Fancy Twills	絨布 Cotton Flannel	斜文布 Jeans and Drills	棉花 Raw Cotton	男線襪（四十二支） Cotton Socks
貨品單位 Unit	斤 Chin	間 Chien	間 Chien	間 Chien	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	尺 Ch'ih	斤 Chin	雙 Pair
民國十七年 1928	$ **0.088**	$ **2.837**	$ **1.878**	$ **2.052**	$ **0.092**	$ **0.105**	$ **0.060**	$ **0.094**	$ **0.131**	$ **0.040**	$ **0.154**	$ **0.109**	$ **0.108**	$ **0.559**	$ **0.280**
一月 Jan.	0.095	2.837	1.878	2.052	0.092	0.105	0.059	0.098	0.129	0.040	0.150	0.105	0.110	0.581	0.280
二月 Feb.	0.090	2.837	1.878	2.052	0.092	0.103	0.061	0.100	0.127	0.039	0.151	0.106	0.108	0.559	0.280
三月 Mar.	0.089	2.837	1.878	2.052	0.086	0.100	0.057	0.100	0.127	0.038	0.151	0.106	0.108		0.280
四月 Apr.	0.089	2.837	1.878	2.052	0.090	0.101	0.059	0.096	0.131	0.038	0.150		0.108		0.280
五月 May	0.091	2.837	1.878	2.052	0.092	0.103	0.059	0.094	0.129	0.038	0.148		0.106		0.280
六月 June	0.098	2.837	1.878	2.052	0.092	0.103	0.058	0.090	0.127	0.040	0.148		0.107		0.280
七月 July	0.081	2.837	1.878	2.052	0.092	0.106	0.060	0.092	0.131	0.040	0.150		0.106		0.280
八月 Aug.	0.095	2.837	1.878	2.052	0.094	0.105	0.059	0.092	0.131	0.040	0.153		0.108		0.280
九月 Sep.	0.090	2.837	1.878	2.052	0.092	0.108	0.056	0.094	0.133	0.040	0.157		0.110		0.280
十月 Oct.	0.080	2.837	1.878	2.052	0.094	0.108	0.061	0.092	0.134	0.040	0.162	0.114	0.108		0.280
十一月 Nov.	0.080	2.837	1.878	2.052	0.094	0.108	0.063	0.094	0.136	0.042	0.166	0.113	0.110	0.546	0.280
十二月 Dec.	0.080	2.837	1.878	2.052	0.094	0.111	0.062	0.091	0.134	0.042	0.164	0.112	0.110	0.546	0.280
民國十八年 1929	**0.095**	**2.918**	**1.963**	**2.119**	**0.093**	**0.109**	**0.067**	**0.091**	**0.139**	**0.045**	**0.170**	**0.110**	**0.107**	**0.524**	**0.350**
一月 Jan.	0.084	2.918	1.963	2.119	0.093	0.111	0.064	0.092	0.136	0.045	0.182	0.112	0.105	0.546	0.350
二月 Feb.	0.088	2.918	1.963	2.119	0.092	0.106	0.071	0.098	0.139	0.047	0.174	0.111	0.106	0.523	0.350
三月 Mar	0.098	2.918	1.963	2.119	0.095	0.111	0.074	0.098	0.157	0.045	0.181	0.111	0.111	0.512	0.350
四月 Apr.	0.097	2.918	1.963	2.119	0.095	0.110	0.066	0.095	0.143	0.043	0.180		0.108		0.350
五月 May	0.099	2.918	1.963	2.119	0.092	0.109	0.070	0.090	0.129	0.042	0.172		0.107		0.350
六月 June	0.099	2.918	1.963	2.119	0.092	0.113	0.072	0.092	0.142	0.046	0.169		0.109		0.350
七月 July	0.095	2.918	1.963	2.119	0.094	0.113	0.070	0.086	0.139	0.047	0.164		0.107		0.350
八月 Aug.	0.095	2.918	1.963	2.119	0.092	0.112	0.062	0.086	0.136	0.045	0.165		0.106		0.350
九月 Sep.	0.095	2.918	1.963	2.119	0.093	0.111	0.068	0.092	0.136	0.042	0.164		0.107		0.350
十月 Oct.	0.095	2.918	1.963	2.119	0.092	0.101	0.063	0.084	0.135	0.040	0.166		0.104		0.350
十一月 Nov.	0.095	2.918	1.963	2.119	0.094	0.105	0.059	0.092	0.139	0.049	0.164	0.106	0.106	0.580	0.350
十二月 Dec.	0.095	2.918	1.963	2.119	0.089	0.107	0.062	0.088	0.138	0.047	0.162	0.104	0.107	0.546	0.350

表二　上海市零售物價表（續）民國十五年一月至民國二十年十二月

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

品名 Commodities	FOOD 食物	房租 RENT			衣着 CLOTHING										
	白糖（三五溫） White Sugar	棟房（石庫門）2-Story House with Court-yard	棟房（東洋式）2-Story House with no Court-yard	平房 One Story House	粗布（十三磅）Grey Sheetings	細布（十二磅）Grey Shirtings	條格布 Striped Cotton Shirtings	花標布 Printed Shirtings	漂布 White Shirtings	土布 Native Sheetings	線呢 Fancy Twills	絨布 Cotton Flannel	斜文布 Jeans and Drills	棉花†† Raw Cotton	男線襪（四十二支）Cotton Socks
貨品單位 Unit	斤 Chin	間 Chie	間 Chien	間 Chien	尺 Ch'in	尺 Ch'in	尺 Ch'in	尺 Ch'in	尺 Ch'in	尺 Ch'in	尺 Ch'in	尺 Ch'in	尺 Ch'in	斤 Chin	雙 Pair
民國十九年 1930	**$ 0.099**	**$ 2.988**	**$ 2.070**	**$ 2.140**	**$ 0.092**	**$ 0.113**	**$ 0.067**	**$ 0.101**	**$ 0.140**	**$ 0.048**	**$ 0.166**	**$ 0.106**	**$ 0.110**	**$ 0.573**	**$ 0.350**
一月 Jan.	0.098	2.988	2.070	2.140	0.092	0.111	0.064	0.106	0.138	0.051	0.162	0.105	0.108	0.549	0.350
二月 Feb.	0.097	2.988	2.070	2.140	0.092	0.111	0.068	0.106	0.140	0.046	0.162	0.108	0.107	0.566	0.350
三月 Mar.	0.097	2.988	2.070	2.140	0.092	0.113	0.068	0.105	0.139	0.050	0.162	0.106	0.109	0.569	0.350
四月 Apr.	0.096	2.988	2.070	2.140	0.090	0.114	0.064	0.098	0.134	0.046	0.163		0.108		0.350
五月 May	0.094	2.988	2.070	2.140	0.090	0.105	0.068	0.100	0.137	0.042	0.157		0.104		0.350
六月 June	0.101	2.988	2.070	2.140	0.091	0.120	0.068	0.104	0.140	0.051	0.169		0.111		0.350
七月 July	0.104	2.988	2.070	2.140	0.091	0.115	0.070	0.101	0.143	0.051	0.170		0.111		0.350
八月 Aug.	0.098	2.988	2.070	2.140	0.092	0.114	0.070	0.098	0.140	0.047	0.159		0.111		0.350
九月 Sep.	0.099	2.988	2.070	2.140	0.092	0.115	0.062	0.099	0.139	0.049	0.164		0.111		0.350
十月 Oct.	0.099	2.988	2.070	2.140	0.092	0.114	0.064	0.100	0.143	0.043	0.173		0.113		0.350
十一月 Nov.	0.098	2.988	2.070	2.140	0.093	0.114	0.064	0.102	0.143	0.045	0.176	0.108	0.114	0.589	0.350
十二月 Dec.	0.104	2.988	2.070	2.140	0.092	0.111	0.069	0.098	0.145	0.052	0.173	0.106	0.113	0.616	0.350
民國二十年 1931	**0.136**	**3.186**	**2.215**	**2.290**	**0.100**	**0.119**	**0.072**	**0.124**	**0.167**	**0.057**	**0.194**	**0.146**	**0.122**	**0.622**	**0.420**
一月 Jan.	0.129	3.186	2.215	2.290	0.097	0.116	0.067	0.104	0.154	0.054	0.173	0.111	0.119	0.616	0.420
二月 Feb.	0.133	3.186	2.215	2.290	0.098	0.051	0.068	0.110	0.165	0.053	0.181	0.113	0.119	0.616	0.420
三月 Mar.	0.129	3.186	2.215	2.290	0.101	0.122	0.069	0.120	0.174	0.054	0.193	0.113	0.122	0.616	0.420
四月 Apr.	0.127	3.186	2.215	2.290	0.103	0.122	0.071	0.122	0.175	0.066	0.191	0.113	0.124	0.616	0.420
五月 May	0.128	3.186	2.215	2.290	0.105	0.124	0.072	0.116	0.175	0.059	0.195	0.113	0.124	0.616	0.420
六月 Jun.	0.139	3.186	2.215	2.290	0.100	0.105	0.073	0.105	0.163	0.061	0.186	0.113	0.122	0.616	0.420
七月 July	0.136	3.186	2.215	2.290	0.098	0.108	0.072	0.122	0.168	0.056	0.191	0.113	0.121	0.616	0.420
八月 Aug.	0.136	3.186	2.215	2.290	0.097	0.120	0.077	0.138	0.171	0.058	0.195	0.113	0.122	0.616	0.420
九月 Sep.	0.140	3.186	2.215	2.290	0.099	0.119	0.073	0.137	0.163	0.057	0.190	0.202	0.121	0.616	0.420
十月 Oct.	0.145	3.186	2.215	2.290	0.100	0.124	0.072	0.138	0.160	0.053	0.203	0.202	0.121	0.638	0.420
十一月 Nov.	0.145	3.186	2.215	2.290	0.103	0.127	0.073	0.137	0.167	0.052	0.210	0.211	0.127	0.638	0.420
十二月 Dec.	0.140	3.186	2.215	2.290	0.102	0.128	0.074	0.143	0.167	0.056	0.216	0.233	0.128	0.638	0.420

表二 上海市零售物價表 (民國十五年一月至民國二十年十二月) 續

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1931)—*Continued*

貨品名目 Commodities	燃料 FUEL AND LIGHT								雜項 MISCELLANEOUS						
	小子煤 Coal	煤油 Kerosene	劈柴 Firewood	廢木柴 Useless Timber	花莖柴 Bean Stalks	稻柴 Raw Straw	火柴 (鳳凰牌) Matches	炭 (溫州) Charcoal	肥皂 (固本) Soap	草紙 Toilet Paper	香烟 (金鼠牌) Cigarettes	黃酒 Shaosing	高粱 Kaoliang	茶葉 Tea	開水 Hot Water
貨品單位 Unit*	斤 Chin	斤 Chin	捆, 約5.6市斤 Bundle	斤 Chin	斤 Chin	斤 Chin	匣 Box	籮 Ba-ket	塊 Piece	刀 90 Sheets	盒 Box	斤 Chin	斤 Chin	斤 Chin	十杓 10 Ladle
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
民國十五年 1926	**0.014**	**0.061**	**0.046**	**0.009**	**0.0076**	**0.0039**	**0.0077**	**0.880**	**0.051**	**0.068**	**0.035**	**0.078**	**0.106**	**0.237**	**0.014**
一月 Jan.	0.015	0.062	0.046	0.009	0.0071	0.0041	0.0082	0.863	0.053	0.069	0.037	0.077	0.109	0.237	0.015
二三月 Feb.	0.015	0.058	0.043	0.009	0.0071	0.0041	0.0081	0.813	0.053	0.069	0.037	0.077	0.109	0.237	0.015
三四月 Mar.	0.015	0.056	0.046	0.009	0.0071	0.0037	0.0079	0.838	0.051	0.067	0.036	0.078	0.109	0.237	0.014
四月 Apr.	0.015	0.056	0.045	0.009	0.0071	0.0038	0.0077	0.900	0.050	0.070	0.035	0.078	0.109	0.237	0.014
五月 May	0.014	0.055	0.046	0.009	0.0071	0.0038	0.0077	0.875	0.050	0.070	0.035	0.078	0.109	0.237	0.014
六月 June	0.014	0.056	0.043	0.009	0.0071	0.0038	0.0077	0.838	0.050	0.070	0.035	0.081	0.105	0.237	0.014
七月 July	0.014	0.056	0.043	0.009	0.0078	0.0041	0.0077	0.882	0.050	0.069	0.034	0.081	0.105	0.237	0.014
八月 Aug.	0.014	0.066	0.044	0.009	0.0078	0.0041	0.0076	0.844	0.050	0.069	0.034	0.081	0.105	0.237	0.014
九月 Sep.	0.014	0.065	0.045	0.009	0.0078	0.0037	0.0073	0.913	0.051	0.066	0.033	0.079	0.105	0.237	0.013
十月 Oct.	0.014	0.066	0.047	0.009	0.0078	0.0037	0.0074	0.938	0.052	0.066	0.033	0.078	0.103	0.237	0.013
十一月 Nov.	0.014	0.066	0.059	0.009	0.0078	0.0037	0.0075	0.925	0.053	0.068	0.034	0.072	0.103	0.237	0.014
十二月 Dec.	0.014	0.066	0.055	0.009	0.0093	0.0041	0.0074	0.932	0.052	0.067	0.033	0.071	0.103	0.237	0.013
民國十六年 1927	**0.014**	**0.068**	**0.056**	**0.009**	**0.0081**	**0.0040**	**0.0072**	**0.944**	**0.050**	**0.075**	**0.036**	**0.078**	**0.116**	**0.237**	**0.014**
一月 Jan.	0.014	0.066	0.060	0.009	0.0085	0.0041	0.0076	0.950	0.049	0.068	0.034	0.078	0.103	0.237	0.014
二三月 Feb.	0.014	0.066	0.058	0.009	0.0085	0.0041	0.0073	0.950	0.051	0.073	0.033	0.077	0.120	0.237	0.013
三四月 Mar.	0.014	0.077	0.057	0.009	0.0078	0.0041	0.0073	0.975	0.051	0.076	0.033	0.077	0.120	0.237	0.013
四月 Apr.	0.014	0.077	0.054	0.009	0.0078	0.0038	0.0072	0.975	0.051	0.076	0.033	0.077	0.120	0.237	0.013
五月 May	0.014	0.077	0.054	0.009	0.0078	0.0038	0.0072	0.950	0.050	0.076	0.032	0.077	0.120	0.237	0.013
六月 June	0.014	0.069	0.053	0.009	0.0078	0.0038	0.0073	0.938	0.051	0.076	0.033	0.077	0.117	0.237	0.013
七月 July	0.014	0.069	0.055	0.009	0.0078	0.0043	0.0072	0.931	0.050	0.076	0.032	0.076	0.117	0.237	0.013
八月 Aug.	0.014	0.069	0.057	0.009	0.0085	0.0043	0.0072	0.925	0.050	0.075	0.032	0.076	0.117	0.237	0.013
九月 Sep.	0.014	0.069	0.057	0.009	0.0085	0.0043	0.0071	0.975	0.050	0.075	0.043	0.082	0.117	0.237	0.013
十月 Oct.	0.013	0.064	0.056	0.009	0.0078	0.0038	0.0071	0.975	0.050	0.078	0.043	0.082	0.114	0.237	0.013
十一月 Nov.	0.013	0.062	0.052	0.009	0.0078	0.0038	0.0071	0.913	0.050	0.078	0.043	0.078	0.114	0.237	0.018
十二月 Dec.	0.014	0.064	0.053	0.010	0.0085	0.0043	0.0073	0.875	0.051	0.076	0.044	0.078	0.114	0.237	0.018

表二 上海市零售物價表 (民國十五年一月至民國二十年十二月) 續

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926 – December 1931) —*Continued*

貨品名目 Commodities	燃料 FUEL AND LIGHT								雜項 MISCELLANEOUS						
	小子煤 Coal	煤油 Kerosene	劈柴 Firewood	廢木柴 Useless Timber	花箕柴 Bean Straw	稻柴 Raw Straw	火柴(鳳凰牌) Matches	炭(溫州) Charcoal	肥皂(固本) Soap	草紙 Toilet Paper	香烟(金鼠牌) Cigarettes	黃酒 Shaoshing	高粱 Kaoliang	茶葉 Tea	開水 Hot Water
貨品單位 Unit	斤 Chin	斤 Chin	捆,約3.6市斤 Bundle	斤 Chin	斤 Chin	斤 Chin	匣 Box	簍 Basket	塊 Piece	刀 90 Sheets	盒 Box	斤 Chin	斤 Chin	斤 Chin	十杓 10 Ladle
民國十七年 1928	$ **0.013**	$ **0.068**	$ **0.055**	$ **0.010**	$ **0.0081**	$ **0.0044**	$ **0.0070**	$ **0.894**	$ **0.049**	$ **0.075**	$ **0.042**	$ **0.080**	$ **0.117**	$ **0.284**	$ **0.017**
一月 Jan.	0.014	0.064	0.052	0.010	0.0085	0.0044	0.0077	0.850	0.054	0.073	0.046	0.078	0.112	0.284	0.019
二月 Feb.	0.014	0.064	0.051	0.010	0.0085	0.0041	0.0073	0.888	0.051	0.073	0.044	0.077	0.112	0.284	0.018
三月 Mar.	0.013	0.064	0.055	0.010	0.0078	0.0041	0.0071	0.950	0.049	0.078	0.042	0.078	0.113	0.284	0.018
四月 April	0.013	0.067	0.051	0.010	0.0078	0.0041	0.0070	0.875	0.049	0.077	0.042	0.077	0.113	0.284	0.017
五月 May	0.013	0.069	0.050	0.010	0.0078	0.0041	0.0070	0.869	0.048	0.077	0.041	0.081	0.118	0.284	0.017
六月 June	0.013	0.069	0.050	0.010	0.0078	0.0041	0.0068	0.900	0.047	0.077	0.041	0.081	0.118	0.284	0.017
七月 July	0.013	0.069	0.051	0.010	0.0085	0.0041	0.0067	0.863	0.047	0.074	0.040	0.083	0.118	0.284	0.017
八月 Aug.	0.013	0.069	0.053	0.010	0.0085	0.0044	0.0068	0.881	0.048	0.075	0.041	0.081	0.118	0.284	0.017
九月 Sep.	0.013	0.069	0.051	0.010	0.0078	0.0049	0.0068	0.900	0.048	0.076	0.041	0.088	0.121	0.284	0.017
十月 Oct.	0.013	0.069	0.066	0.010	0.0078	0.0043	0.0068	0.900	0.048	0.075	0.041	0.080	0.121	0.284	0.017
十一月 Nov.	0.013	0.069	0.067	0.010	0.0078	0.0046	0.0068	0.900	0.047	0.075	0.041	0.080	0.121	0.284	0.017
十二月 Dec.	0.013	0.069	0.065	0.010	0.0083	0.0051	0.0068	0.950	0.048	0.075	0.041	0.080	0.121	0.284	0.017
民國十八年 1929	**0.013**	**0.073**	**0.054**	**0.012**	**0.0084**	**0.0050**	**0.0070**	**0.958**	**0.051**	**0.070**	**0.045**	**0.082**	**0.122**	**0.284**	**0.017**
一月 Jan.	0.014	0.072	0.063	0.011	0.0077	0.0053	0.0069	0.982	0.050	0.076	0.046	0.077	0.119	0.284	0.018
二月 Feb.	0.013	0.073	0.052	0.011	0.0071	0.0041	0.0063	0.985	0.049	0.073	0.045	0.079	0.115	0.284	0.017
三月 Mar.	0.013	0.070	0.056	0.011	0.0074	0.0046	0.0067	1.000	0.050	0.072	0.047	0.085	0.115	0.284	0.017
四月 April	0.013	0.074	0.052	0.010	0.0102	0.0045	0.0067	0.963	0.051	0.071	0.047	0.084	0.122	0.284	0.017
五月 May	0.013	0.075	0.051	0.011	0.0084	0.0044	0.0066	0.930	0.050	0.066	0.044	0.084	0.123	0.284	0.017
六月 June	0.013	0.068	0.050	0.012	0.0080	0.0043	0.0066	0.913	0.049	0.068	0.044	0.080	0.134	0.284	0.017
七月 July	0.013	0.076	0.051	0.012	0.0090	0.0059	0.0066	0.933	0.050	0.067	0.044	0.079	0.118	0.284	0.017
八月 Aug.	0.013	0.075	0.053	0.012	0.0085	0.0054	0.0065	0.988	0.052	0.063	0.044	0.081	0.117	0.284	0.017
九月 Sep.	0.013	0.078	0.053	0.011	0.0092	0.0051	0.0066	0.925	0.051	0.070	0.044	0.082	0.118	0.284	0.017
十月 Oct.	0.013	0.071	0.053	0.011	0.0083	0.0056	0.0074	0.939	0.050	0.071	0.044	0.083	0.126	0.284	0.017
十一月 Nov.	0.014	0.074	0.053	0.012	0.0084	0.0053	0.0082	0.955	0.052	0.069	0.045	0.089	0.125	0.284	0.017
十二月 Dec.	0.014	0.074	0.057	0.014	0.0085	0.0049	0.0087	0.981	0.054	0.079	0.046	0.086	0.134	0.284	0.018

表二 上海市零售物價表（民國十五年一月至民國二十年十二月） 續

TABLE 2. RETAIL PRICES IN GREATER SHANGHAI (January 1926—December 1930) —*Continued*

貨品名目 Commodities	燃料 FUEL LIGHT								雜項 MISCELLANEOUS						
	小子煤 Coal	煤油 Kerosene	劈柴 Firewood	廢木柴 Useless Timber	花莢柴 Bean Stalks	稻柴 Raw Straw	火柴（鳳凰牌） Matches	炭（溫州） Charcoal	肥皂（固本） Soap	草紙 Toilet Paper	香烟（金鼠牌） Cigarettes	黃酒 Shaoshing	高粱 Kaoliang	茶葉 Tea	開水 Hot Water
貨品單位 Unit	斤 Chin	斤 Chin	棚3.6市斤 Bundle	斤 Chin	斤 Chin	斤 Chin	匣 Box	簍 Basket	塊 Piece	刀 90 Sheet	盒 Box	斤 Chin	斤 Chin	斤 Chin	十杓 10 Ladle
民國十九年 1930	$ **0.015**	$ **0.111**	$ **0.053**	$ **0.013**	$ **0.0089**	$ **0.0068**	$ **0.0090**	$ **0.981**	$ **0.058**	$ **0.078**	$ **0.048**	$ **0.090**	$ **0.132**	$ **0.296**	$ **0.018**
一月 Jan.	0.015	0.074	0.058	0.012	0.0107	0.0085	0.0091	0.982	0.054	0.080	0.047	0.089	0.124	0.284	0.018
二月 Feb.	0.015	0.077	0.052	0.012	0.0102	0.0078	0.0088	0.946	0.056	0.074	0.046	0.084	0.137	0.284	0.018
三月 Mar.	0.015	0.076	0.055	0.014	0.0085	0.0051	0.0089	1.046	0.057	0.075	0.046	0.086	0.135	0.284	0.018
四月 Apr.	0.015	0.074	0.059	0.012	0.0090	0.0068	0.0084	1.005	0.055	0.077	0.047	0.090	0.146	0.284	0.018
五月 May	0.015	0.099	0.052	0.014	0.0077	0.0053	0.0087	0.965	0.055	0.072	0.045	0.090	0.126	0.284	0.017
六月 June	0.014	0.122	0.051	0.013	0.0080	0.0066	0.0087	0.983	0.057	0.077	0.049	0.088	0.122	0.284	0.017
七月 July	0.015	0.130	0.050	0.014	0.0082	0.0058	0.0098	0.962	0.060	0.081	0.050	0.094	0.126	0.284	0.018
八月 Aug.	0.015	0.134	0.052	0.015	0.0082	0.0061	0.0085	0.946	0.060	0.081	0.049	0.090	0.131	0.284	0.018
九月 Sep.	0.015	0.124	0.050	0.010	0.0091	0.0051	0.0094	0.988	0.061	0.074	0.050	0.089	0.128	0.284	0.018
十月 Oct.	0.015	0.136	0.059	0.013	0.0090	0.0058	0.0089	0.977	0.060	0.076	0.050	0.090	0.146	0.332	0.018
十一月 Nov.	0.014	0.137	0.051	0.012	0.0091	0.0072	0.0090	1.000	0.060	0.087	0.050	0.093	0.127	0.332	0.018
十二月 Dec.	0.015	0.143	0.053	0.014	0.0086	0.0093	0.0093	0.971	0.062	0.081	0.052	0.091	0.131	0.332	0.019
民國二十年 1931	**0.017**	**0.154**	**0.057**	**0.013**	**0.0094**	**0.0063**	**0.013**	**0.990**	**0.065**	**0.083**	**0.056**	**0.090**	**0.133**	**0.332**	**0.019**
一月 Jan.	0.017	0.139	0.057	0.012	0.0102	0.0068	0.012	0.969	0.064	0.092	0.056	0.087	0.147	0.332	0.019
二月 Feb.	0.019	0.148	0.061	0.012	0.0085	0.0060	0.012	0.978	0.065	0.090	0.057	0.093	0.142	0.332	0.020
三月 Mar.	0.017	0.152	0.059	0.012	0.0094	0.0063	0.011	1.029	0.064	0.085	0.057	0.093	0.136	0.332	0.019
四月 Apr.	0.018	0.160	0.054	0.014	0.0091	0.0051	0.012	0.957	0.064	0.083	0.056	0.093	0.136	0.332	0.019
五月 May	0.017	0.166	0.053	0.012	0.0088	0.0048	0.013	1.005	0.064	0.083	0.055	0.095	0.136	0.332	0.018
六月 June	0.018	0.163	0.054	0.013	0.0085	0.0049	0.013	0.982	0.065	0.083	0.055	0.092	0.136	0.332	0.018
七月 July	0.017	0.162	0.057	0.013	0.0088	0.0045	0.013	0.988	0.065	0.082	0.055	0.088	0.136	0.332	0.018
八月 Aug.	0.017	0.157	0.056	0.014	0.0098	0.0072	0.013	0.968	0.066	0.079	0.055	0.086	0.127	0.332	0.018
九月 Sep.	0.016	0.159	0.053	0.014	0.0092	0.0079	0.013	0.991	0.067	0.077	0.056	0.089	0.124	0.332	0.019
十月 Oct.	0.016	0.151	0.060	0.014	0.0101	0.0084	0.013	1.010	0.066	0.080	0.055	0.088	0.124	0.332	0.018
十一月 Nov.	0.016	0.149	0.057	0.015	0.0112	0.0080	0.014	1.012	0.065	0.080	0.055	0.089	0.133	0.332	0.018
十二月 Dec.	0.016	0.146	0.055	0.015	0.0095	0.0068	0.014	0.995	0.066	0.078	0.055	0.081	0.124	0.332	0.019

* 本表貨品單位係用市制，其與舊制之換算率爲：

1市尺=0.9375海尺（裁尺）　1市升=0.8453升（海斛）　1市斤=0.8525漕平（天平）

The units of weights and measures are in terms of the market system, the identification of which with the old system is follows:

1 Shih Ch'ih=0.9375 Hai Ch'ih.

1 Shih Shih=0.8453 Shih (Hai He)

1 Shih Chin=0.8525 Chao Ping.

† 指標準間，每間等於32立方公尺.

By "chien" we mean a room of the standard dimension of 32 cubic feet.

†† 凡以時令關係，某種貨物無年價之月份，仍用上月價格，以求全年平均價格.

Where quotations are not available in certain months of the year due to the seasonal character of the commodities concern ed the quotations of the previous month are taken in computing the yearly averages.

表三(甲) 上海市銀元每元兌換銅元行市表 (銅元數)

TABLE 3. EXCHANGE RATES OF COPPER COINS TO A DOLLAR (number of coppers)

民國十五年一月至民國二十年十二月

(January 1926—December 1931)

	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sep.	十月 Oct.	十一月 Nov.	十二月 Dec.	平均 Average
民國十五年 1926	245.25	245.75	253.60	258.75	261.00	261.00	261.50	262.50	272 60	271.50	265.25	269.40	260.68
民國十六年 1927	264.00	273.00	275.80	277.00	278.00	275.40	278.25	279.60	280 00	281.75	281.40	275.75	276.66
民國十七年 1928	261.00	273.80	283.50	286.75	290.20	295.50	296.00	293.40	292.00	294.00	295.50	292.25	287.83
民國十八年 1929	278.00	286.00	297.00	297.00	297.00	298.00	298.00	298.21	298.65	297.38	290.29	279.24	292.90
民國十九年 1930	272.96	284.89	281.41	281.89	289.24	288.82	281.43	283.38	281.68	281.70	279.25	267.43	281.17
民國二十年 1931	262 84	253.54	265.47	267.60	274 77	274.50	273.77	272.70	268.90	272.25	274.18	270.49	269.25

表三(乙) 上海市銀元每元兌換銅元行市表 (百分數)

TABLE 3. EXCHANGE RATES OF COPPER COINS TO A DOLLAR (percentages)

民國十五年一月至民國二十年十二月

(January 1926—December 1931)

民國十五年全年平均=100 Average of 1926=100

	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sep.	十月 Oct.	十一月 Nov.	十二月 Dec.	平均 Average
民國十五年 1926	94.1	94.3	97.3	99.3	100.1	100.1	100.3	100.7	104.6	104.2	101.8	103.4	100.0
民國十六年 1927	101.3	104.7	105.8	106.3	106.7	105.7	106.7	107.3	107 4	108 1	102.0	105.8	106.1
民國十七年 1928	100.1	105.0	108.8	110.0	111.3	113.4	113.6	112.6	112.0	112.8	113.4	112.1	110.4
民國十八年 1929	106.7	109.7	113.9	113.9	111.9	114.3	114.3	114.4	114.6	114.1	111 4	107.1	112.4
民國十九年 1930	104.7	109.3	108.0	108.1	111.0	110.8	108.0	108.7	108.1	108.1	107.1	102.6	107.9
民國二十年 1931	100.8	97.3	101.8	102.7	105.4	105.3	105.0	104 6	103.2	104.4	105.2	103.8	103.3

附　錄
APPENDIX

國內重要都市生活費指數和零售物價指數表
INDEX NUMBERS OF COST OF LIVING AND OF RETAIL PRICES IN OTHER CITIES

一　上海紗廠工人生活費指數
1. Cost-of-Living Index Numbers of Shanghai Cotton Mill Workers

編製機關: 國定稅則委員會

Computing Agency: *National Tariff Commission, Shanghai.*

採取物品: 四十三(內食物24,衣着8,房租1,燃料4,雜項6)

Commodities Included: *43 (Food, 24; Clothing, 8; Rent, 1; Fuel and Light; 4; Miscellaneous, 6)*

計算公式: 加權算術平均法

Formula Used: *Weighted Arithmetic Average (Weighted by Arbitrary Constants)*

價格基期: 民國十五年

Base Period: *1926*

根據刊物: 盛俊編,上海生活費指數.國定稅則委員會出版. 上海物價月報國定稅則委員會編

Sources of Information: *"The Cost of Living Index Numbers in Shanghai," and "Prices & Price Indexes in Shanghai," National Tariff Commission, Shanghai.*

時期 Period	食物 Food	衣着 Clothing	房租 Rent	燃料 Fuel and Light	雜項 Miscellaneous	總指數 General Index
民國十五年 1926	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
一月 Jan.	89.0	101.8	99.6	101.4	98.3	93.7
二月 Feb.	93.0	101.8	99.7	89.2	101.0	95.6
三月 Mar.	94.1	100.5	99.8	98.1	100.5	96.7
四月 Apr.	96.4	100.8	99.8	101.1	101.1	98.4
五月 May.	93.6	100.5	99.8	95.7	100.8	96.3
六月 June	95.7	101.1	99.8	88.6	103.1	97.4
七月 July	101.3	99.4	99.9	89.0	101.2	100.1
八月 Aug.	102.7	99.4	100.3	92.2	102.4	101.4
九月 Sep.	110.0	99.4	100.3	95.0	101.7	105.6
十月 Oct.	115.1	99.4	100.3	104.2	103.1	109.4
十一月 Nov.	103.0	98.1	100.3	115.9	97.1	102.1
十二月 Dec.	99.2	97.8	100.3	133.2	97.2	101.3
民國十六年 1927	**106.7**	**96.8**	**100.8**	**131.4**	**104.4**	**106.7**
一月 Jan.	109.8	96.9	100.2	144.6	97.4	108.0
二月 Feb.	126.0	96.7	100.5	139.4	95.4	116.3
三月 Mar.	120.3	96.7	100.5	138.5	95.3	113.0
四月 Apr.	111.2	96.7	100.5	126.5	95.6	107.1
五月 May.	101.2	96.6	100.5	127.1	96.5	101.7
六月 June	98.2	95.2	100.9	127.5	96.2	99.9
七月 July	110.7	97.6	100.9	126.5	96.1	107.1
八月 Aug.	114.3	97.6	101.1	135.7	99.4	110.4
九月 Sep.	111.0	95.9	101.1	134.6	122.8	113.2
十月 Oct.	97.9	96.9	101.1	129.1	109.7	102.8
十一月 Nov.	89.9	98.4	101.1	116.4	123.7	100.4
十二月 Dec.	87.7	96.7	101.1	121.6	127.6	100.2

一 上海紗廠工人生活費指數 (續)

1. Cost-of-Living Index Numbers of Shanghai Cotton Mill Workers —*Continued*

時期 Period	食物 Food	衣着 Clothing	房租 Rent	燃料 Fuel and Light	雜項 Miscellaneous	總指數 General Index
民國十七年 1928	**92.1**	**95.1**	**101.1**	**114.6**	**130.0**	**102.5**
一月 Jan.	90.8	97.8	101.0	114.6	133.7	102.8
二月 Feb.	96.3	97.5	101.0	110.5	131.3	105.0
三月 Mar.	92.6	94.6	101.0	124.9	129.2	103.3
四月 Apr.	89.5	94.9	101.0	109.1	129.0	100.4
五月 May	88.4	95.4	101.0	105.4	121.8	98.0
六月 June	87.8	94.1	101.0	107.1	124.1	98.2
七月 July	93.2	94.1	101.0	108.8	126.2	101.8
八月 Aug.	90.1	94.1	101.3	113.6	126.6	100.5
九月 Sep.	94.1	94.2	101.3	109.0	133.5	103.8
十月 Oct.	98.9	95.6	101.3	128.5	133.0	108.0
十一月 Nov.	90.8	95.1	101.3	124.9	133.7	103.3
十二月 Dec.	91.5	95.2	101.3	120.7	131.7	102.9
民國十八年 1929	**98.4**	**97.7**	**102.1**	**118.2**	**136.4**	**107.9**
一月 Jan.	92.5	95.2	101.4	122.5	134.3	104.2
二月 Feb.	93.5	97.0	101.8	112.6	137.0	104.8
三月 Mar.	91.5	97.8	101.8	118.0	134.7	103.7
四月 Apr.	89.1	97.8	101.8	114.6	137.6	102.7
五月 May	89.6	98.0	101.8	119.9	139.0	103.6
六月 June	93.5	97.0	102.2	123.8	135.8	105.4
七月 July	94.8	97.0	102.2	120.3	135.8	105.9
八月 Aug.	105.2	97.7	102.2	120.1	135.8	111.7
九月 Sep.	109.5	98.4	102.2	120.1	135.1	114.1
十月 Oct.	110.3	98.7	102.4	126.8	132.9	114.6
十一月 Nov.	106.4	98.7	102.4	114.6	134.7	111.9
十二月 Dec.	104.5	98.8	102.4	120.2	136.0	111.5
民國十九年 1930	**118.1**	**99.8**	**104.4**	**122.4**	**144.7**	**121.4**
一月 Jan.	106.0	99.3	103.9	121.6	141.4	113.6
二月 Feb.	126.8	99.6	103.9	125.3	133.7	124.1
三月 Mar.	122.0	99.3	104.4	120.9	139.4	122.2
四月 Apr.	120.0	99.6	104.4	115.9	139.6	120.8
五月 May	119.9	99.3	104.5	117.9	138.9	120.7
六月 June	119.2	99.1	104.5	120.5	137.2	120.2
七月 July	130.0	100.9	104.5	127.0	149.9	129.5
八月 Aug.	125.5	100.7	104.5	122.6	151.0	126.9
九月 Sep.	127.1	100.2	104.5	127.2	151.0	128.1
十月 Oct.	115.4	100.8	104.5	123.6	151.2	121.3
十一月 Nov.	104.0	99.5	104.5	126.3	152.7	115.3
十二月 Dec.	100.8	99.0	104.5	119.6	150.8	113.8
民國二十年 1931	**107.5**	**108.3**	**106.0**	**133.6**	**187.4**	**125.9**
一月 Jan.	104.9	104.6	104.5	129.2	173.9	120.9
二月 Feb.	122.0	109.3	104.5	144.2	193.0	136.0
三月 Mar.	117.4	105.4	105.6	142.6	189.5	132.2
四月 Apr.	98.7	107.7	105.6	132.7	189.5	121.3
五月 May	98.7	108.2	105.6	125.0	187.7	120.3
六月 June	99.6	110.2	105.6	128.3	186.4	121.0
七月 July	96.4	110.8	105.6	128.4	185.9	119.2
八月 Aug.	116.5	109.0	105.6	129.5	188.5	130.9
九月 Sep.	124.4	104.9	107.3	126.9	190.6	135.3
十月 Oct.	110.0	108.6	107.3	128.3	188.7	127.3
十一月 Nov.	103.2	113.5	107.3	141.6	189.8	125.2
十二月 Dec.	97.0	108.8	107.3	140.8	189.9	121.2

二　天津工人生活費指數

2. Cost-of-Living Index Numbers of Laborers in Tientsin

編製機關：天津南開大學經濟學院

Computing Agency: *Institute of Economics, Nankai University, Tientsin*

採取物品：四十(內食物 24, 服用品 8, 房租 2, 燃料 4, 雜項 2)

Commodities Included: *40 (Food, 24; Clothing, 8; Rent, 2; Fuel & Light, 4; Miscellaneous, 2)*

計算公式：加權總合法(以 132 工人家庭平均消費數量爲權數)

Formula Used: *Weighted Aggregative*

價格基期：民國十五年

Base Period: *1926*

根據刊物："編製天津工人生活費指數說明書," 載十九年六月二十九日 天津 大公報經濟研究週刊第十八期, 天津南開大學社會經濟研究委員會編。
"天津工人生活程度及其四年來生活費之變遷," 載十九年七月六日 天津 大公報 經濟研究週刊 第十九期, 天津 南開大學社會經濟研究委員會編。
南開統計週報 天津 南開大學經濟學院編。

Sources of Information: *"Nankai Weekly Statistical Service," Institute of Economics, Nankai University, Tientsin.*

時期 Period	食物 Food	服用品 Clothing	燃料 Fuel and Light	房租 Rent	雜項 Miscellaneous	總指數 General Index
民國十五年 1926	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
一月 January	98.25	97.40	107.28	96.61	97.72	98.57
二月 February	96.13	97.40	105.54	98.52	96.98	96.57
三月 March	94.12	98.41	103.82	98.52	91.10	94.65
四月 April	94.72	97.92	103.82	98.52	91.10	95.20
五月 May	97.77	99.54	97.82	98.52	91.10	97.80
六月 June	96.57	99.30	98.22	100.04	91.10	96.72
七月 July	97.24	101.88	96.48	101.23	105.80	97.37
八月 August	97.69	101.92	96.48	101.23	105.80	97.79
九月 September	99.46	103.48	97.33	101.23	105.80	99.48
十月 October	109.77	101.73	95.59	101.23	105.07	108.90
十一月 November	106.23	101.88	35.68	101.23	105.07	105.65
十二月 December	106.75	100.10	97.66	103.14	115.32	106.23
民國十六年 1927	**108.95**	**101.63**	**102.20**	**110.46**	**119.24**	**108.59**
一月 January	110.14	97.43	101.16	108.14	118.99	109.53
二月 February	104.91	97.43	103.28	108.14	118.26	104.79
三月 March	102.54	101.81	96.88	110.39	112.38	102.43
四月 April	103.02	102.74	98.37	110.39	112.38	102.95
五月 May	104.40	102.73	100.14	110.39	112.38	104.29
六月 June	102.68	104.44	100.14	110.39	112.38	102.74
七月 July	103.55	104.47	103.24	111.28	112.38	103.68
八月 August	105.15	104.47	103.24	111.28	112.38	105.16
九月 September	107.92	101.32	101.94	111.28	112.38	107.61
十月 October	120.25	100.88	102.67	111.28	119.73	119.04
十一月 November	118.25	100.87	110.74	111.28	139.57	117.59
十二月 December	124.63	100.91	104.63	111.28	147.66	123.26

二 天津工人生活費指數 (續)

2. Cost-of-Living Index Numbers of Laborers in Tientsin —*Continued*

時期 Period	食物 Food	服用品 Clothing	燃料 Fuel and Light	房租 Rent	雜項 Miscellaneous	總指數 General Index
民國十七年 1928	**113.37**	**117.97**	**106.44**	**120.19**	**123.53**	**113.29**
一月 January	123.24	119.04	107.12	121.50	123.40	122.54
二月 February	123.08	119.00	106.62	121.50	133.40	122.37
三月 March	122.03	114.17	100.68	121.50	122.67	121.00
四月 April	119.80	116.23	101.55	121.50	124.14	119.02
五月 May	118.97	116.97	100.48	121.50	122.67	118.58
六月 June	112.62	117.55	104.65	119.25	122.67	112.49
七月 July	109.00	118.19	103.53	119.25	118.26	109.10
八月 August	107.43	118.19	102.39	119.25	117.52	107.60
九月 September	106.51	121.93	110.85	119.25	138.84	107.23
十月 October	107.66	117.83	107.19	119.25	122.67	108.03
十一月 November	105.49	120.22	109.42	119.25	122-67	106.14
十二月 December	109.55	116.34	122.80	119.25	123.40	110.39
民國十八年 1929	**115.83**	**118.08**	**124.46**	**119.18**	**114.11**	**116.28**
一月 January	118.63	120.01	122.44	115.61	129.28	118.80
二月 February	122.31	120.62	125.57	119.47	121.20	122 38
三月 March	120.64	120.76	124.60	120.37	121.93	120.81
四月 April	118.66	121.00	130.67	120.36	121.93	119.23
五月 May	108.39	120.62	126.75	120.36	110.95	109.55
六月 June	107.55	116.89	126.77	118.70	110.21	108.68
七月 July	105.43	115.52	121.06	118.70	107.27	106.46
八月 August	110.72	116.46	122.78	118.70	108.01	111.43
九月 September	121.58	116.46	129.25	118.70	112.38	121.75
十月 October	118.95	116.71	125.68	119.47	112.38	119.18
十一月 November	118.35	116.09	120.14	120.19	107.27	118.39
十二月 December	118.78	115.76	117.79	119.55	106.54	118.66
民國十九年 1930	**118.31**	**109.35**	**138.29**	**118.95**	**139.11**	**121.50**
一月 January	119.25	101.62	118.74	123.41	142.51	119.03
二月 February	119.37	98.54	118.68	123.58	135.90	119.08
三月 March	118.40	97.29	119.56	118.41	132.22	118.11
四月 April	120.73	97.56	125.45	118.41	132.96	120.52
五月 May	117.06	108.53	133.20	115.52	129.28	118.14
六月 June	116.25	112.41	144.04	115.69	128.70	117.39
七月 July	115.98	116.18	147.85	117.01	131.31	117.37
八月 August	118.98	115.40	163.38	117.01	137.22	120.80
九月 September	125.25	115.67	163.09	119.85	150.78	126.64
十月 October	121.21	116.14	150.86	118.87	153.87	122.47
十一月 November	115.29	116.31	136.80	120.44	146.75	116.43
十二月 December	111.26	116.54	137.83	119.17	147.81	112.64
民國二十年 1931	**108.48**	**126.24**	**138.59**	**115.06**	**144.36**	**110.35**
一月 January	111.69	116.81	140.84	119.34	148.38	113.18
二月 February	116.81	118.30	148.78	120.53	149.13	118.28
三月 March	114.60	128.81	136.99	120.43	144.28	116.85
四月 April	115.23	126.23	140.86	117.55	143.43	116.58
五月 May	109.52	129.13	143.53	116.84	143.40	111.50
六月 June	109.70	128.18	142.24	112.68	143.62	111.53
七月 July	104.23	126.72	136.68	112.68	143.25	106.66
八月 August	104.33	128.93	135.29	112.17	143.25	106.31
九月 September	107.79	129.52	140.67	112.17	143.80	109.86
十月 October	104.43	128.83	134.41	112.17	143.25	106.36
十一月 November	101.24	126.68	132.18	112.17	143.25	103.25
十二月 December	102.14	126.73	130.64	112.17	143.25	103.79

三　北平工人生活費指數

3. Cost-of-Living Index Numbers of Laborers in Peiping

編製機關：北平社會調查所

Computing Agency: *Social Research Department, Peiping*

採取物品：三十八（內食物 23, 衣着 7, 房租 1, 燃料 4, 雜項 3.）

Commodities Included: *38 (Food, 23; Clothing, 7; Rent, 1; Fuel & Light, 4; Miscellaneous, 3).*

計算公式：加權總合法（以 48 工人家庭平均消費數量爲權數）

Formula Used: *Weighted Aggregative*

價格基期：民國十六年

Base Period: *1927*

根據刊物：“An Index of the Cost of Living in Peiping”, by Simon Yang, Social Research Department, China Foundation, Peiping, 1928.
北平生活費指數月報，
北平社會調查所編

Sources of Information: *“An Index of the Cost of Living in Peiping,” Social Research Department, China Foundation, Peiping.*

時期 Period	食物 Food	衣着 Clothing	房租 Rent	燃料 Fuel and Light	雜項 Miscellaneous	總指數 General Index
民國十五年						
1926	**103.7**	**95.3**	**100.0**	**98.2**	**96.3**	**102.0**
一　月 January	103.6	93.7	100.0	106.0	97.1	102.5
二　月 February	104.5	93.7	100.0	106.7	97.2	103.2
三　月 March	102.4	94.3	100.0	100.0	95.7	101.2
四　月 April	111.7	94.9	100.0	96.0	95.3	107.6
五　月 May	117.8	94.9	100.0	98.2	96.2	112.1
六　月 June	108.6	94.9	100.0	95.6	95.6	105.2
七　月 July	101.1	94.9	100.0	96.2	96.1	99.9
八　月 August	98.3	94.9	100.0	94.7	95.8	97.8
九　月 September	97.9	94.9	100.0	94.2	96.8	97.5
十　月 October	98.8	97.3	100.0	93.6	96.6	98.3
十一月 November	100.5	97.4	100.0	99.1	96.6	100.0
十二月 December	98.6	97.4	100.0	98.2	96.5	98.6
民國十六年						
1927	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
一　月 January	97.4	97.6	100.0	95.3	97.2	97.5
二　月 February	99.0	97.6	100.0	95.0	98.0	98.6
三　月 March	99.5	99.1	100.0	94.9	98.9	99.1
四　月 April	101.6	100.6	100.0	95.3	98.8	100.8
五　月 May	99.9	100.6	100.0	95.9	99.4	99.6
六　月 June	99.8	100.6	100.0	97.2	99.8	99.7
七　月 July	99.5	100.6	100.0	98.7	100.1	99.6
八　月 August	99.2	100.6	100.0	99.6	100.0	99.5
九　月 September	99.0	100.6	100.0	101.2	100.8	99.4
十　月 October	104.2	100.6	100.0	108.2	102.7	103.8
十一月 November	102.5	100.6	100.0	109.7	102.3	102.8
十二月 December	98.4	100.6	100.0	109.2	102.2	99.8

三 北平工人生活費指數 (續)

3. Cost-of-Living Index Numbers of Laborers in Peiping—*Continued*

時期 Period	食物 Food	衣着 Clothing	房租 Rent	燃料 Fuel and Light	雜項 Miscellaneous	總指數 General Index
民國十七年 1928	**101.5**	**105.3**	**91.3**	**109.4**	**104.7**	**101.6**
一月 January	96.6	101.0	98.9	109.6	104.4	98.5
二月 February	96.5	101.3	98.9	107.9	103.8	98.2
三月 March	98.0	101.3	98.1	108.0	104.6	99.3
四月 April	101.2	101.3	93.4	108.3	104.8	101.1
五月 May	100.4	101.3	93.4	108.3	104.9	100.6
六月 June	104.9	104.4	93.4	111.3	105.6	104.4
七月 July	107.7	103.2	88.2	113.5	105.7	106.0
八月 August	107.5	104.5	88.2	111.6	105.2	105.7
九月 September	103.1	108.4	86.8	108.4	105.1	102.5
十月 October	101.1	113.8	85.6	109.2	104.7	101.6
十一月 November	98.9	109.3	85.6	105.4	103.1	99.2
十二月 December	102.4	113.2	85.6	111.2	104.9	102.6
民國十八年 1929	**107.6**	**114.5**	**82.6**	**114.3**	**111.1**	**106.5**
一月 January	102.2	113.7	84.1	110.7	105.4	102.3
二月 February	106.7	113.1	84.1	114.0	105.9	105.8
三月 March	107.1	115.2	84.1	116.2	106.0	106.4
四月 April	107.5	115.3	83.6	116.5	105.8	106.7
五月 May	103.0	117.0	80.9	115.1	114.1	103.4
六月 June	101.6	116.5	80.9	115.3	114.1	102.4
七月 July	103.9	115.7	80.9	114.1	113.9	103.9
八月 August	110.4	115.7	80.9	114.2	114.3	108.5
九月 September	112.3	114.5	83.1	113.9	113.9	109.9
十月 October	116.8	113.2	83.1	112.7	113.6	112.8
十一月 November	111.0	112.2	83.1	113.7	113.4	108.7
十二月 December	109.3	111.6	83.1	114.9	113.4	107.5
民國十九年 1930	**111.8**	**113.1**	**82.7**	**116.7**	**114.0**	**109.6**
一月 January	110.0	111.4	83.1	115.1	113.6	108.0
二月 February	112.0	111.4	83.1	114.3	113.7	109.4
三月 March	115.7	112.2	83.1	111.7	113.5	112.0
四月 April	117.8	113.2	83.1	108.3	113.4	113.2
五月 May	114.8	113.2	83.1	115.1	113.5	111.6
六月 June	113.6	113.1	83.1	115.5	113.6	110.9
七月 July	117.4	113.4	82.3	117.1	113.8	113.9
八月 August	116.0	113.8	82.3	116.9	114.2	112.6
九月 September	113.3	113.5	82.3	122.3	114.7	111.2
十月 October	113.4	113.9	82.3	126.4	115.5	111.7
十一月 November	102.0	114.1	82.3	119.7	115.1	103.0
十二月 December	95.7	114.2	82.3	117.5	113.6	98.3
民國二十年 1931	**92.5**	**114.4**	**83.9**	**113.1**	**115.8**	**95.8**
一月 January	92.7	114.0	82.3	116.9	115.9	96.1
二月 February	95.4	113.5	82.3	121.3	116.0	98.4
三月 March	96.4	113.5	82.3	116.4	115.6	98.7
四月 April	97.5	114.7	82.3	109.5	115.4	98.9
五月 May	91.8	114.2	82.3	108.4	115.1	94.7
六月 June	93.4	114.2	82.3	111.4	116.2	96.1
七月 July	90.4	114.2	82.3	111.1	116.0	93.9
八月 August	89.6	113.5	86.0	111.6	115.9	93.8
九月 September	94.9	114.8	86.0	114.4	116.6	97.4
十月 October	94.8	115.1	86.0	112.9	116.4	97.8
十一月 November	87.2	115.4	86.0	112.3	115.9	92.2
十二月 December	85.9	115.8	86.0	111.3	115.8	91.2

四 南京零售物價指數[1]

4. Index Numbers of Retail Prices in Nanking

編製機關: 南京市社會局[2]

採取物品: 九十三(內食物57,衣着12,燃料14,雜項10)

計算公式: 簡單幾何平均法

價格基期: 民國十五年

根據刊物: 物價統計月刊,實業部 統計科編

Computing Agency: *Bureau of Social Affairs, Nanking*

Commodities Included: *93 (Food, 57; Clothing, 12; Fuel and Light, 14; Miscellaneous, 10)*

Formula Used: Simple *Geometric Mean*

Base Period: *1926*

Sources of Information: *"Monthly Price Statistics," Ministry of Industries, Nanking*

時期 Period	食物 Food						衣着 Clothing	燃料 Fuel and Light	雜項 Miscellaneous	總指數 General Index
	米麵 Cereals	蔬菜 Vegetables	肉 Meats	菓品 Fruits	其他 Others	平均 Average				
民國十五年 1926										
一月 Jan.	94.1	79.1	95.2	84.7	94.7	90.1	92.6	85.6	96.3	90.2
二月 Feb.	102.7	92.4	104.9	88.8	98.9	98.3	95.3	89.4	96.9	99.7
三月 Mar.	106.9	90.1	106.8	92.5	97.6	98.9	95.8	90.1	94.3	97.2
四月 Apr.	105.3	78.3	104.8	79.9	97.6	94.4	94.4	91.3	93.2	93.9
五月 May	100.2	91.2	102.7	88.8	95.9	96.5	94.4	98.9	93.2	96.3
六月 June	94.1	112.9	108.1	112.0	95.0	101.6	89.4	101.9	101.8	100.2
七月 July	95.9	80.3	115.7	81.9	93.7	93.5	92.5	107.0	99.9	95.2
八月 Aug.	94.2	115.1	102.0	98.7	93.1	99.0	94.5	103.7	98.1	98.9
九月 Sep.	99.2	102.0	99.2	103.8	101.0	100.7	106.2	103.7	107.6	102.1
十月 Oct.	99.9	104.7	84.4	114.4	107.2	100.9	116.4	109.6	103.9	103.4
十一月 Nov.	99.8	91.0	80.7	110.8	108.0	96.7	111.0	109.1	106.3	99.9
十二月 Dec.	101.1	95.0	88.2	100.9	110.7	99.1	107.2	110.9	105.3	101.6
民國十六年 1927										
一月 Jan.	103.4	126.2	100.1	104.9	113.8	109.7	107.2	117.2	106.6	110.1
二月 Feb.	102.1	159.1	91.3	101.2	111.6	111.8	106.6	121.0	104.7	111.7
三月 Mar.	115.3	139.1	99.0	100.9	119.5	115.7	107.7	118.3	103.1	114.3
四月 Apr.	109.4	110.6	104.2	119.9	141.6	117.1	110.0	135.4	113.8	118.0
五月 May	111.8	83.1	97.8	119.8	152.2	108.8	108.9	143.2	121.4	113.0
六月 June	105.1	82.2	102.9	128.5	121.4	106.5	101.8	146.8	114.1	111.1
七月 July	105.8	114.9	127.2	150.3	123.1	120.7	112.0	181.8	125.8	126.2
八月 Aug.	111.7	155.3	131.2	147.7	130.6	129.6	119.4	182.0	135.4	134.4
九月 Sep.	107.2	158.0	116.9	137.7	137.7	129.7	119.4	185.0	135.7	135.2
十月 Oct.	96.7	130.8	102.0	132.5	140.2	119.0	119.7	163.1	136.7	125.6
十一月 Nov.	94.1	97.8	94.6	123.9	141.5	108.0	119.2	135.7	133.8	114.5
十二月 Dec.	91.7	101.7	108.0	111.6	136.2	108.6	118.1	128.7	134.2	114.0
民國十七年 1928										
一月 Jan.	90.4	111.6	118.1	118.1	147.6	115.4	122.5	128.3	139.9	119.8
二月 Feb.	92.6	164.1	134.5	117.7	132.0	124.3	117.0	136.3	138.9	126.2
三月 Mar.	109.7	164.0	141.6	123.5	131.1	129.3	111.5	142.9	132.8	129.1
四月 Apr.	104.4	116.9	146.3	121.2	131.0	121.9	107.1	143.4	131.6	123.5
五月 May	100.3	122.7	133.7	123.0	127.4	119.3	103.9	141.6	134.0	121.5
六月 June	94.6	129.8	123.4	131.3	128.1	117.9	111.3	131.4	135.2	120.3
七月 July	95.3	117.4	127.0	132.2	130.3	117.0	111.9	135.1	147.4	121.2
八月 Aug.	83.6	141.2	130.5	126.9	128.5	117.9	111.6	127.6	132.7	119.7
九月 Sep.	84.1	145.9	118.2	121.1	128.7	117.5	111.3	136.6	130.7	120.3
十月 Oct.	87.1	137.1	121.9	135.9	128.7	118.8	109.4	122.8	131.0	119.3
十一月 Nov.	92.3	127.7	132.7	123.9	133.6	120.1	109.8	130.3	133.3	121.4
十二月 Dec.	95.1	133.4	127.9	113.7	133.1	120.2	107.7	146.0	135.2	123.0

四 南京零售物價指數(續)

4. Index Numbers of Retail Prices in Nanking—*Continued*

時期 Period	食物 Food						衣着 Clothing	燃料 Fuel and Light	雜項 Miscellaneous	總指數 General Index
	米麵 Cereals	蔬菜 Vegetables	肉 Meats	菓品 Fruits	其他 Others	平均 Average				
民國十八年 1929										
一月 Jan.	105.7	181.5	142.3	117.3	136.1	133.3	109.6	149.6	130.0	133.8
二月 Feb.	110.8	160.1	145.5	115.8	130.9	131.3	124.0	151.8	120.4	131.9
三月 Mar.	111.0	121.0	139.0	102.5	126.6	122.1	124.0	159.1	130.3	128.1
四月 Apr.	107.3	140.3	132.5	96.7	124.2	122.4	123.8	144.3	129.0	126.3
五月 May	106.9	106.7	133.0	110.8	119.5	115.6	121.7	146.1	127.8	122.1
六月 June	113.5	116.6	137.2	115.5	117.1	119.5	123.1	151.5	130.3	125.7
七月 July	111.2	118.2	145.0	88.9	116.8	117.4	123.9	145.6	130.3	123.6
八月 Aug.	122.7	161.0	156.4	101.0	117.6	130.4	123.9	145.0	131.2	131.7
九月 Sep.	120.1	156.4	134.8	99.6	119.9	125.6	126.6	142.0	131.1	132.8
十月 Oct.	116.7	132.8	139.2	103.9	122.6	123.8	124.6	139.7	128.0	126.5
十一月 Nov.	113.3	126.0	122.8	97.8	128.0	119.9	121.2	136.5	131.2	123.5
十二月 Dec.	126.0	187.8	154.6	107.8	131.2	140.0	126.8	153.4	140.9	140.1
民國十九年 1930										
一月 Jan.	130.8	183.7	166.1	109.8	140.0	145.6	125.4	159.4	146.4	144.5
二月 Feb.	133.8	207.1	123.9	113.6	133.4	140.2	124.7	147.9	143.7	139.6
三月 Mar.	137.1	202.8	132.4	100.0	136.3	142.0	125.5	151.5	140.6	140.9
四月 Apr.	146.7	178.0	129.5	101.8	132.4	138.9	127.2	153.0	132.8	138.7
五月 May	147.2	155.4	128.0	97.6	123.4	133.2	122.2	163.9	130.5	135.1
六月 June	132.2	115.9	126.2	123.3	125.4	124.8	125.0	166.7	125.7	129.2
七月 July	136.4	164.5	132.2	115.3	140.6	139.1	120.3	171.1	124.8	138.8
八月 Aug.	126.8	136.7	140.7	117.0	129.7	131.0	124.0	169.8	125.2	133.7
九月 Sep.	108.1	123.6	138.2	118.2	130.6	123.7	123.1	177.9	127.5	130.6
十月 Oct.	94.9	156.4	111.7	115.8	137.3	124.5	127.6	164.2	132.0	130.4
十一月 Nov.	93.1	139.8	115.8	104.3	144.8	120.8	123.7	155.8	127.2	126.0
十二月 Dec.	96.1	136.6	111.4	106.1	144.8	120.3	122.7	163.9	135.1	127.7

1 自二十年一月起改編工人生活費指類,見下頁.
Beginning from January, 1931, the Cost-of Living Index Numbers of Laborers are compiled. See next page.

2 十九年以前由實業部統計科編製.
Before 1930, the Index Numbers are compiled by the Statistics Division, Ministry of Industries, Nanking.

五　南京工人生活費指數

5. Cost-of-Living Index Numbers of Laborers in Nanking

編製機關：南京市社會局　　Computing Agency: *Bureau of Social Affairs, Nanking*

採取物品：五十九　　Commodities Included: *59*

計算公式：加權算術平均　　Formula Used: *Weighted Arithmetic Mean*

價格基期：1930　　Base Period: *1930*

時期 Period	食物 FOOD					衣着 Clothing	房租 Rent	燃料 Fuel & Light	雜項 Miscellaneous	總指數 General Index
	米麵 Cereals	蔬菜 Vegetable	肉 Meat	其他 Others	平均 Average					
民國二十年 1931										
一　月 Jan.	64.99	99.04	103.98	109.78	88.36	111.50	100.00	123.36	106.63	94.74
二　月 Feb.	65.42	159.21	109.63	114.21	91.41	114.18	100 00	118.93	108.91	99.58
三　月 Mar.	70.82	127.61	104.65	103.47	88.34	105.30	100.00	116 99	107.99	97.11
四　月 Apr.	70.05	166.25	102 40	104.26	93.21	109.13	100.00	114.21	103.71	94.91
五　月 May	70.01	151.93	102.21	197.31	109.44	104.92	100 00	111.02	115.83	109.93
六　月 June	70.80	173.38	85.49	100.72	89.99	104.84	100.00	116.62	121.58	101.05
七　月 July	81.92	205.01	86.22	85.99	96.24	105.37	100.00	114.54	110.19	101.73
八　月 Aug.	88.88	217.87	87.74	94.10	103.46	107.43	100.00	110.30	96.83	102.27
九　月 Sep.	98.91	209.07	92.96	78.50	105.37	108.19	100.00	108.33	101.05	104.20
十　月 Oct.	93 63	208.79	89.16	112.75	106.91	113.85	100 00	113.38	112.15	108.32
十一月 Nov.	126.63	123.92	103,01	81.17	108.74	108.76	100.00	106.54	106.95	107.22
十二月 Dec.	107.14	116.65	88.99	85.24	93.58	110 31	100 00	109.59	126 58	104.02

六 廣州零售物價指數

6. Index Numbers of Retail Prices in Canton

編製機關：廣州市政府統計股

Computing Agency: *Municipality of Canton*

採取物品：五十（內食物31，衣着8，燃料4，雜項7）

Commodities Included: *50 (Food, 31; Clothing, 8; Fuel and Light, 4; Miscellaneous, 7)*

計算公式：簡單幾何平均法

Formula Used: *Simple Geometric Mean*

價格基期：民國十五年

Base Period: *1926*

根據刊物：統計週報 廣州市政府統計股編

Sources of Information: *"Statistical Bulletin," Municipality of Canton*

時期 Period	食物 FOOD					衣着 Clothing	燃料 Fuel & Light	雜項 Miscellaneous	總指數 General Index
	米 Rice	肉 Meat	蔬菜 Vegetables	其他 Others	平均 Average				
民國十五年 1926	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
民國十六年 1927	**95.5**	**103.1**	**106.1**	**116.8**	**106.5**	**99.7**	**92.7**	**102.5**	**103.8**
民國十七年 1928	**96.8**	**106.6**	**108.0**	**122.2**	**109.6**	**98.6**	**82.9**	**126.8**	**107.6**
民國十八年 1929	**101.6**	**113.1**	**115.4**	**122.2**	**114.2**	**96.2**	**85.8**	**112.7**	**108.4**
一 月 Jan.	102.2	112.3	117.3	120.3	114.0	97.6	86.1	107.0	107.8
二 月 Feb.	101.2	113.4	123.1	119.6	115.3	97.6	86.4	108.2	108.7
三 月 Mar.	101.2	112.6	125.0	118.8	115.3	98.3	86.4	108.2	108.8
四 月 Apr.	99.8	109.9	144.6	121.0	119.5	97.4	86.0	110.8	111.4
五 月 May	98.2	105.7	150.2	118.7	118.4	97.4	86.0	112.2	111.1
六 月 June	97.9	105.8	114.8	117.6	110.1	97.1	86.3	112.0	106.1
七 月 July	96.0	126.7	104.7	119.0	112.0	94.3	78.9	117.5	106.7
八 月 Aug.	96.9	119.4	95.3	122.6	109.0	95.0	78.5	116.4	104.8
九 月 Sep.	102.2	118.7	113.0	123.8	115.4	95.5	82.1	115.5	109.0
十 月 Oct.	106.6	115.0	107.0	127.6	115.0	98.5	84.5	113.6	109.3
十一月 Nov.	108.0	110.9	97.5	127.8	111.7	95.4	88.6	115.9	107.5
十二月 Dec.	109.6	108.8	105.4	130.2	114.5	94.6	101.1	116.0	110.2
民國十九年 1930	**111.0**	**116.5**	**119.5**	**126.5**	**119.3**	**97.6**	**101.3**	**121.1**	**114.2**
一 月 Jan.	114.0	113.2	119.4	130.0	120.2	95.5	106.4	114.2	113.9
二 月 Feb.	116.9	120.4	120.5	125.7	121.4	94.7	109.6	117.8	115.2
三 月 Mar.	108.1	126.5	108.3	122.0	116.5	95.3	106.9	121.5	112.7
四 月 Apr.	115.9	122.9	139.8	122.0	125.3	94.0	96.8	122.2	116.8
五 月 May	118.1	119.5	152.2	122.9	128.1	94.9	95.1	121.4	118.3
六 月 June	121.0	119.8	93.6	125.4	116.0	96.4	95.3	121.4	111.2
七 月 July	119.2	117.4	109.9	130.9	119.9	99.0	101.2	122.2	115.0
八 月 Aug.	112.1	111.1	118.9	129.5	119.0	99.9	100.8	122.3	114.6
九 月 Sep.	111.2	110.2	118.0	129.5	118.3	100.1	100.3	122.3	114.1
十 月 Oct.	104.7	112.4	129.1	128.4	119.9	100.3	100.6	121.7	115.1
十一月 Nov.	96.1	113.5	118.2	126.1	115.5	100.5	102.1	123.2	112.9
十二月 Dec.	98.8	113.0	107.6	126.2	112.6	100.5	102.2	123.9	111.2

THE COST OF LIVING INDEX NUMBERS OF LABORERS

GREATER SHANGHAI

January 1926—December 1931

BUREAU OF SOCIAL AFFAIRS
THE CITY GOVERNMENT OF GREATER SHANGHAI
1932

We expected to put out this publication at the end of January this year. When, on January 28, our publisher, the Commercial Press, promised to get ready with everything in two or three days, we could not refrain from our joy that this piece of our years' patient work was soon to appear before the public, whose approval and criticisms we have so eagerly awaited. The next day, the Press was levelled to the ground under the ruthless attack of Japanese bombers. Among the incalculable losses was this well-nigh completed publication of ours. The same fate befell to another publication of ours, entitled "Industrial Disputes, Not Including Strikes and Lockouts, Greater Shanghai, 1930," before it was half-way completed. It took us months to prepare a new manuscript of the present publication with necessary revisions and additions; the data of 1931 are added, and the index numbers extend now over a period of six years. Mr. William C. Wood, who had been taking care of the collection of data for the study, resigned his post last spring. It is through the effort of Mr. D. L. Ting, who under the intense situation was able to secure the price quotations regularly, that the work was not interupted throughout the period of warfare.

T. Y. TSHA.

SHANGHAI, JUNE, 1931.

PUBLICATIONS
OF
THE BUREAU OF SOCIAL AFFAIRS
CITY GOVERNMENT OF GREATER SHANGHAI
ON
LABOR STATISTICS

1928

Annual Report on Labor Strikes in Greater Shanghai.
Report on Industrial Disputes in Greater Shanghai.
The Index Numbers of Earnings of the Factory Laborers in Greater Shanghai.

The above publications are obtainable at the Dah Tung Book Company, Foochow Road, Shanghai, at $1.20 per copy.

1929

Strikes and Lockouts, Greater Shanghai. Price $3.50
Industrial Disputes—Not Including Strikes and Lockouts—Greater Shanghai. Price $5.00
Wages and Hours of Labor, Greater Shanghai. Price $5.00

1930

Strikes and Lockouts, Greater Shanghai. Price $4.00

The above publications are obtainable at the Commercial Press, Limited, Honan Road, Shanghai.

Industrial Disputes—Not Including Strikes and Lockouts—Greater Shanghai. Price $5.00

1931

The Cost of Living Index Numbers of Laborers, Greater Shanghai. Price $2.50
The Standard of Living of Laborers in Shanghai.
Strikes and Lockouts, Greater Shanghai, 1918-1931.
Industrial Disputes—Not Including Strikes and Lockouts—Greater Shanghai, 1928-1931.
System of Wage Payments in Shanghai.

The above publications are obtainable at the Chung Hwa Book Company, Ltd., Foochow Road, Shanghai.

In addition to the above, the Bureau has also translated the following books into Chinese:

Methods of Compiling Cost of Living Index Numbers. Price $0.40
Methods of Compiling Unemployment Statistics. Price $0.35
Methods of Statistics of Collective Agreements. Price $0.30
Methods of Statistics of Industrial Accidents. Price $0.50
Housing Situation in the United States. Price $0.40
Methods of Conducting Family Budget Enquiries.

The above publications can be obtained at the Commercial Press, Limited.

FOREWORD

In presenting the Cost of Living of the workers in Shanghai to the public we consider it an opportune moment to point out a few facts regarding the labor situation and our progress in the work of statistics. This is only the fourth year since we first started investigations in this city. Yet the results have yielded interesting and significant facts which may be set forth as follows:

In the first place a study of labor unrest in the past few years reveals the close correlation between political and social developments, and especially of the important effects of labor legislation and administration. For example, great excitement prevailed in the labor world in the years of the great revolutionary upheaval of 1927 and 1928, and the presence of communistic elements seriously aggravated the disturbances and made settlement of disputes extremely difficult. But the Government has since, by creating and enforcing various labor laws, helped to reduce labor conflicts or to effect their speedy settlement. Labor unrest may be said to have passed from the excited years of 1927 and 1928 to the comparative calm of 1929 and 1930. Particularly interesting are the laws for labor organizations which do not provide for a general labor union for all industries in a city. Such organizations have been the seats of trouble. A labor union, however, may be organized for an industry, and this provision has so far proved its value by satisfactory application. In these cases government action has definitely tended to create a better situation, and it constitutes a positive refutation of the assumption that economic or intellectual undertakings of the people could be successful only if free from government supervision.

In the second place the results of our investigations in wages, hours of labor, cost of living and standard of living reveal in exact figures the true status of labor. Shanghai boasts of a labor force of 285,000 workers in the twenty-one main industries of which the textile is the foremost in magnitude and importance, the cotton spinning industry alone employing 40 per cent of the total number of factory workers in the city. Of this well-nigh a third of a million workers, 30 per cent are men; 60 per cent, women; and 10 per cent, children. The preponderous proportion of women is due to their peculiar adaptability to textile and cigarette manufacturing, and also to the lower wages they command.

The great majority of these laborers work from 11 to 12 hours per day, and generally with only 2 or 3 days off a month instead of Sundays.

Their wage averages per hour are: for men, $0.073; for women, $0.044; and for children, $0.034.

The average expenditure per month for a family of 4.62 persons or 3.28 equivalent adults, Atwater scale, is $37.86. Of this sum the family has to spend $20.13, or 53.2 per cent, for food; $2.83, or 7.5 per cent, for clothing; $3.15, or 8.3 per cent, for rental; $2.42, or 6.4 per cent, for fuel and light; leaving $9.33, or 24.6 per cent for all other expenses. The last named figure seems not too low a one when compared with similar studies in other countries. This includes education, recreation, accidentals, medicine, social, religious, and festival occasions, these latter items, though dropped from the computation of index numbers due to the lack of a clearly defined standard for measuring their price movements, being as much a necessity as food and fuel in a country like China with her old customs and traditions.

Thirdly, there are two outstanding facts occurring in 1930 that call for our attention. First, there was an unusual rise in the cost of living in 1930. There was a general increase of 16.7 per cent over 1926, the base year; and an increase of 17.4 per cent in the item of food alone in 1930 over 1929, a fact that must have told very hard on the workers. At the same time the proportion of strikes and disputes due to wage disagreements in 1930 also showed a sudden increase of almost 20 per cent as compared with 1929. Thus there seems to be some correlation between the two, and it inclines one to believe that labor complaints at present are due more to economic conditions than to mere class agitation.

1930 further witnesses the Government's effort to better the industrial conditions by getting ready to enforce the Factory Law. This Law sets certain limitations on hours, wages, child and woman labor, and provides for welfare work, security against accidents, and a factory council representing both employer and employee. Although the conditions of labor are not satisfactory as have been set forth in the preceding section, great numbers of factory owners declared the regulations to be impractical, and so its enforcement was postponed to August 1, 1931. It is true that business conditions are depressing, and young industries have to be nurtured with great care. But better treatment would decrease friction and increase labor efficiency and productivity, which would be an economic gain for all concerned, and by the time this book goes out to the public we hope the feasibility of the measure will have been demonstrated.

So much for the political, legislative and the economic aspects of the labor situation. We shall now say a word in regard to the method and progress of our investigations.

We are now publishing for the first time figures on the cost of living of workers in this city. In addition we have published for 1930, as for previous years, strikes and lockouts, wages and hours of labor, etc. Similar treatises on some of these subjects have been published by various organizations and institutions for Peiping, Tientsin, Nanking, Canton, etc., and we are glad to see that most authors with certain adaptations have fallen in with the methods of investigation and compilation as outlined by the International Labor Office or adopted by other leading countries on labor statistics. There is a tendency toward standardization of methods and the sooner this is done the easier will the comparative study of labor statistics become. Works on wages and hours of labor, however, are particularly scarce in this country, and we hope institutions and organizations the country over will make efforts toward their compilation.

For the same reason the reader will find that we have adopted in this publication the new standards of weights and measures known as the "Market System," which is based upon the Metric System, to be enforced on July 1, 1931. Hence our figures, in retail prices, for instance, may not be identical with quotations then prevailing in the markets. But for the sake of standardization we feel we are called upon to promote the standard system advocated by the Government.

As to the scope of inquiry and the detailed analysis of the account books recorded during the investigation, they will be found in another book, "The Standard of Living of Laborers, Greater Shanghai," which will immediately follow as a supplement to the present study.

But these investigations form only the first stage of our work. So far the results are very encouraging. But we expect to continue and extend the investigations in accordance with the plans and projects laid down. Preliminary surveys of some other important items in the project have already begun, and our plan for the immediate future includes intensive investigations into some of the leading industries of this city such as cotton spinning, silk reeling, etc.

We appreciate the patient work and the intelligent coöperation of our staff members, and especially of Mr. D. L. Ting, on Strikes and Lockouts; of Mr. William C. Wood, on the Standard and Cost of Living; of Mr. D. L. Ting and Mr. Luther C. T. Mao, on Wages and Hours of Labor; of Mr. S. Z. Chow, on Industrial Disputes that do not lead to Strikes and Lockouts, etc. For the present publication we owe a great debt to the 305 families who had, in the course of a year, continually and willingly supplied us with detailed records of their daily income and expenditure, and to the stores and markets from which the families get their supplies, which have

been and are still regularly supplying us with the necessary price quotations. The original manuscript of this publication in Chinese was prepared by Mr. William C. Wood of our staff. It is gratifying to find that he has so faithfully and conscientiously carried out the work in accordance with the plan laid down for it. The English translation was rendered by Mr. C. H. Fei who has taken great pains to give a correct version of the original. Space does not permit the mention of the names of other members who have taken part in the collection and computation of data in connection with this work. Deep gratitude is also due to Dr. Franklin Ho, Director, Nankai University Committee on Social and Economic Re-Tientsin; Mr. T. Sheng of National Tariff Commission, Ministry of Finance; Dr. J. C. Chao of Ministry of Railways, Nanking; Prof. L. K. Tao of the Institute of Social Research, China Foundation for the Promotion of Education and Culture, Peiping; Dr. D. K. Lieu, Director, Bureau of Statistics, National Government Comptroller Office, Nanking; and Prof. P. B. Sullivan of St. John's University, Shanghai, who kindly read over the manuscript and suggested valuable improvements and corrections. In acknowledging the faithful and hearty coöperation of all parties for the past and present may we plead for their enthusiastic support for the future.

T. Y. TSHA.

SHANGHAI, JUNE, 1931.

PREFATORY NOTE

One important essential factor to the solution of any problem is a knowledge of the facts surrounding that problem. China is now at the inception of modern industrialism. Its old economic balance had broken down and is now in the process of being replaced by something more modern. It would be unfortunate indeed if the Chinese people in emerging into a modern industrial state were obliged to make the costly mistakes which marked the evolution of industrialism in the Occident. They should place themselves in a position to take from the treasure house of the experiences of Western peoples such lessons as may be helpful to them. A study such as Mr. T. Y. Tsha is conducting should assist greatly in paving the way to a proper appraisement of conditions obtaining in industrial China, thereby making it possible for the Chinese people intelligently to apply to the solution of their problems the experiences of the more advanced industrial nations.

JULEAN ARNOLD.

OFFICE OF COMMERCIAL ATTACHÉ
BUREAU OF FOREIGN AND DOMESTIC COMMERCE
U. S. DEPARTMENT OF COMMERCE
SHANGHAI, JULY, 1931.

PREFACE

"So far as is known, nowhere in the world was there, prior to 1914, a price index based on a balanced family budget and with retail prices weighted according to consumption."[1] The compilation of the cost of living index number is, therefore, a natural outcome of the Great War, for during that great episode of history the monetary inflation has progressed so far that the cost of living, relative to 1913 as the base, has more than doubled in the belligerent nations of the West. By 1920 the index has reached the peak in almost all of these countries, being 200 for the United States, 252 for the United Kingdom, 341 for France, and 442 for Italy.[2] This rapid and none the less violent rise in the cost of living, which calls forth various attempts to compile index numbers for its measurement, whether by the government agencies or by the private institutions, has resulted, as early as the year 1925, in the compilation of the cost of living indices in as many as 31 countries, namely, 24 in Europe, 2 in North America, Africa and Australia respectively, and 1 in Asia.[3] Even in an industrially backward nation such as India, an index number of the cost of living of the working class in Bombay has been published ever since 1922, which is based on a budgetary inquiry of 2,473 families and 603 men living alone,—an inquiry which, according to the International Labor Office, "was based on a larger number of budgets than any other similar inqury in other countries for any single city at one particular period."[4]

In China, the compilation of the cost of living index numbers remained a novelty until the appearance of the Peiping index on the first of January, 1929. This index, as compiled by the Social Research Institute, was rapidly followed by two other indices in July 1930,—the one for Tientsin by the Nankai Institute of Economics and the other for Shanghai by the National Tariff Commission of the Ministry of Finance. The publication of the present index for Shanghai by the Shanghai Bureau of Social Affairs is therefore a further evidence of the increasing appreciation of the usefulness of such an index, and cannot but add to the better understanding of the complicated issue arising from the instability of a modern

[1] National Industrial Conference Board, The Cost of Living in the United States, 1914-1926, pp. 1-2.

[2] U. S. Monthly Labor Review, August, 1929, pp. 305-6.

[3] International Labor Office, Methods of Compiling Cost of Living Index Numbers, 1925, Appendix II.

[4] Methods of Conducting Family Budget Enquiries, 1926, p. 66.

pecuniary order. It is interesting to note, in this connection, the degree of uniformity in respect of the methods employed for the compilation of the four indices. All of these indices are based upon a budgetary survey of from 48 to 305 families, and with the exception of the Peiping index, the year 1926 is taken as the base. The formula employed is, except that of the Commission's index for Shanghai, the weighted aggregative which is numbered 53 under the Fisher system. The period covered begins in all cases with 1926, and with the exception of the Tientsin index which is published weekly, these indices are computed on a monthly basis. The number of commodities included is rather close, being 38 for the Peiping index, 40 for the Tientsin index, 43 and 60 for each of the two Shanghai indices respectively. Finally, all of these indices refer to the cost of living of a particular class, namely, the laboring class. In this respect, the present index by the Bureau is to be congratulated for having covered workers in a city which is the most industrialized all over China. The other index for Shanghai, as compiled by the National Tariff Commission, refers to the cost of living of the cotton mill workers. The Tientsin index, like that for Shanghai, is also comprehensive inasmuch as it applies to the craftsman. The Peiping index, the weights for which are obtained

An analysis of cost of living indices in China

Locality covered	Shanghai	Shanghai	Tientsin	Peiping
Family budget survey				
No. of families covered	305	230	132	48
Type of families	Largely factory workers	Cotton mill workers	Craftsmen	Largely ricksha coolies
Period covered	Apr., 1929—Mar., 1930	Nov., 1927—Oct., 1928	Sep., 1926—June, 1927	Oct., 1926—Mar., 1927
Index of cost of living				
Compiling agent	Shanghai Bureau of Social Affairs	National Tariff Commission	Nankai Institute of Economics	Social Research Institute
Date of first publication	Jan. 1932	June. 1930	June 30,1930	Jan. 1, 1929
Period covered	1926—date	1926—date	1926—date	1926—date
Periodicity	Monthly	Monthly	Weekly	Monthly
Base	1926	1926	1926	1927
Formula	53	9001	53	53
No. Commodities included:	60	43	40	38
Food	31	24	24	23
Clothing	11	8	8	7
Rent	3	1	4	1
Fuel & Light	8	4	2	4
Miscellaneous	7	6	2	3
Published in		*Price and Price Indexes in Shanghai*	*Nankai Weekly Statistical Service*	*Monthly Index Numbers of the Cost of Living in Peiping*

after a budgetary survey of 48 families, chiefly of ricksha coolies, is rather restricted in scope.[1]

Despite the fact that we have now in our possession four cost of living indices each of which will undoubtedly contribute to the more just solution of the industrial problems in an emerging industrial order, the compilation of the cost of living index numbers in China in still an unexplored field. In China no single index number of the cost of living has yet been compiled that is truly representative of any class of the nation at large. Such an index, which oftentimes loses its definiteness by being comprehensive, furnishes nevertheless a far better basis for international comparison. Its significance cannot be denied when we realize that the cost of living index for the United Kingdom, for instance, covers as many as 630 localities. May we hope that the excellent beginning that a government organization like the Shanghai Bureau of Social Affairs, under the able direction of Professor T. Y. Tsha, has made in the collection and analysis of labor statistics—statistics relating to wages, cost and standard of living, hours of work, industrial disputes including strikes and lockouts—will be followed up by other governmental organizations in the not too remote future?

H. D. FONG.

NANKAI INSTITUTE OF ECONOMICS
TIENTSIN, NOVEMBER 1931.

[1] Yang, Simon: An Index of the Cost of Living in Peiping, 1929; Sheng, T.; The Cost of Living Index Numbers in Shanghai, 1930; An Index Number of the Cost of Living in Tientsin, Nankai Weekly Statistical Service, June 30, 1930.

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THE COST OF LIVING INDEX NUMBERS OF LABORERS

GREATER SHANGHAI

(January 1926—December 1931)

EXPLANATION OF THE METHOD OF COMPILATION

I. MEANING AND PURPOSE

Meaning of Cost-of-Living Index Numbers

An explanation of this term may be made under two separate treatments; namely, what is meant by cost of living and what is meant by an index number. Cost of living, as the term implies, is the cost of the items of consumption which are required to maintain a living. However, such an explanation would get us nowhere. The manner of living differs widely with different social status and financial standings. The luxuriously indulgent life of the capitalist class is in no way comparable with the living of the wretchedly-provided-for group of laborers either as to the amount of expenditure, or as to the items of consumption entering into their expenditure, or as to the percentages the various items constitute of the total expenses. Therefore any definite idea of the cost of living would not be possible without first inquiring into the problem of the standard of living. Standard of living is, according to Marshall, the standard of activities adjusted to wants.[1] Human wants, the origin of all activities of economic life, may be classified into three kinds, necessities, comforts, and luxury. Wants of the first type imply the lowest possible standard of living for human existence. This in its strictest sense would include nothing but those necessary for a bare subsistence. Such a primitive mode of living is, however, not always practicable. The standard of necessity may therefore be taken to mean the desire for food, shelter, and clothing which are physiologically necessary to prevent physical deterioration. Wants of the second type comprise, beyond mere necessities, a certain scale of comforts, which are

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[1] Marshall, Alfred; Principle of Economics, p. 689.

considered indispensable to adjust to one with an advanced scale of desire and which help to procure both physical and mental development. Such a scale includes all expenses for social, educational, medical, hygienic, recreational and similar purposes. Lastly, wants of the third type involve all unessential pleasures and superfluous consumption which extend beyond the standard of comfort. Such a classification is more or less arbitrary. The rapid progress of civilization, with its wonderous inventions, have directed human efforts toward a higher standard of wants in the form of comforts and luxuries, which necessitates an almost regrouping of the items under the respective types of wants. Comforts and luxuries of the old days are deemed mere necessities to-day, and as time goes on, what appear to be comforts and luxuries to-day will probably be nothing but necessities. Not only does the standard of wants change as society at large progresses, but it also differs among different communities and among different classes of individuals. An automobile, for instance, is still considered as an item of luxury in this country; while in the United States, it is hardly a comfort as every five persons are provided with a motor car. The classification of wants is, therefore, by no means absolute; but is relative to the varying conditions in any particular society at any time or in any place. Bullock states that "the amount of comforts or luxuries customarily enjoyed by any class of man forms the standard of living of that class."[1] Such a standard determines the actual cost of living of that particular class. The present publication will deal exclusively with the cost of living of the laboring class in Shanghai.

What is an index number? An index number is a series of figures which measures the relative changes of group statistical data from one point of time to another, or from one place to another.[2] Most people have at least a rudimentary idea of a "high cost of living" or of a "low level of wages," but usually very little idea as to how high or how low the levels are. It is to measure such magnitudes that "index numbers" were invented. Index numbers tend to give an accurate conception of such changes in terms of exact figures. Again it is group statistical data that are taken into consideration. For illustration, the prices of different articles move very differently. They seem to scatter or disperse like the fragments of a bursting shell. But, just as there is a definite center of gravity of the shell fragments, as they move, so is there a definite average movement of the scattering prices. Index numbers show the relative changes of the average prices. Furthermore, the changes are relative to a certain standard of comparison, which equals to 100. The comparison may

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[1] Bullock, C. J; Introduction to the Study of Economics, p. 126.

[2] 何廉: 三十餘年來我國已編之物價指數,北京銀行月刊,第七卷第二號,第一頁。

be made either between two points of time or between two places. When an index number is applied to comparisons between two periods of time, the method of comparison would be to take the figures for a specific period as 100, which forms the basis of comparison with all the divergent figures for other periods. Likewise when an index number is applied to comparisons between two places, the basis would be the figures for a specific locality. An index number may be calculated for prices, for wages, for changes in the exchange rates, for changes in the stock market, for amounts of production and consumption, and in fact for most subject matters involving the divergent changes of a group of magnitudes. The cost-of-living index numbers, therefore, measure the average percentage changes of the cost of living of a particular class of individuals from a certain period of time or a certain locality to another. This report aims at showing only the percentage changes in the cost of living of Shanghai laborers of a given period with that of the base period.

Purpose of Cost-of-Living Index Numbers

Before the World War the attempts to measure changes in the cost of living were made generally with the object of showing changes in the purchasing power of money in the retail market. The index numbers compiled were mostly simple arithmetic averages based on the prices of a few items of ordinary consumption such as food, fuel, etc. Prices moved slowly, and the purchasing power of money exhibited no marked variations. Consequently all long-term contracts on a money basis, the wage contract for instance, required only occassional readjustments to the movement of prices. However, the very rapid changes in prices in all countries during and since the War, and hence in the purchasing power of money, have made clear the necessity of a readjustment of various long-term contracts. All long-term contracts fixed for a given period, during which the cost of living rises, result in a condition that though the amount of money stipulated in the contract remain the same, the real value of the amount in terms of its purchasing power is considerably less at the end than at the beginning of the period. The effect has been especially hard upon the working class, who suffer both from the rising cost of living and the depreciating value of their money wages. The workers will therefore endeavour to secure increases in money wages, and in support of their claim will call attention to the increase in the cost of living. However, the existing index numbers were often of a rather incomplete nature that doubt was often expressed by the employers or by the workers regarding the amount of change which, it was claimed, had taken place. Wage disputes were difficult to settle owing to the existence of this margin of doubt. In order to remove such difficulties, steps were taken to compile index numbers

showing changes in the cost of living by the use of more complete data and sounder methods. These index numbers were compiled sometimes by private individuals, but more frequently by joint committees of employers and workers, by municipal or other local authorities, or by the statistical office or other department of the central government.[1] The index numbers thus computed have been very widely used especially in connection with adjustments of money wages. The sliding-scale system has been advocated in many countries. It has been advocated that the wage-earning class should be entirely free from the effects of price movements, and that the minimum rate of wages should be fixed in such a way that one-third of the wages remains constant and two-thirds of which are fixed at a variable scale adjusted to the changes in the cost-of-living index numbers. In Great Britain the wages of over three million laborers have been periodically adjusted by means of index numbers.[2] Similar arrangements are found in Belgium, Denmark and other countries. While in other countries, although no regular system of automatic adjustment has been applied, the cost of living index numbers have played an important part in the discussions for effecting changes in money wages. One of the reasons advanced for the non-adoption of sliding scales for adjusting wages to changes in the cost of living is that there has been a lack of confidence in the reliability of the index numbers available.

Since the advent of the tide of industrialization from the West, there has been an upset of the economic life in China. Foreign investments have brought to this country many factories with their elaborate systems of management, well-equipped machinery and large scale production. The crude organization of handicraft industries that had long existed in this country soon found itself no match for the new power of the industrial world. Farmers and handicraft workers, either forced by the depression of their old occupation or attracted by the higher pay in the factories, flocked to such newly-developed industrial centers as Shanghai, Tientsin, Hankow, Canton and other cities.

This group of workers has been ever increasing in number and has tended to form a distinct class in society. This is a class of wage-earners who depend upon wages as their chief means of subsistence, and who form the largest consuming group in the community. A low level of prices, therefore, would mean to them an easier mode of living. On the other hand, there are a group of capitalists, who, though fewer in number, yet constitute the controlling class in the economic world, they invest their capital,

[1] International Labor Office: Methods of Compiling Cost of Living Index Numbers, 1925, pp. 7-9.

[2] Irving Fisher: The Making of Index Numbers, p. 460.

pay a fixed amount of rent and wages, and receive in return their share of production in the form of profits. They naturally hope to put prices at a higher level, as this would mean a higher rate of profit on their investment. The divergent interest between these two classes has staged one of the most serious conflicts of our modern industrial system, that is, strikes and lockouts or other minor disputes. In Shanghai, statistics of labor disputes have been systematically compiled since 1928. In the last three years, from 1928 to 1930, there occurred altogether 318 cases of strikes and lockouts, in which 7,622 establishments and 346,963 workers were involved and a loss of 4,572,174 man-days and of $2,550,765.64 in wages was incurred.[1] Taking the averages for the three years, the number of cases amount to 106, with an average of 2,540 establishments and 115,654 workers involved and a loss of 1,524,058 man-days and of $850,255 in wages incurred each year. However, the above figures only take into consideration the measurable losses of the cases of strikes and lockouts. The indirect losses resulting from these disputes, and the losses incurred in cases of minor disputes which do not result in strikes and lockouts are not calculable. The above would suffice to show the seriousness of labor conflicts in this city.

When inquiring into the causes of such conflicts, the problem of wages forms the center of contention. Quite a number of cases of strikes and lockouts are the results of disputes over wages.[2] The strongest argument held by the laborers in support of their demands for increase of wages is the rising cost of living, which has rendered the amount of their income insufficient to maintain their living. As a matter of fact, the rising cost of living has been alleged not only by the working class but by the general public at large. But how far has the cost of living risen? No one can tell with definiteness. The actual changes in the cost of living can only be accurately measured by means of index numbers, which would, therefore, provide a standard for wage adjustments. It is through cost-of-living index numbers that we hope to find a way out toward the solution of labor disputes.

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[1] Bureau of Social Affairs: "Strikes and Lockouts, Greater Shanghai, 1930." (The above figures include all the cases which were not settled at the end of each year and were carried over to the next year. In 1928, 2 cases were carried over from the year 1927, and, in 1929, 3 cases were carried over from the previous year. Making allowance for such duplications, the total number of cases in the three years amounted to only 313. Likewise with the number of establishments involved and other items.)

[2] *Ibid.*

II. METHOD OF COMPILATION

Statistics of cost of living represent one of the most complicated branches of labor statistics. An inquiry into the cost of living of different classes of individuals would involve a careful study of the varying status of economic conditions. In compiling the cost-of-living index numbers, therefore, various problems should be taken into consideration. An explanation of the method of compilation is to be made here under five separate headings as follows:

Sampling of Commodities

The various commodities that enter into the cost of living would make up a most elaborate schedule. Inclusion of all the varieties in the compilation of index numbers is naturally impracticable. The purpose of cost-of-living index numbers is to show the tendency or change in the cost of commodities that are required to maintain a certain particular standard of living, but not the aggregate amount of expenditure required to maintain the minimum standard of life from time to time. It is, therefore, in view of the relative character of the index numbers, necessary to choose out of the entire list of commodities only a certain number of representative items. If the movements of the prices of commodities as a whole are similar to those of the group chosen, no purpose would be served by extending the scope of the enquiry. Hence arises the problem of "sampling." To ensure that the statistics could be regarded as measuring satisfactorily changes in the cost of living, the samples should include the important articles of ordinary consumption on which members of the community expend large parts of their income. The methods of selecting the items, which are widely employed in various countries, are the aggregate expenditure method and the standard budget method. The aggregate expenditure method has been used to determine the total consumption of the whole community by adding the quantities of home production during a year or some other period to those imported and deducting those exported. The result would determine the relative importance of the various items of consumption, and provide a standard for selecting the samples. Although figures regarding imports and exports are obtainable from the Custom reports, the statistics of national production are lacking in this country. Moreover, this method would give satisfactory results regarding changes in the cost of living of the community as a whole, but not necessarily of particular classes of the community or of special localities. It also fails to include such items as

rent. Evidently this method does not suit our purpose. The standard budget method may be briefly described thus: A certain number of families of a given size and of similar financial standing belonging to a particular class of a given locality are chosen. Agents are sent to these families to keep daily accounts of the quantities of goods consumed and of the amount of income and expenditure. The investigation covers a certain period of time. The account books are collected at regular intervals for computation and analysis. Similar items of consumption in each family are added together in order to get the aggregate quantity of the various items consumed. Then the average consumption of these items in each family is computed to show the relative importance of the various items of consumption. This method takes the consumption of a single family as the unit. The scope of inquiry in respect of the number of families covered may vary with the aim of investigation. It may be limited to the families of a particular group of workers in a given locality. It may cover in an extensive fashion the working families of an entire nation, such as the family budget inquiry conducted by the U. S. Bureau of Statistics in 1918 and 1919, which covered 12,096 working families of all industries and professions in 96 cities of the country.[1] In a large number of countries the weights used in the compilation of the cost-of-living index numbers are based on family budget inquiries. A comparison of the results obtained by using weights based on the family budget method and on the aggregate expenditure method in the calculation of cost-of-living index numbers shows that the difference is generally less than 5 per cent.[2] When the family budget method is used, it is unnecessary and would be impossible in practice to include all the commodities, with their almost infinite variety and differences in quality, which enter into the consumption of the community as a whole or even into that of a given class. But, instead, a number of important articles, which represent the "modal" items of consumption, should be chosen as the basis of calculation. These articles selected generally fall into five main groups: food, clothing, housing, fuel and light, and miscellaneous items. The number of items included under each group will depend upon the living condition of the individuals concerned. For instance, the food group for the Norwegian index includes as many as 55 articles, while on the other hand, the index for Vienna consists of only 16 items under the food group, of which 3 are of different kinds of coffee. Wide variations also exist

[1] Cost of Living in the United States, 1924, published by U. S. Bureau of Labor Statistics, pp. 1-2.

[2] Method of Compiling Cost of Living Index Numbers, (Series N) No. 6, 1925, published by International Labor Office, pp. 20-22.

with regard to the number of items under the clothing and the miscellaneous groups. In Austria and Germany, the miscellaneous group is omitted altogether. Less varieties are shown in the group of rent and that of fuel and light.[1]

The standard family budget inquiry conducted by the Bureau covers the period from January 1929 to March 1930.[2] At the outset, 500 families were included. These families were distributed among the four quarters of the city and Pootung. The families selected were to fulfil the standard requirements that they were working families (a) of from 3 to 5 persons and (b) with a monthly income of from $20 to $60. The first three months of the inquiry formed but a trial period, in which, owing to the lack of experience and training on the part of both the agents sent by the Bureau and the members of the families, the results were not very satisfactory. The account books kept in this period were therefore not used in this report, also a number of families which were found to be not in keeping with our standard were dropped. Also there were a number of families in which the keeping of accounts was interrupted for various

Average Number of Members per Family by Income Group

Income group	Number of families	Average number of persons per family	Average number of boarders per family	Average number of Adult equivalents per family*	Average number of gainfully occupied persons per family
$200 to below $300	62	3.95	.18	2.85	1.82
300 — 400	95	4.17	.36	3.09	1.93
400 — 500	80	4.89	.56	3.61	2.19
500 — 600	31	5.19	.94	4.02	2.42
600 — 700	25	5.92	.56	4.23	2.28
700 — 809	8	5.50	1.00	3.94	2.13
800 — 900	4	6.25	2.50	5.25	2.25
All Income	305	4.62	.47	3.42	2.06

*The adult equivalents are computed according to the Atwater's Scale, which is based upon the food consumption of persons of different ages. A male of 17 is taken as a male adult. Those below the age of 17 are computed for their equivalents to an adult according to their respective ages. For the detail of the Atwater's Scale, refer to "Methods of Conducting Family Budget Enquiry," p. 48, published by the International Labor Office. Here, boarders are also included in accordance with their duration of boarding.

[1] Ibid, pp. 11-13.

[2] For details of the inquiry, refer to "The Standard of Living of Laborers, Greater Shanghai," compiled by the Bureau of Social Affairs, (In preparation).

reasons. Thus, there were left only 305 families which went through the inquiry for the whole period of 12 months. A detailed analysis of the standard of living of the 305 families will be reserved for a subsequent publication entitled "The Standard of Living of Laborers, Greater Shanghai." The average number of members per family and the occupational distribution of the members are given in the tables accompanying:

Occupational Distribution of Occupied Members of the 305 Families

Occupation	Males				Females				Total	Percentage
	Husband	Other Adults	Children	Total	Wife	Other Adults	Children	Total		
Machinery	42	7		49					49	7.8
Construction Works	7	4		11					11	1.7
Water and Electricity	9	1		10					10	1.6
Chemical Products	2	2		4	1	1		2	6	0.9
Match	16	4		20	13		1	14	34	5.4
Cotton Spinning	73	35	10	118	74	50	34	158	276	43.9
Silk Reeling	4	1		5	9	3	2	14	19	3.0
Cotton Weaving	38	7		45	21	12	1	34	79	12.6
Silk Weaving	1			1	2			2	3	0.5
Silk & Cotton Knitting					1	1		2	2	0.3
Food	8	2		10	6	1		7	17	2.7
Tobacco	18	6		24	7	1		8	32	5.1
Printing	16	1		17	1			1	18	2.9
Wharf Workers	10			10					10	1.6
Ricsha Coolies	7	7		14					14	2.2
Peddlers	7	3		10					10	1.6
Servants	14	4	1	19	1			1	20	3.2
Others	5	7	3	15	4			4	19	3.0
Total	277	91	14	382	140	69	38	247	629	100.0

A total of 3,660 account books were finally used, for which the average consumption of each family of a certain commodity was computable, and an actual account of workers' living was obtainable. From the variety of commodities appearing in the account books, 60 items of ordinary consumption were chosen to be included in the compilation of index numbers. The items were distributed among the five groups as following: food 31; rent, 3; clothing, 11; fuel and light, 8; and miscellaneous, 7. The items are as named below:

(1) Food—Unglutinous rice, *sien* rice, glutinous rice, wheat flour, fresh noodle, bean-curd, dried bean-curd, sheet bean curd, fried bean curd, sprouted broad bean, fresh mung bean starch in strips, yellow soy bean sprouts, salted Hsueh-li-hung, chin-ts'ai, turnips, sweet potatoes, allium odorum, spinach, fresh pork, fresh beef, salted pork, chicken, silver carp, fresh fish, salted "white fish," fresh duck's egg, soy bean oil, lard, soy bean sauce, salt, white sugar.

(2) Rent—One-story house, two-story house (with court-yard, two-story house (with no court-yard).

(3) Clothing—Grey sheetings, grey shirtings, striped cotton shirtings, printed shirtings, white shirtings, native sheetings, fancy twills, cotton flannel, jeans and drills, raw cotton, cotton socks.

(4) Fuel and light—Coal, kerosene, firewood, useless timber, bean stalks, rice straw, matches, charcoal.

(5) Miscellaneous—Soap, towels, cigarettes, wine (Shao-shing), Kao-liang, tea, hot water.

These items constitute the essence of the cost-of-living index numbers. Great care should be taken, therefore, in the selection of articles. Among the five main groups of commodities, great variety is shown in the clothing and the miscellaneous items. The amount of consumption on each item is generally non-uniform and insignificant. Although only a few items of major importance are chosen to represent each group, efforts have been made that the percentage of the consumption of the various items included under the five groups should be as close as possible to the percentage of the respective groups in the total consumption. According to the family budget inquiry, the approximate percentages of the respective groups are as follows: food, 53; rent, 8; clothing, 8; fuel and light, 6; and miscellaneous, 25. While the percentages of the respective groups included in the compilation of the index numbers are: food, 63; rent, 11; clothing, 8; fuel and light, 8; and miscellaneous, 10. The figures are, therefore, quite close except for the miscellaneous group. Careful considerations should also be taken of the following matters:

(1) Some of the commodities, particularly in the group of vegetables, are highly seasonal in character. They are available only during certain seasons of the year. In good season, they are sold at very high price. Then in one month or two they begin to grow out of season, and their prices fall considerably. Such vegetables of seasonal supply, though generally consumed by the families, are however exceedingly elastic in demand and are not suitable to be included in the compilation. Such items have likewise been discarded to avoid irregularity. (2) The dwelling houses of the working families are largely of three types, cottages, one-story houses, and two-story houses. The cottages are largely built by the laborers themselves upon land rented from landowners. Only a small percentage of the working families live in such cottages. The cottages are, therefore, not included as an item under the group of rent. (3) The clothing group consists only of a limited number of

shirtings and sheetings and of cotton socks. Ready-made clothing is not included in view of the fact that most of the clothes worn by the workers are either home made or made by tailors. (4) Commodities of high quality, such as silk and satin, are not included since they are consumed only by very few families.

Application of Weights Besides the careful selection of commodities to be included in the compilation of index numbers, the various items should be properly weighted before the averages are computed. Since these items differ from one another in their amount of expenditure for each, allowance must be made for the differences if the results are to represent truly the changes in the cost of living. For instance, among the various items of consumption, rice is more important than sugar, and kerosene is more important than matches. When an average of the various items is computed, each item should be weighted according to its relative importance, so that each item will exert an influence proportional to its importance upon the average movement. The weights employed in this study will be determined by the average amount of consumption of each item of commodities by the families investigated.[1] The table on the following pages shows the average consumption of the various items by the 305 families investigated.

The quantities of consumption in the accompanying table provide the weights for the individual items. The application of these weights in calculating the result is sufficient to care for all price changes without further application of group weights, that is, the ratios of the aggregate cost of each of the five groups to the total cost. This process of group weighting may be omitted in view of the following facts. In the first place, in the sampling of commodities, the relative importance of individual items has been well taken care of, and proper weights are ascribed to every item. A number of important items in the miscellaneous group are discarded for one reason or another, but this is largely due to practical difficulties. Moreover, some miscellaneous items of prime importance, such as social intercourse, worships, wedding and funeral ceremonies, children's expenses, etc., which constitute quite a significant portion of the total cost in this group, are closely related to other groups of consumptions, particularly the food group, and their price movements

[1] Sometimes the weights employed in the computation of cost-of-living index numbers are the ratios of the cost of each item to the total cost. The index numbers compiled by the British Government are of this kind. However, the ratios to the total cost are not constant; the variation is especially great in a period of violent price changes. Therefore the actual cost on each item instead of the ratio to the total cost is employed as weights in this study.

Principal Items of Commodities, and Their Average Quantity of Consumption

Commodities	Average quantity of consumption of 305 working families with an Average of 3.42 male equivalent adults each †			
	Old System of Weights and Measures		Market system of Weights and Meure	
	Quantity ‡	Unit	Quantity ‡	Unit
Food				
Cereals and Products				
Unglutinons Rice	4.238	Shih* or Picul (Shanghai Standard)	5.014	Shih Shih*
Sien Rice	2.849	,, ,, ,,	3.370	,, ,,
Glutinous Rice	.100	,, ,, ,,	.118	,, ,,
Wheat Flour	1.122	Parcel (49 lbs.*)	1.122	Parcel
Fresh Noodles	36.106	Chin* or Catty (Hwei Kwan)	38.117	Shih Chin*
Beans and Vegetables				
Bean Curd	459.152	Piece (About 120 c. c.)	459.152	Piece
Dried Bean Curd	207.497	,, ,, ,, ,,	207.497	,,
Sheet Bean Curd	382.186	Sheet	382.186	Sheet
Fried Bean Curd	3.528	Chin* or Catty (Chao Ping)	4.138	Shih Chin
Sprouted Broad Beans	19.315	,, ,, ,, ,, ,,	22.656	,, ,,
Fresh Muug Beans Starch in strips	19.395	,, ,, ,, ,, ,,	22.750	,, ,,
Yellow Soy Bean Sprouts	42.400	,, ,, ,, ,, ,,	49.735	,, ,,
Hsueh-li-hung (salted)	57.229	,, ,, ,, ,, ,,	67.125	,, ,,
Chin Ts'ai	259.288	,, ,, ,, ,, ,,	304.145	,, ,,
Turnips	44.510	,, ,, ,, ,, ,,	52.210	,, ,,
Sweet Potatoes	15.678	,, ,, ,, ,, ,,	18.390	,, ,,
Allium Odorum	18.871	,, ,, ,, ,, ,,	22.136	,, ,,
Spinach	14.592	,, ,, ,, ,, ,,	17.116	,, ,,

Principal Items of Commodities, and Their Average Quantity of Consumption—*Continued*

Commodities	Average quantity of consumption of 305 working families with an average of 3.42 male equivalent adults each			
	Old System of Weights and Measures		Market system of Weights and Measures	
	Quantity	Unit	Quantity	Unit
Fish, Meat and Eggs				
Fresh Pork	40.972	Chih or Catty (Chao Ping)	48.069	Shih Chin
Fresh Beef	8.576	,, ,, ,, ,, ,,	10.060	,, ,,
Salted Pork	5.898	,, ,, ,, ,, ,,	6.918	,, ,,
Chicken	2.513	,, ,, ,, ,, ,,	2.948	,, ,,
Silver Carp	3.545	,, ,, ,, ,, ,,	4.158	,, ,,
Fresh Fish ("white fish," "yellow fish," hair-tail, and cuttle fish)	28.130	,, ,, ,, ,, ,,	32.996	,, ,,
Salted "White Fish"	8.455	,, ,, ,, ,, ,,	9.918	,, ,,
Fresh Duck's Eggs	84.932	Piece	84.932	Piece
Condiments				
Soy Bean Oil	58.242	Chin or Catty (Chao Ping)	68.318	Shih Chin
Lard	2.249	,, ,, ,, ,, ,,	2.638	,, ,,
Soy Bean Sauce	62.042	,, ,, ,, ,, ,,	72.775	,, ,,
Salt	32.033	,, ,, ,, ,, ,,	37.575	,, ,,
White Sugar	8.787	,, ,, ,, ,, ,,	10.307	,, ,,

Principal Items of Commodities, and Their Average Quantity of Consumption—*Continued*

Commodities	Average quantity of consumption of 305 working families with an average of 3.42 male equivalent adults each			
	Old System of Weights and Measures		Market system of Weights and Measures	
	Quantity	Unit	Quantity	Unit
Rent				
Two-story House				
(With Court-yard)	.22	Standard Chien or Room (32 cubic metres)	.22	Standard Chien or Room (32 cubic metres)
(With No Court-yard)	.58	Standard Chien or Room (32 cubic metres)	.58	Standard Chien or Room (32 cubic metres)
One-story House	.54	Standard Chien or Room (32 cubic metres)	.54	Standard Chien or Room (32 cubic matres)
Clothing				
Grey Sheetings	5.862	Ch'ih* (Shanghai Standard)	6.253	Shih Ch'ih*
Grey Shirtings	18.415	,, ,, ,,	19.643	,, ,,
Striped Cotton Shirtings	19.418	,, ,, ,,	20.713	,, ,,
Printed Shirtings	8.586	,, ,, ,,	9.159	,, ,,
White Shirtings	4.833	,, ,, ,,	5.155	,, ,,
Native Sheetings	3.465	,, ,, ,,	3.696	,, ,,
Fancy Twills	10.272	,, ,, ,,	10.957	,, ,,
Cotton Flannel	4.772	,, ,, ,,	5.090	,, ,,
Jeans and Drills	3.038	,, ,, ,,	3.241	,, ,,
Raw Cotton	1.261	Chin or Catty (Chao Ping)	1.479	Shih Chin
Cotton Socks	3.948	Pair	3.948	Pair

Principal Items of Commodities, and Their Average Quantity of Consumption—*Continued*

Commodities	Average quantity of consumption of 305 working families with an average of 3.42 male equivalent adults each			
	Old System of Weights and Measures		Market system of Weights and Measures	
	Quantity	Unit	Quantity	Unit
Fuel and Light				
Coal	189.091	Pound	171.543	Shih Chin
Kerosene	88.566	Chin (Hwei Kwan)	93.499	,, ,,
Firewood	117.897	Bundle (Weight about 3 Chin)	117.897	Bundle
Useless Timber	421.035	Chin or Catty (Chao Ping)	493.874	Shih Chin
Bean Stalks	158.100	,, ,, ,, ,, ,,	185.451	,, ,,
Rice Straw	175.079	,, ,, ,, ,, ,,	205.368	,, ,,
Matches	90.052	Box	90.052	Box
Charcoal	.680	Basket (Weight about 25 Chin)	.680	Basket (weight about 25 Chin)
Miscellaneous				
Soap	50.827	Piece	50.827	Piece
Towels	15.244	90 Sheets	15.244	90 Sheets
Cigarettes	231.869	Box	231.869	Box
Wine (Shao-shing)	38.020	Chin or Catty (Chao Ping)	44.597	Shin Chih
Kao-liang	21.432	,, ,, ,, ,, ,,	25.140	,, ,,
Tea	2.429	,, ,, ,, ,, ,,	2.849	,, ,,
Hot Water	4436.469	Ladle (Containing 25 Liang of Water)	4436.469	Ladle

† The number of male equivalents is computed according to the Atwater's Scale.

‡ The quantity shown in the table is the total amount consumed in a year. In computing the monthly general indexes and the monthly group indexes, the quantities, except the number of rooms, are to be divided by 12.

* 1 Shih (Shanghai Standard) = 1.1830 Shih Shih (1 Shih Shih = 100 litres)

1 lb. = 0.9072 Shih Chin (1 Shih Chin = ½ kilogramme)

1 Chin (Hwei Kwan) = 1.0557 Shih Chin

1 Chin (Chao Ping or Shanghai Tien Ping = 1.1730 Shih Chin

1 Ch'in (Shanghai Standard) = 1.0667 Shih Ch'ih (1 Shih Ch'ih = ⅓ metre)

are pursuant to the ups and downs of the price level of other groups. The omission of these items, therefore, would result in no important effect upon the general index numbers. In the second place, we have viewed upon the variety of commodities included in the five groups as integrate units, from each group a number of representative samples are chosen. The quantity of consumption of the sampled commodities would represent not only the weights for the individual items, but also for the integrate groups. The application of group weights or supplement weights can be left out without any significant effect upon the general index numbers. In the third place, in order to facilitate comparison with other indexes, the base period of the index numbers may have to be changed if necessary. If the group weights were applied, the shifting of base period would be encountered with great complications in that it would be necessary to recalculate the index numbers. On the other hand, when group weights are not employed, the base period can be easily shifted by dividing the yearly indexes with the index of the new base period and multiplying by 100.

Collection of Price Data

An accurate index number of the cost of living obviously depends upon the accurateness of the prices as well as of the weights. The cost of living index number is, in fact, a weighted index of retail prices. According to Irving Fisher, errors in prices are from four to as much as eighteen times more important than errors in weights.[1] In the collection of price data, therefore, careful consideration should be made in regard to the following subjects: (1) area covered, (2) period of collection, and (3) uniformity of quality.

(1) Area Covered—The price data are collected by the Bureau through direct inquiry. Investigating agents were sent at regular intervals to retailers in the different districts of the city, with whom previous arrangements had been made. Schedules were filled under the personal guidance of the agents. Greater detail was therefore possible, doubtful points were solved with greater facility, and a higher degree of accuracy was insured than through correspondence. The area covered in the investigation should be determined by the class of individuals to which the index is to be applied. Since the investigation of the Bureau is inclusive of the working class in this city, the area is, therefore, limited to those districts where working families are clustered. In view of the meagre income the laborers are earning, they tend to settle down in the industrial quarters outside the business centers of the city, where cheaper rental obtains, and easier access to the factories is possible. The city of

[1] Irving Fisher: The Making of Index Numbers, Appendix II, § 7, pp. 447-449.

Shanghai with the commercial center of Nanking Road as a focus, may be divided into five districts, the four quarters of the city and the districts of Pootung across the Whangpoo River. Within the five districts a certain number of retail dealers were chosen according to the number of laborers in the respective districts. The streets and roads in the five districts covered in our investigation are as follows:

Eastern District—Yangtzepoo Road, Pingliang Road, Ward Road, Thorburn Road, Linching Road, Wu Hwa Road, Tien Pao Road, Hu K'a Mu Chiao, Wuchow Road.

Southern District—Route Conty, Rue du Marche, Li Ma Road, Hu Chuan Hsien, Pan Soong Yuen Road.

Western District—Zaukadoo, Robinson Road, Annam Road.

Northern Distroct—Hung Fong Road, Ta Tung Road, Pao Shan Road, West Pao Shing Road.

Pootung District—Lan Nyi Doo Street.

Likewise a number of market places were chosen as follows:

Eastern District—Ping Liang Road Market, Wuchow Road Market.

Southern District—Tong Ka Wan Market, Nan Ma Tau Market.

Western District—Zaukadoo, Robinson Road.

Northern District—Kung Hu Road Market, Pao Shing Road Market.

Pootung District—Lan Nyi Doo Street.

(2) Period of Collection.—The period of collection should depend upon the movement of prices. Retail prices are usually more stable than wholesale prices. The prices of the individual items again have their own courses of movement which are not at all uniform. In the collection of retail price data, separate treatment has been made for commodities of varying degrees of price changes. In case of such items as bean oil, sauce, and piece goods, the prices of which remain more or less constant throughout the year, the data were collected on the 15th of every month; while data for commodities of more violent changes, such as vegetables, fish, meat, cereals, etc., were collected once a week, and the monthly averages calculated. The number of quotations for the same commodities depend upon the variation of the quotations obtained from different dealers. For raw cotton, 6 quotations were collected from 6 different dealers, which is the smallest number of quotations for a single item. The largest number of quotations is 20, that for cereals. For the prices of other items, an average of 12 quotations is obtained. The prices employed in the computation of index numbers are arithmetic averages of the different quotations obtained from different dealers.

(3) Uniformity of Quality—In the collection of price data, care should be taken to avoid differences in the quality of the articles. This difference may exist among different establishments at the same date, or at different dates in the same establishment. For measuring the movement of prices over a period, differences of the latter character may, within limits, be more important than those of the former. Differences in quality render difficult the collection of satisfactory price data. In order to overcome this difficulty, the commodities should be of a standard quality, of a certain popular brand. In case of articles of which no particular standard or brand is distinguishable and discrimination depends largely upon personal experience and observation, exact description of each variety should be noted and samples attached to the schedule. Quotations at a previous date should also be put down for reference. Such practices would help to avoid the difficulties involved in differences in quality of articles, priced at different dates. The price data of commodities consumed for the period before 1929 were based upon the account books for the previous years in the establishments investigated. The prices of some vegetables were obtained from certain vegetable dealers and cooks.

In the collection of data on rents, considerations were taken of the relative density of dwelling houses in each district. The average monthly rent for a standard "chien," or room, which occupies a space of 32 cubic meters, was computed.

Formula of Index Numbers

In a test made by Prof. Irving Fisher, index numbers covering the period from 1914 to 1918 were computed by 134 different formulæ for the prices and quantities of 36 commodities selected from the list of 1,474 commodities included in the investigation conducted by the War Industries Board. These indexes were rectified by the time reversal test and the factor reversal test to find which is the best. As a result of the tests, the simple geometric average was found to be the best among simple formulæ, and among weighted formulæ, the "ideal formula" is the best. Algebraically, if p_o is the price of a given commodity at the base period, q_o, the quantity of the commodity at the base period, p_1, the price at the given period, q_1, the quantity at the given period, and Σ, the sign for summation, the ideal formula is,

$$\sqrt{\frac{\Sigma\, p_1\, q_o}{\Sigma\, p_o\, q_o} \times \frac{\Sigma\, p_1\, q_1}{\Sigma\, p_o\, q_1}}$$

The "ideal formula" is correct within a hundredth of one per cent, but this formula presents the difficulty in application. The weights for the given period, that is, q_1, have to be changed every year, and weights for

the base period, that is, q_o, should also be provided. Such complete data are not always available under ordinary circumstances. As a substitute for the "ideal formula," the weighted aggregative is suggested, which will yield somewhat less accurate yet quite reliable results. The weights employed might be the quantity of consumption at the base period, or that of the given period, or the average of two or more years, or merely guessed round-weights.[1] In our investigation, the base period of the index numbers and the period during which the family budget enquiry was conducted are not the same. We deem it more appropriate to use the quantity of consumption during the period of inquiry as the constant weights. Thus the formula would be,

$$\frac{\Sigma p_1 q_c}{\Sigma p_o q_c},$$

where q_c is the quantity at the period of inquiry, which is the constant weight, and p_o and p_1 are respectively the prices at the base period and the given period. This formula differs from the weighted aggregative $\left(\frac{\Sigma w p_1}{\Sigma w p_o}\right)$, which is numbered 9051 according to Prof. Irving Fisher, in that it substitutes the actual quantity of the commodities for the arbitrary weights.[2]

The following merits may be claimed by this formula:

(1) Accurateness of results—This formula fulfills the time reversal test and is free from bias. It is usually correct within three per cent.[3]

(2) Speediness of calculation—It ranks second in speed of calculation among all the formulæ.[4] It is not necessary to calculate the price relatives but only the sum of the products of the average prices and quantities.

(3) Easy comprehension—This formula gives the ratio of the values at two different periods. In the present case, the index numbers computed would be able to afford a clear indication of the percentage changes between the cost of living of the base period and that of the given period.

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[1] Irving Fisher: The Making of Index Numbers, Third Edition, 1927, Chaps. VI and XVII.

[2] This formula is sometimes written $\frac{\Sigma p_1 q_o}{\Sigma p_1 q_o}$, which is numbered 53 according to Prof. Irving Fisher. Since the habit of consumption changes slowly, if the period of inquiry is not too remote from the base period, the result of the inquiry might be considered as weights for the base period.

[3] Irving Fisher: The Making of Index Numbers, Third Edition, 1927, p. 362.

[4] Ibid, p. 325.

(4) Facility in shifting of base period—For convenience of comparing the index numbers with other indexes, the base has sometimes to be shifted. This formula possesses over all other formulae the advantage of great facility in shifting the base period. It is only necessary to divide the index numbers with the index of the new base year and multiply the result by 100.

Consumption habits, however, change steadily from time to time. A formula which is weighted according to fixed quantities of commodities would no longer be adaptable when a marked change is shown in both the items and the quantities of consumption. In the Third International Conference of Labor Statisticians, held in Geneva in 1926, a resolution was passed suggesting a new investigation of the family budgets in every ten years as a remedy for errors arising from the changing habits of consumption.[1] The same error of the formula might also be checked up by the application of the "ideal formula."

Base Period of Comparison

The base period might be either the prices of a short period of one month, or the average prices over a period of several years. However, the period of one year is most popularly employed. The base period provides a norm with which the figures of the subsequent years are compared. Great care, therefore, should be taken in selecting the base year.

A good base year for comparison should be able to fulfill the following requisites: First, it should be a normal period with respect to economic activities, and free from all abnormal changes and upsets; secondly, it should not be so remote that it renders the impressions vague and indefinite; and lastly, it should be consistent with the base periods of the majority of index numbers so that comparisons between different indexes could be readily effected. According to the resolutions of the Second International Conference of Labor Statisticians, held in 1925, the year 1930 was recommended as the base year of cost-of-living index numbers. This recommendation has not, however, been put into practice as yet. The year 1930 turned out to be an abnormal one, with the dark shadow of business depression cast over the entire industrial and commercial world. In China, further turmoils resulted from the sudden jump in the value of gold; high level of prices, declining purchasing power of the general public, depressed business activities, and other phenomena lent even a darker color to the picture. In view of such conditions, the appropriateness of the year 1930 as the base period is highly doubtful. After prolonged

[1] International Labor Office: The Third International Conference of Labor Statisticians, Geneva, 1926, p. 20.

deliberations, it is decided to take the year 1926 as the base. The following arguments are advanced in favor of this year:

(1) In 1926, the economic condition of this city has been proved to be quiet and peaceful. Take the price of rice for illustration. The price of glutinous rice remained between $12 and $14 per picul throughout the year, and that of *sien* rice was kept constantly at about $12 per picul (See Table 2). No political changes were staged which tended to influence the economic conditions to any considerable extent. Also, the year is recent enough to afford a good basis of comparison.

(2) The years 1913 and 1914 have been adopted in many an index number as the base period, as they would provide a comparison of the post-war price level with the pre-war level. However, these years are now deemed too remote to be a proper basis of comparison. Since the adoption of 1926 instead of 1913 as the base year for the wholesale price index numbers compiled by the U. S. Bureau of Labor Statistics, and through the advocacy of some authorities on that adoption like Prof. Irving Fisher, post-war bases have been adopted in many countries. Among these are the Wholesale Price Index Numbers compiled by the Bureau of Statistics of Canada, and the Price Indexes compiled by the Milan Chamber of Commerce, Italy, which take 1928 as base year, and the Wholesale Price Index Numbers appeared in the "Economist," which takes 1927 as base. In China, the North China Wholesale Price Index Numbers and the Cost of Living Index Numbers of Laborers in Tientsin, both compiled by the Nankai University Institute of Economics, take 1926 as the base; the cost of Living Index Numbers of Peiping compiled by the Social Research Institute, Peiping, takes 1927 as the base, and the Cost of Living Index Numbers of Cotton Mill workers in Shanghai, compiled by the National Tariff Commission, takes 1926 as the base. For the sake of comparison with the indexes both at home and abroad, general comformity to 1926 as the base is desirable. We have, therefore, based our index numbers upon the year 1926.

(3) Since the winter of 1929, the value of gold has soared. In December, 1929, a gold bar was priced at Tls. 440.29 and the average price for the year 1929 was Tls. 387.10. But in December, 1930, the price jumped to Tls. 643.31, and the average for the year was Tls. 548.46. If no remedy for the declining value of the white metal is effected, and if India continues its exportation of silver, the condition will grow steadily worse. Thus when the year 1926 is taken as base, the effect of the upward swing of gold price upon the cost of living is to a certain extent traceable.

In view of the above arguments, the year 1926 is adopted as the base year for our index numbers. Moreover, as the formula we are using claims the advantage of facility in shifting the base, this year may be readily changed as conditions require.

III. TREND AND FLUCTUATIONS

An explanation of the meaning and purpose, as well as the method of compilation of cost-of-living index numbers has been made in the previous chapters. The present chapter is intended as an analysis of the changes that took place in the period of six years, from 1926 to 1931. The inquiry of the Bureau covers 305 families and extends from April 1929 to March 1930. The average expenditure per annum of each family is $454.38. This amount is distributed among the five groups as follows:

Food	$241.54	53.2%
Rent	37.83	8.3
Clothing	34.01	7.5
Fuel & Light	29.00	6.4
Miscellaneous	112.00	24.6
Total	$454.38	100.0%

Under these groups and sub-groups, 60 items of consumption are included, which are distributed as follows: food, 31 items; rent, 3 items; clothing, 11 items; fuel and light, 8 items; and miscellaneous, 7 items. Group indexes are computed to show the changes in the individual groups and a general index to show the integrate movement. The formula employed is the weighted aggregative. The base year is 1926 which equals to 100. Indexes are computed each month covering the period from January 1926 to December 1931. Subsequent indexes will be published monthly. The group changes as well as the general trend of movements will be treated separately in the following pages.

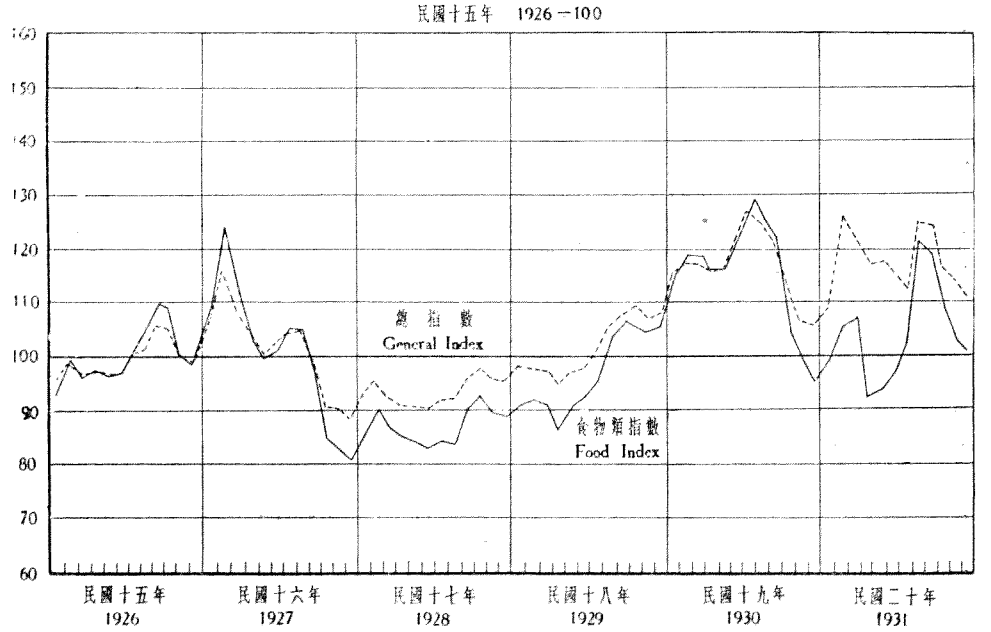
The Food Group The food index, as shown in Table 1[1] and in Chart 2, corresponds well to the general index. Taking the year 1926 as the base, the 1927 index is 100.71, or 0.71 point above the base line; the 1928 index is 87.32, or 13.39 points below the 1927 index; the 1929 index is 97.56, or 10.24 points above that of 1928; the 1930 index is 114.99, or 17.43 points above that of 1929; and the 1931 index is 104.10, or 10.89 points below that of 1930. The bottom index of 81.00 was reached in December 1927 and the peak index of 127.92 in July 1930, representing a difference of about 47 points. During the whole period the indexes of 35 months are above and those of 37 months are below the level of 100.

[1] For Tables, see Chinese section.

Sharp ascendency was seen in February, 1927, and the first nine months of 1930. The 23 month period, from September, 1927, to July, 1929, witnessed the index constantly below the base line. This tended to pull the general index down considerably.

圖二 上海市工人生活費食物類指數與總指數圖

Chart 2. The Food Index



The monthly trend of the food index may be analyzed as follows. The first half of the year 1926 saw the index constantly below 100, the January index of 92.58 being the lowest during that period. In the second half of the same year, the index rose above the base line and reached as high as 109.83 in September. Then again in December, it declined to 99.07. In January 1927, the index suddenly jumped to 109.63, and another jump in February raised it to 124.23. The movement, however, soon turned to a downward tendency. In March, it dropped to 111.58, in April to 104.41, and in May it receded below 100, reaching as low as 99.84. In this short period of four months a margin of over 24 points was shown. Though a reactionary rise occurred in June, the index again dropped below 100 in September. The rapid decline in the price of rice brought the index to a sharply downward trend, and finally in December 1927 the bottom point of the six years was touched. The upward move shown during the first two months of the year 1928 proved to be merely a weak reaction. The downward trend again dominated. Then in September the index

started to move upward and in October it was 93.18. For the rest of the year and the first half of 1929, the index wandered somewhat with 91 as its center point. Until as late as July, it started on an ascending track. In August it went beyond 100, and in October proceeded to 109.85. In 1930, the ascending trend was even more vivid. January saw the index at 114.66, and February at 118.38. During April and May, the index remained steady, but in June the upward move was once more prominent. Finally, in July was seen the coming of the peak, 127.92. After that the decline began. During September, the index was on a rapidly descending course. In November it slid below the level of 100, and reached as low as 94.76 in December. In 1931, the index was gradually ascending, January saw the index at 98.79, and March at 106.85. In April, a sudden drop brought the index down to 92.32. Beginning from May, a steadily upward move was shown, and the index reached 121.07 in August, which is the highest point of the year. September again saw the index declining, and the year ended with the index at 100.38.

Among the various items in the food group, rice plays the leading rôle. The movement of food index usually follows closely the ups and downs of the price of rice. The enormous supply of rice which is needed to feed the over three million population of Shanghai is obtained largely from Changshu and Wusih, the largest rice markets as well as the largest producing regions in Eastern China. Also big supplies of rice are shipped directly from other rice-producing towns in Kiangsu and Anhwei by means of native junks. In spite of such rich resources, the supply of rice has often been found insufficient and large quantities of foreign growth have to be imported every year.

The market price of rice in this city would, therefore, depend largely upon the abundance or failure of crops in these rice-producing regions from which the supply is obtained. The upward move of the food index in the Autumn of 1926 was due to the fact that a bad harvest led to an increase in the price of rice to as high as $17 per picul. A second upward swing was seen in February 1927, when the price of rice remained well above $15 per picul and the prices of vegetables also greatly increased due to their meagre supplies. After the plentiful crop in September, however, the food index fell below the level of 100, and remained so throughout the period from September 1927 to July 1928. At the end of the year 1928, the price of the rice was about $11 per picul. Though a slight rise was shown during the period from January to July of the year 1929, the increase was only a little over one dollar per picul. In August, the price suddenly jumped to $15.21 per picul. This was due to the effect of the bad harvest during that Autumn. The supply from other cities was declining, and the stock in this city began to get short. What made the

condition worse was that some of the rice-dealers took advantage of the panic situation and sought to enrich themselves by manipulation, and some even went so far as to export large quantities of rice. The ascending tendency thus became irresistible. In 1930 the price rose from $15 per picul to above $18, and that of high quality rice from $19 to above $20, regardless of the efforts of the authorities to keep them down. According to the investigations of the Bureau, the price of the second grade unglutinous rice during June, July, and August of the year 1930 was as high as $21 per picul. The food index consequently rose to 127.92 in July. Its effect was dreadfully felt by the general public. Petitions were sent to the authorities asking for a remedy for the embarrassing situation. Cheaper prices were offered to poor families through the effort of administrative authorities and charitable institutions. A total of 100,000 piculs of foreign rice was imported to keep the price down. At the same time, the heavy harvest in the Autumn of the same year naturally provided the city with a plentiful supply of rice. Thus the price of the second grade unglutinous rice slid quickly to $15.12 per picul in October, to $13.48 in November, and to $12.45 in December. The food index was eventually brought down to below 100. The first half of the year 1931 witnessed a continual decline in the price of rice, which is due largely to the heavy harvest last autumn. The price of second grade unglutinous rice was $12.32 per picul in January, $11.73 in February, and as low as $10.09 in April. During the months of May, June, and July, though they were usually a period of scanty produce, no marked ascendency was shown in the price of rice. The average prices of second grade unglutinous rice per picul were $10.51 in May, $10.70 in June, and $10.82 in July. In August and September, the country was invaded by flood in many provinces. The great loss to farm produces brought the price of rice sharply up to $14.03 per picul in August and $14.04 in September. Consequently, the food indexes for the respective months jumped up to 121.07 and 118.90. The price of rice, however, was soon kept down by the importation of foreign rice and of large quantities of wheat from the United States and Soviet Russia. In October, the price was already as low as $12.70 per picul. The end of the year saw the price of rice at $11.38 per picul, which is lower than that of the same period the year last.

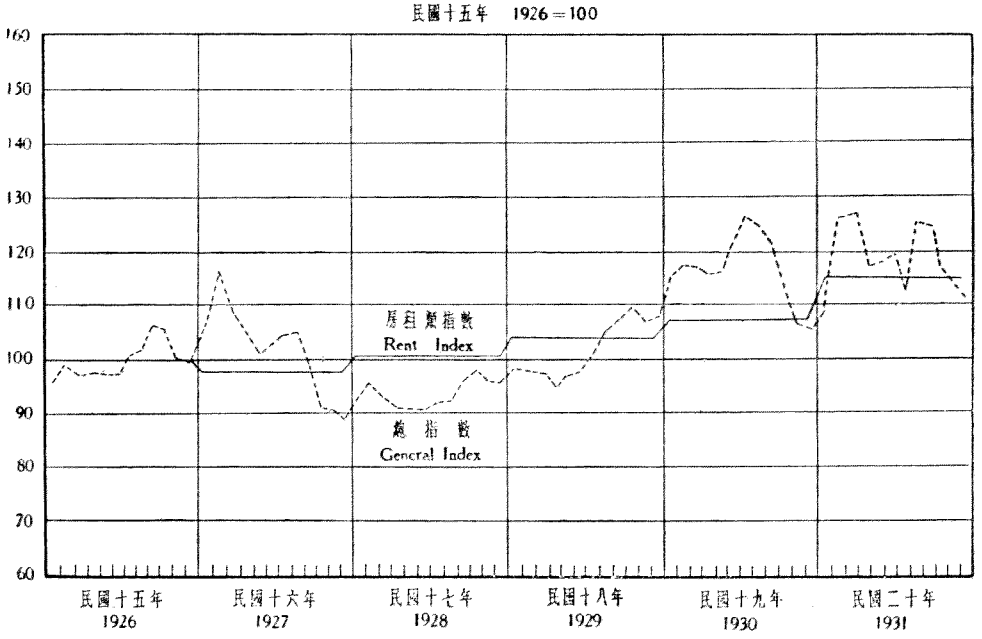
The Rent Group

The movement of the rent index is shown in Table 1 and the graphical representation in Chart 3. Taking the average of the year 1926 as 100, the index number for 1927 is 97.98, which is a little below the level of the previous year. During that year the Nationalist army captured Shanghai, and the influence of the warfare had caused many residents in the Chinese districts to take refuge in the

foreign Settlements. A great number of houses were thus left vacant. The land-owners had to reduce the rent in order to attract tenants. This explains the downward move of the rent index in 1927. By the next year the war was over, and peace and order again reigned in the city. However, the rentals in the quarters of the city, where the working families clustered, were not much increased in spite of the growing prosperity. The rent index for 1928 recovered to the level of 1926, but did not go much beyond it. In 1929 and 1930, a slight advance was shown, and the index increased a little over 3 points each year. The average rent index of 1931 is 114.46, which shows an increase of 7.50 points over that of 1930. The realty market has been proved to be extraordinarily active in 1930. The reported transactions for the year amounted to Tls. 130,000,000, and the value of building contracts to Tls. 69,000,000. The total value of real estates increased by the amount of Tls. 1,000,000,000. Under the influence of the tremendous increase in land value, the year 1931 followed with a corresponding increase in rentals. The rent index in 1931 was, therefore, not exempted from an upward swing.

圖三 上海市工人生活費房租類指數與總指數圖

Chart 3. The Rent Index



In the collection of data on rents, tax levied on houses was also taken into consideration. The house tax was not definitely prescribed before 1929. In Chapei, a kind of general tax was imposed on the residents.

Such a general tax covered all levies connected with the construction of roads, waste-disposal, street lighting, etc. The tax amounted to 10 per cent of the rent on business properties and warehouses, and 6 per cent on residences. It was collected quarterly. Such a general tax was in fact in the nature of tax on houses. In Nantao, it was known as the "Public Welfare Tax" which amounted to from 7 to 12 per cent of the rent on business property, and 5 per cent on residences. This sum was first collected by the Nantao Revenue Collecting Office, but since 1924 by the Municipal Office. In addition to this, a rate of 15 per cent of the rent was collected by the District Office. Thus, the inhabitants in Nantao were burdened with a dual taxation. Since the inauguration of the City Government of Greater Shanghai in 1927, this dual taxation was abolished, and a general tax similar to that collected in Chapei was legalized. But as the general tax was imposed on the tenants only, thus exempting the land-owners from any such duties, which practice was quite evidently unjustifiable. Moreover, the construction of public works necessitated an increase in revenue. The rates were, therefore, increased to 10 per cent on residences and 14 per cent on business concerns, which were to be borne equally by the land-owners and the tenants. Thus, though the rates were nominally increased, the tenants found themselves exempted from a part of their old burden. When the new rate was promulgated in the winter of 1928, objections were raised by the land-owners. However, the opposition was soon overcome, and in the spring of 1929, the new rule was enforced with success.[1] So much for the system of taxation in the Chinese districts. In the International Settlement, an amount of 16 per cent of the rent was collected of which 2 per cent was temporarily imposed, and since July 1, 1930, the additional 2 per cent was not collected. Tax in the Settlement is borne entirely by the tenants.[2]

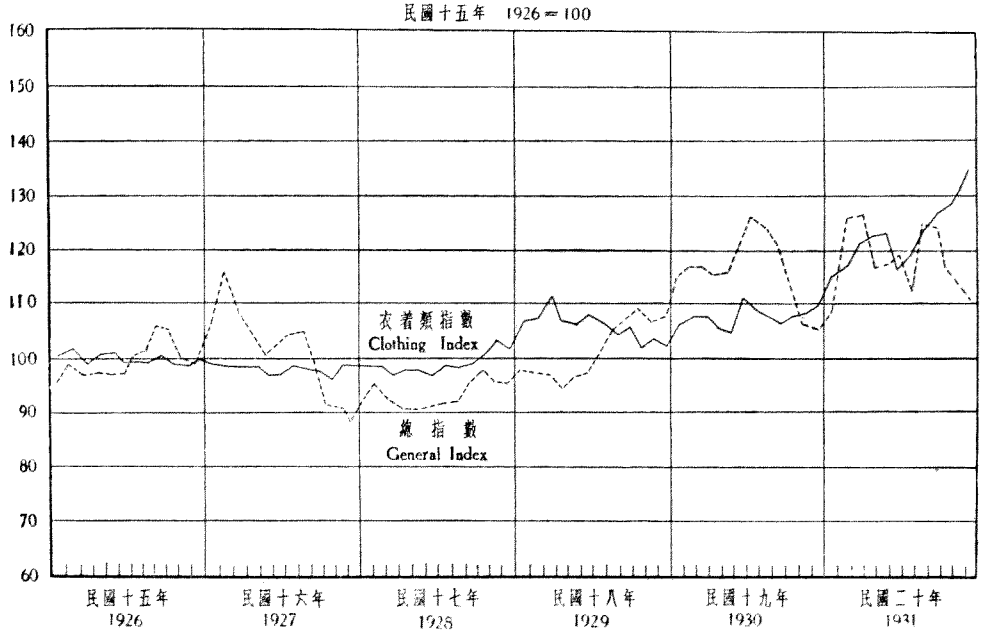
The Clothing Group The clothing indexes for 1927 and 1928 are a little below the base index. The 1929 index is 106.04, which is 6.40 points above the index of 1928; that of 1930 is 108.18, or 2.14 points above that of 1929; and that of 1931 is 123.58, or 15.40 points above that of 1930. The peak index of 134.60 was reached in December 1931, and the bottom index of 97.16 touched in October 1927. The difference is 37.44 points.

The clothing index was quite close to the base line of 100 until October 1928. During the period, the highest point was 102.18 in February 1926, and the lowest, 97.16 in October 1927, representing a narrow

1 上海市財政局十六年及十七年度業務報告.
2 一九三〇年上海公共租界工部局年報

圖四 上海市工人生活費衣着類指數與總指數圖

Chart 4. The Clothing Index



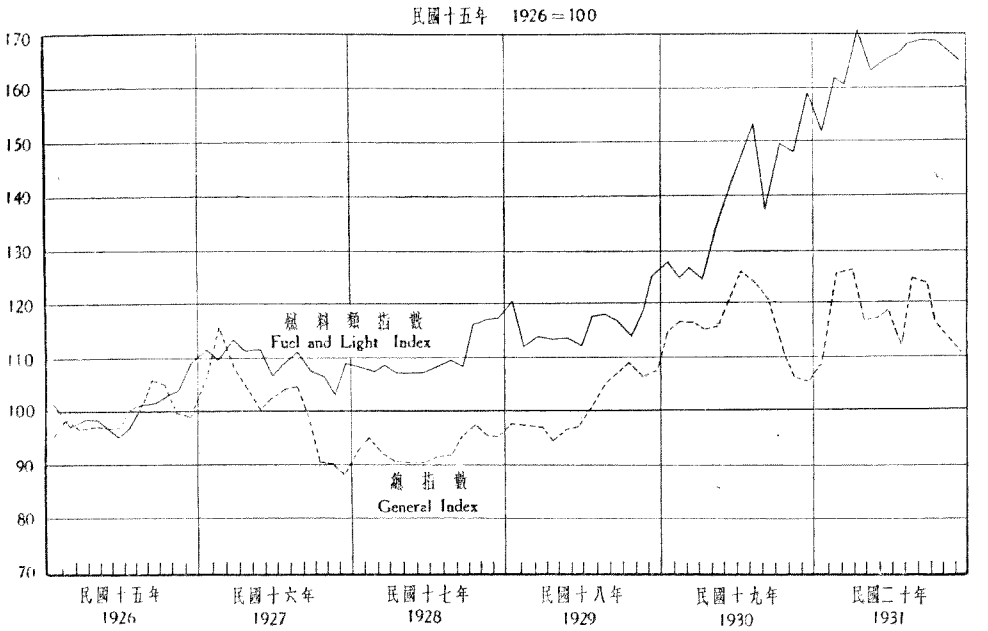
margin of about 5 points. In October 1928, the index began to rise above the base line, and reached the point of 101.54. Then the index ascended steadily, till it reached 110.90 in March 1929. After that came a period of depression in the clothing business, and the index began to recede. During 1930 the condition of this trade was not much improved, until the latter part of the year when the market began to be active, and a slight increase was shown. At the end of the year the index was 109.95. In 1931, the index continued to rise due to the rapid ascendency of the value of gold bar. In the latter half of the year, the boycott of Japanese goods was intensified by the Van Pao San Incident and the Japanese occupation of Liaoning on September 18. Japanese cotton goods, which used to be the leading item of imports from Japan, began to disappear from the market, and both our home produce and imports from the West were greatly in demand. This pulled the prices of cotton goods steadily up inspite of the abundant crops in many cotton producing countries. The clothing index thus rushed up to 124.41, and finally, at the end of the year, reached the peak index of 134.60.

The Fuel and Light Group

The fuel and light index shows a steadily upward tendency throughout the whole period. The index number of 1927 is 9.06 points above the base index of 1926, that of 1928, 1.17 points above that of the previous year; that of 1929, 7.38 points; that of 1930, 22.86 points; and that of 1931, 24.15 points; representing an average increase of about 15 points each year. The lowest index is that of June, 1926, which is 95.53 points, and the peak is that of April 1931 which is 170.65. A wide margin of 75.12 points between the high and low marks is thus presented.

圖五 上海市工人生活費燃料類指數與總指數圖

Chart 5. The Fuel and Light Index



At the beginning of the period, the index was moving downward. The months of May, June, and July of 1926 form a slack period for fuels, wherefor the index was at about 96. Then an increase in the prices of kerosene, firewoods, and bean stalks brought the index upward. In December, firewood and charcoal began to be generally demanded, the index thus rose to 108.83, which is the highest point of that year. From January to August 1927, the index was high, fluctuating around 110. In September the price of kerosene and firewood began to decline and the index moved slightly downward. The index for the whole year of 1927 was 9.06 points above that of the base year. In 1928, the index remained around 108 till as late as the month of September. In October, the rapid increase in the prices of firewood and of rice straw brought the index up

to as high as 116.32. The trend was steadily upward throughout the rest of the year. The average index for 1928 was 110.23, an increase of 1.17 points over that of the previous year. During January 1929, owing to the cold weather, kerosene and charcoal were widely demanded. The index consequently rose to 120.23. Later on, notwithstanding the continual ascension of the price of kerosene, the rapid decline in the prices of firewood, rice straw and bean stalks pulled the index down to 111.91 in February. Until June the index remained at about 112. In July it jumped to 118.28. September and October found but little change in the index. In December the increase in the prices of firewood and useless timber brought the index way up to 125.71. An increase of 7.38 points was shown in the average of 1929 over that of 1928. The year 1930 saw the fuel and light index veer steeply upward. In January a slight increase of over 2 points was seen. During the next three months the upward movement was not so active. Beginning from May, however, the price of kerosene turned on an ascending trend, due to the influence of the high price of gold. Kerosene was sold at $0.074 per Shih Chin 市斤 in April. In May the price increased to $0.099; it continued to pile up to $0.130 in July and $0.143 in December, which latter figure is alomst double the price in April. As kerosene constitutes a very essential item in the fuel and light group, the group index naturally tended to ascend despite the smooth course of movement shown in the prices of the other items. In May the index went up to 134.26 and in August to 152.88. A sharp decline was shown in September. But in October the index started upward again. In December the upward move was further intensified by the general increase in the prices of firewood, useless timber, rice straw, etc., and the index reached 158.86. An increase of as high as 22.86 points was shown in the average index of 1930 over that of the previous year. The upward swing of the fuel and light index was even more significant in 1931. Though the index receded to 152.54 in January due to a drop in the price of kerosene, it soon advanced above the level of 1930 in February. Since the enforcement of the new tariff rate on imported matches, the price of a box of matches rose from the average of 9 cents to 13 cents. At the same time, the high exchange rate brought about a rapid increase in the price of kerosene. In April, the record price of $0.169 per Shih Chin was seen. It was in April, therefore, that the index of the fuel and light group was brought up to its highest. In May and the following months, the kerosene price began to recede, and the index was 165.85 in July. In September, October, and November, a rise in the prices of rice straw, bean stalk, and charcoal again pulled the index up to over 169. In December, however, a general drop in the prices of fuel and light caused the index to swing back to 164.84, which is yet 8 points above that of same month the year last.

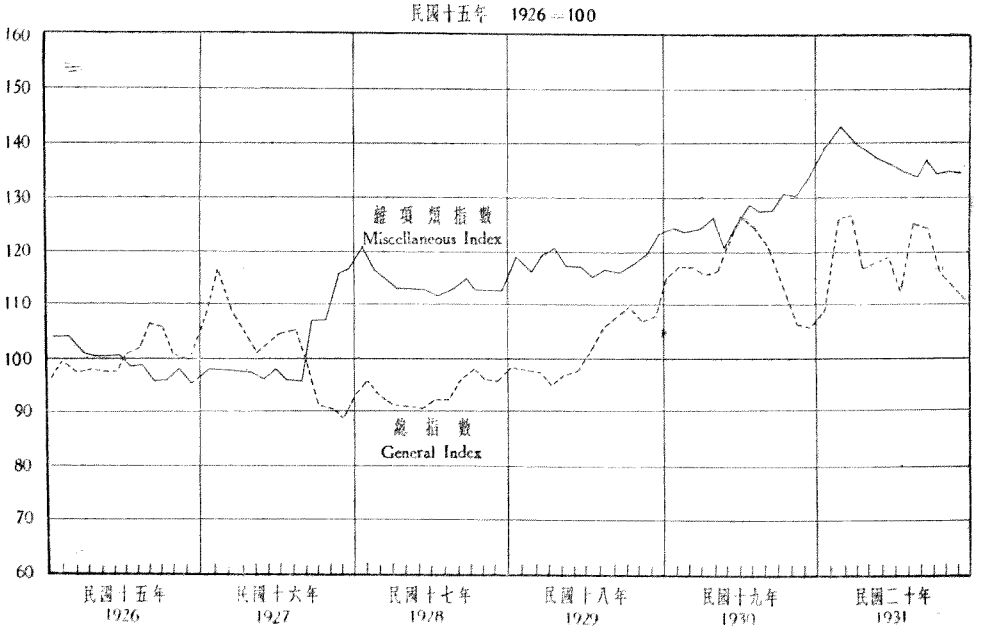
The Miscellaneous Group

The index of the miscellaneous group shows a continually upward tendency of movement, though the course of ascendency is not so steep as that of the fuel and light index. The 1927 index is 102.23 or 2.23 points above the base. The 1928 index is 114.00, representing an increase of 11.77 points over that of the previous year; the 1929 index is 117.78, an increase of 3.78 points over that of 1928; the 1930 index is 126.84, an increase of 9.06 points over that of 1929; and the 1931 index is 138.37, an increase of 11.53 over that of 1930. The peak index is the 142.97 of February 1931; and the lowest index is the 94.96 of December 1926, representing a difference of 48.01 points.

In the first half of the year 1926, the miscellaneous index was above the base line. Then in the latter part of the year it began to recede below the base, and touched the bottom point of 94.96 in December. During the period from January to August of the year 1927, the index remained along the level of 97 points. In September the index was influenced by the increasing prices of cigarettes and wine and it increased to as high as 107.80. After this it continued to rise until it reached 121.37 in January 1928. In February it began to decline and for the rest of the year in the index remained at about 113. In January 1929 the coming of the lunar New Year brought the index up to 119.43. After that, the movement of the index was confined within the range of 115

圖六 上海市工人生活費雜項類指數與總指數圖

Chart 6. The Miscellaneous Index



and 120. In December 1929 the exchange rate of coppers dropped to 279.2 coppers to a silver dollar. Consequently, when converting the amount of coppers spent in purchasing cigarettes, hot water, etc., into silver units, prices were elevated considerably. The index for the month was as high as 123.59. During 1930 the trend at first was fairly stable. In July it rose to 129.26. August was a period of slight decline, when the index fell back to 128.10. October again witnessed the index rapidly ascending. In December, the low rate of copper coins again tended to intensify the ascendency, and forced the index up to 133.91. In 1931, the rate of copper coins continued to move downward, the average rate for the year was 269.2 coppers to a dollar. The index quickly rose to 139.63 in January and finally to the peak of 142.97 in February. During that period, the prices of soap and cigarettes were elevated due to an increase of taxation, and the price of toilet paper was likewise increasing. The index then began to resume its decending course. The March index was 140.12, and the August index was as low as 134.35, which is the lowest of the year. The September index was brought up to 137.40 by an increase in prices of soap, cigarettes, and wine. The rest of the year saw the index fluctuating around 135.

General Trend

Taking the average of the year 1926 as 100, the general index for 1927 is 101.09, an increase of 1.09 over that of the previous year. The index for 1928 is 93.21, a decline of 7.88 points as compared with the 1927 figure. The year 1929 saw an increase of 8.77 over 1928, and 1930 a sharp rise of 14.81 over 1929. The 1931 index is 113.82, which is 2.97 points lower than that of the previous year. The peak index, 126.56, was reached in March 1931; and the lowest, 89.06, occurred in December 1927, indicating that the widest range of fluctuation was 37.50 points.

When the monthly trend is analyzed in greater detail it is found that the indexes for the first half of the year 1926 are all below 100, with its lowest point at 95.48, the index for January. In July of the same year, the indexes therefore climbed steadily up above the level of 100 and reached its peak, 106.46, in September. At the end of the year the general index began to drop, and by December it was as low as 99.57. The year 1927 began with a steady rise of the index to the new peak of 116.67 in February. Then it turned on a quickly descending trend. In May, the index declined to as low as 100.18, a drop of about 16 points in the period of four months. After that, the index raised slightly. Beginning in September of the same year, a heavy crop resulted in a rapid decline in the price of rice. The prices of fuels also fell. Thus, in September, the index once again started on its steep descending course and slid below the base line to 99.16. At the end of the year, the lowest index during the

five years, 89.06, was reached. At the beginning of the year 1928 an upward tendency was shown in the general index, till it reached 95.38 in February. After that the general index assumed a smooth tendency, and was at about 91. In September, the index tended to increase somewhat. In October it was 97.89. Then the index fluctuated between 95 and 99. In July 1929 the index rose above 100, and in October it increased as high as 109.84. At the end of the year, a decline of 2 or 3 points was shown, and the year closed with the index at 108.28.

The year 1930 opened with a general increase in the prices of the food group owing to the occurrence of the close of the lunar year. Also, a rapid increase occurred in the price of kerosene due to the upward swing of the price of gold. This ascending trend was furthered by price increases in the clothing and miscellaneous groups. As a result during January the index jumped to 115.30, During May, it was fluctuating around 117. In June, a maddening increase in the prices of rice and kerosene was again witnessed, the price of kerosene being nearly three times the lowest price in the five years. The index rushed up quickly to 126.38 in July. After that the heavy crop in the Autumn caused a big drop in the prices of rice and flour, and a sudden decline was also seen in the prices of kerosene and firewood. The index, therefore, again rapidly descended. By December 1930, the index was already as low as 105.23. Then a steady increase in the price of fuels and of the miscellaneous items retarded the downward trend to a certain extent. The gradual rise in the price of rice in January 1931 brought the index up to 109.07. February witnessed a sudden jump in the price of rice and a sharp ascendency of the miscellaneous index to its peak. The general index was consequently elevated to 126.29. In March, a general increase was shown in all groups, particularly food and clothing; the general index climbed one step further and reached the peak of 126.56. In April, though a peak index was seen in the fuel and light group, the sudden drop of food index by 14 points forced the general index down to 117.23. The following months showed no marked changes. In August, however, the index made 13 points in a jump and reached 125.25. This was due largely to the influence of the flood which kept the food index up, and the boycott of Japanese goods which elevated the clothing index, and also to a simultaneous rise of the fuel and light index. From September on, regardless of the general elevation in the group indexes, the steady drop of the price of rice drag the general index down to 124.20 in September, 117.01 in October, and 113.66 in November. Though the clothing index was at its highest in December, the year concluded with the index at 111.39.

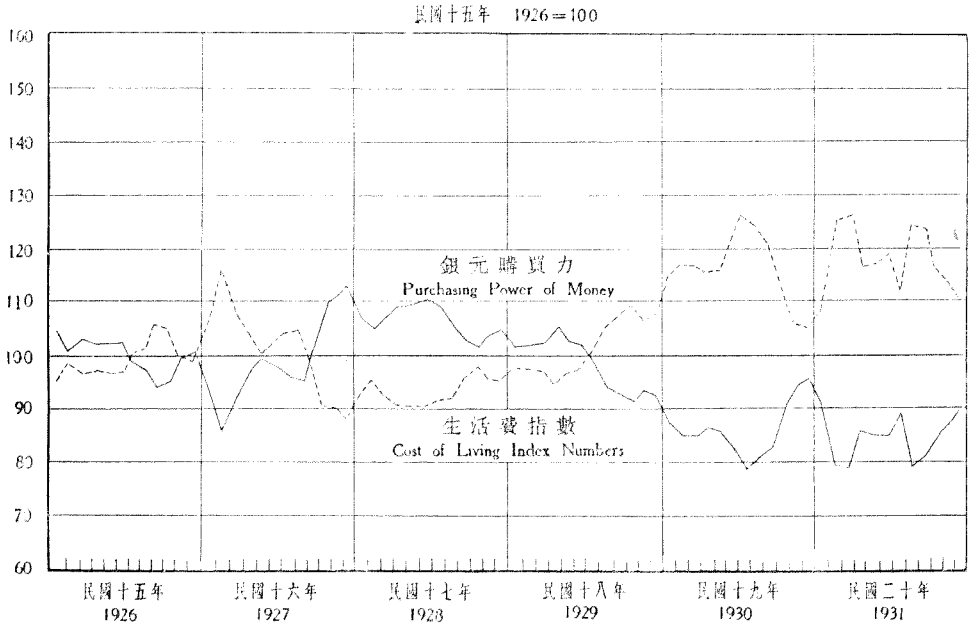
Throughout the six years, the index was below the level of 100 during 29 months, and above the level, the remainning 43 months. This shows a distribution of the indexes above and below the base line at the ratio of three to two. At the beginning of the period, the trend did not show any marked changes. During the 22 months from September 1927 to June 1929, the index was constantly under 100. This was due largely to the effect of the decline in the price of rice. During this period, the lowest index of 89.06 was reached in December 1927. After the middle of the year 1929, the index began to ascend rapidly which was due, first, to the effect of a poor crop causing the price of rice to increase greatly, and, secondly, to the influence of the depreciating value of silver giving rise to an upward swing in the prices of fuels and miscellaneous items. The high index of 126.38 occurred in July 1930. After August, 1930, the rapid drop in the price of rice tended to drag the index down to a considerable extent. This tendency to decline continued to the end of the year. The index again went up in 1931 until it reached the peak index of the six years in the month of March. Since then, though a sudden rise once appeared in August, the trend was steadily downward, which tended to keep the average index below the level of 1929 and that of 1930.

Among the group indexes, the food group exerted the greatest influence upon the general trend. The food index was often below the general index. In general, the composite index often followed closely the tendency of food prices. The price level of the group of fuel and light was often above the general index, but its effect was not so marked. At the beginning of the period, the miscellaneous group was below the general level, but later on, it tended to rise above it. The rent and clothing index assumed a smooth and regular course of movement both above and below the average level (See Chart 1).

In Chart 7, a dotted line is drawn to represent the purchasing power of money, and in Table 1, a separate column is designated for the same. The purchasing power of money and commodity prices are reciprocals of each other. A rise in one would mean a corresponding fall in the other. Therefore, the reciprocals of the wholesale indexes represent the purchasing power of money in the wholesale market, and similarly, that of the retail indexes, the purchasing power of money in the retail market. The dotted line in Chart 7 represents the trend of movement of the purchasing power of a silver dollar in the retail market of Shanghai. It moves exactly in the opposite direction of the price index. For instance, the index for January 1927 is 106.96, the reciprocal of which is 93.49, the latter therefore represents the purchasing power of a dollar in that month. In other words, the purchasing power, or the real value, of a 1926 dollar is worth only $0.9349 in January 1927. The values of commodities may

圖七 上海市工人生活費指數與銀元購買力圖

Chart 7. Cost of Living Index Numbers and Purchasing Power of Money



be judged from two angles. From the point of view of the commodity, it is indicated by the price; from the point of view of the dollar, it is represented by the purchasing power. They are ultimately the same. Thus, when the purchasing power is high, we have a low cost of living, and conversely when the purchasing power is low, we are faced with the difficulties of a high cost of living.