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On the Frequent Autumnal Pressure in the Money Market, and the Action of the Bank of England. By W. Stanley Jevons, M.A., Cobden Professor of Political Economy in Owens' College, Manchester.

#### [Read before the Statistical Society, 17th April, 1865.]

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#### I.—Preliminary Remarks.

At the beginning of last October (1865), the commercial world of England was disturbed by a remarkable withdrawal of coin from the Bank of England, causing a great decrease of the loanable capital, and necessitating a corresponding rise in the terms of discount. The commercial editor of the "Times," writing on Saturday evening, 7th October, said—

"The Bank of England this morning made a further advance of " I per cent. in their rate of discount, the charge being now 7 per "cent. The rise during the week has therefore been 2½ per cent., a " movement unprecedented in so short a space. "At no former period, except during panies or runs from political or "commercial disasters, has it ever been found requisite to advance "the rate of discount in the face of a prolonged favourable condition " of the foreign exchanges. For four months there has almost unin-"terruptedly been a favourable balance week by week in the operations " of the bullion market, as regards exports and imports, and during "that time the home community have absorbed not only the surplus "thus left, but about 3,000,000l. from the Bank, in addition to an extra " one or two millions in notes. As the amount of currency used for "internal purposes rarely experiences any great or permanent fluctu-"ation, the Bank directors were entitled to assume week by week, "as the absorption became more remarkable, that a turn must be "rapidly witnessed, and that the market would then be oversupplied "with the amounts that had been so strangely removed from it. "But there was a point below which, whatever might be their con-"fidence as to the supply of money actually available in the country,

"they could not allow their reserve of notes to fall, and that point having been reached ten days ago, the present measures commenced. "And here, again, nothing but abnormal results were witnessed. "With a rise of half per cent., the demand still increased, and an "additional movement of 1 per cent. seemed to have no restrictive "effect."

The commercial press were in considerable perplexity as to the cause of this demand for money. The "Times" of the morning of 7th October, had allowed that "the question is still unsolved as to "the causes that can have led to that excessive absorption of gold "and notes by the public to which, in the absence of any unfavour- able condition of the foreign exchanges, the existing pressure is solely due. In addition to the influences of active employment and high wages, it is suggested that there has been a partial drain for Ireland, but the last published returns showed that the coin "held by the banks in that country was only 168,000l. in excess of "the total at this time last year."

In "Traver's Circular" it was remarked that "a further half million "sterling has been taken from the Bank by the public during the "past week, yet no additional suggestions have been offered to "account for this singular drain. Not only must the amounts with- "drawn in August and September, in connection with election and "harvest payments, have been returned long ago to their natural "channels, but the sums withdrawn for autumn pleasure traffic must "now also be finding their way back to the banks. The absorption, "therefore, becomes every day more inexplicable."

By other papers or their correspondents the absorption of money was attributed variously to the large American purchases on credit, to extensive speculations in cotton at Liverpool, to the sinking of capital in joint stock enterprises, or to the Fenian conspiracy.

The remarks of the "Economist," though written during the progress of the pressure, appear to be substantially correct. In the issue of 14th October, the editor said, "The present rise in the value "of money is owing to the simultaneous occurrence of three causes. "There is a sort of tide in the cash transactions of the country which periodically empties and periodically fills the Bank till. At the close of every quarter there is a strong outgoing current. The non-banking classes then get their money. Salaries are paid, wages are paid, small dividends are paid; each of these transactions is very minute, but their aggregate mass is very large. \* \* Little people are paid in actual cash; they take so much from the Bank till. \* \* Speaking generally, the middle of each quarter is marked by an incoming current towards the Bank, and the close of every quarter by an outgoing current from the Bank."

The periodical quarterly outflow of money from the Bank was

then, according to the "Economist," the chief cause of the pressure, aggravated, as it goes on to explain in this particular case, by two minor causes, the demand for coin for Ireland, and the creation of bills by large cotton speculations. A few weeks later the "Economist" pointed out an unusual increase of the export and import trade of the country, revealed by the Board of Trade returns, as the chief aggravating cause.

It was, however, a correspondent whose letter, signed G. F., was inserted in the "Economist" of 21st October, who most correctly, as I think, attributed the pressure to an *annual tide* in the movement of money.

"Why," he says, "was the pressure in October, 1847, in October. "1857, in October last year, in October this year, and more or less in "October every year? It is because there is an annual tide in the "cash transactions of this country, and I believe of all countries. "The currency generally, including bank notes of all our banks, gold "coin, and silver coin, expands from July to the end of October or "beginning of November; it contracts from the middle of Novem-"ber to the end of March, and is on the whole stationary in April, "May, and June. Such is the annual tide. "masked to some extent by the action of the quarterly tides. I believe that observations in the direc-"tion I have indicated would be found to confirm the law of annual "tides arising from agricultural as distinguished from manufacturing "causes; and to prove that they are a periodical source of disturb-" ance in the money markets of the world, of greater force and im-"portance than has hitherto been acknowledged."

In these able remarks I thoroughly concur, and I think it therefore a work of interest to direct the attention of the Society to such analyses of the periodical fluctuations as G. F. suggests. It is the more needful because G. F. is not aware of the great peculiarity of the October drain, and even the "Economist" is so far from being quite accurately informed concerning these fluctuations that it considers the most serious demand for coin to occur in December.\*

What I have to point out is, that in the beginning of October there are several concurring tendencies towards a drain of currency which render this by far the most critical period of the whole year. In September, 1862, I pointed out this tendency to an autumnal disturbance in the money market. In a paper read before the British Association in 1862, I said:—

"Some, perhaps, would attribute the sudden changes in the rate of discount, bankruptcies, and consols, to the occurrence of panics during the months of October and November. It would be more

<sup>\* &</sup>quot;Economist," 2nd December, 1865, vol. xxiii, p. 1453.

"correct, however, to say that there is a periodic tendency to com"mercial distress and difficulty during these months, of which all
"concerned should be aware. It is when great irregular fluctuations
"aggravate this distress, as in the years 1836, 1839, 1847, 1857, that
"disastrous breaches of commercial credit occur."

In two of the three succeding years, namely 1863 and 1865, this autumnal pressure has been strikingly manifested, and these occurrences, considered in connection with the fact that since 1825 all the severest pressures have either commenced or culminated in the last quarter of the year, are sufficient *primâ facie* evidence of a dangerous tendency in these months worthy of the deliberate attention of commercial men.

I have lately found, however, that so long ago as December, 1857, this autumnal pressure was distinctly described by Mr. William Langton to the Manchester Statistical Society. After noticing the fluctuation caused by the payment of the dividends, he makes the following very able and true remarks: \*-" This short and superficial "wave is accompanied by another, not so easily detected (because "sometimes absorbed in a larger movement), and more difficult "to account for. It has an annual increment and collapse, and is "doubtless connected with the action of the seasons upon trade. "In the midst of other disturbances this wave may be traced in the " magnitude of the operations of the third and fourth quarters, and "the almost invariable lull in the second quarter of each year, the "third quarter being generally marked by rapid increase in the " demand for accommodation at the Bank. The culminating point of "the movement, originating in the third quarter of the year, appears "to be a moment favourable to the bursting of those periodical "storms, in which the commercial difficulties of the country find " their crisis."

Now, I have no hesitation in saying that the autumnal pressure of 1865, was little more than an unusually distinct exhibition of this curious tendency to a drain of currency and capital in the autumn, and especially in the month of October. I wish, therefore, to divide the remainder of my remarks among four points:—

- 1. To analyse somewhat closely the nature of this tendency as shown in average tables of the circulation and the Bank accounts.
  - 2. To offer some suggestions as to its cause.
- 3. To examine how far, and from what unusual causes the pressure of 1865 exceeded the average autumnal pressure.
- 4. To consider whether the action of the Bank during these disturbances is faulty, and whether any legislative change could truly alleviate the evil.
- \* Observations on a table showing the balance of account between the mercantile public and the Bank of England. Read December 30th, 1857.

#### II.—On the Average Fluctuations of the Currency, and the Bank Accounts within the Year.

The nature and extent of the autumnal pressure is first of all clearly seen in tables of the average fluctuations of the Bank accounts from week to week, which I prepared for the British Association in 1862, and which are printed and explained in the appendix. (See Table I.)

The fact which first strikes us in these tables is the great quarterly variation in all the principal elements of the Bank accounts, chiefly caused by the payment of the dividends. Coincident with this payment, we observe a sudden increase in the note circulation, and in the private deposits, a considerable decrease of private securities or bills, a slight decrease of the bullion, accompanied by a larger, but otherwise similar variation of the loanable capital.

The amounts of these variations are approximately as follows:—

	,		Mlns. £
Government deposits	s, aecreas	e	4,26
Private securities,	"		1,91
Bullion and coin,	,,	***************************************	,62
Loanable capital,	,,	•••••	1,91
Notes in circulation,	increase	***************************************	1,40
Private deposits,	,,		1,55

It is easy to detect in the tables evidence of a monthly variation, due to the settling day at the commencement of the month.

The annual tide in the accounts, however, is far more interesting than these artificial quarterly and monthly variations. It is ascertained in a manner very imperfect, no doubt, but sufficient for our purposes, by first determining the average variations within the quarter, and then subtracting these variations from the general variations in Table I.

Thus Table III gives the variation within the year, of the five principal elements of the Bank accounts, after elimination of the quarterly disturbance. We observe that the note circulation is at a minimum in January and February; that it rises gradually to a maximum in the third quarter, and then rapidly decreases during November and December. The private securities and private deposits exhibit great and opposite changes during the third and fourth quarters; the securities rise to a remarkable maximum, and the deposits fall to a very low minimum in the first week of October.

The bullion and loanable capital undergo a curious double oscillation during the year, both rising to a maximum in the first quarter, and again at the beginning of the third quarter. I am at a loss to explain this double oscillation, but it does not directly bear upon our

present subject. The important fact for us is, that both the bullion and capital undergo a continuous decrease from the beginning of the third quarter, to about the middle of the fourth.

We may sum up these variations so far as they regard our present purpose, by saying that the Bank experiences during the latter part of the year, especially in the beginning of October, an unusual demand for money. Both by the withdrawal of deposits, and the presentation of bills for discount, the public try to get what they can from the Bank.

These accounts do not, however, reveal the most singular fact concerning the autumnal pressure. The movements of coin undergo curious fluctuations throughout the year, and reach a most remarkable crisis in the month of October.

The volumes of the "Miscellaneous Statistics of the Board of "Trade" contain certain tables of the movement of coin in the Bank of England, which I have not seen noticed. From these tables I deduce the following remarkable statements:—

Average Amount (1855-62) of Gold Coin sent to the Branches of the Bank of England during each Month of the Year.

• •		•	
	£		£
January	293,000	July	174,000
February	50,000	August	219,000
March	82,000	September	209,000
April	119,000	October	463,000
May	166,000	November	263,000
June	140,000	December	214,000

It is seen, that far more gold is sent during October than during any other month, and more than twice as much as during either of the preceding harvest months.

Average Excess (1855-62) of Payments of British Coin at the Bank of England over Receipts.

	£
January (dividend)	163,000
February (excess of receipts)	<b>307,00</b> 9
March	111,000
April (dividend)	808,000
May	363,000
June (excess of receipts)	<b>74,</b> 000
July (dividend)	763,000
August	529,000
September	704,000
October (dividend)	1,509,000
November	258,000
December	123,000

We find, as we should expect, that the payments of coin are far larger in the first month of each quarter than in either of the succeeding months—on an average about four times as large. But we cannot fail to be struck with the fact, that the excess of payments of coin over receipts is nearly twice as great in October as in any other month.

The result is very remarkable, too, when we take the aggregate excess of payments over receipts in each quarter, or vice versa, as follows:—

First qu	arter	January-March	33,000	Receipts
Second	"	April-June	1,097,000	Payments
Third	,,	July-September	1,996,000	,,
Fourth	,,	October-December	1,890,000	,,

£.

I may add, that these fluctuations do not appear to be due to any very great or all-extensive influence of the seasons upon trade. For on carefully examining Mr. Newmarch's well known statistics of bills created in the years 1830-53, I find no great difference between the four quarters of the year. The average aggregate amounts of bills of all sizes drawn are as follows:—

		æ
First qu	arter	 64,050,000
Second	"	 61,550,000
Third	,,	 65,690,000
Fourth	"	 61,960,000

The variation is greatest in the large bills, but the extreme variation of the aggregate is only to the extent of about 6 per cent. It is curious that we meet here again the double oscillation shown in the bullion and reserve of loanable capital.

#### III.—On the Cause of the Autumnal Pressure.

It being now sufficiently obvious how extensive is the autumnal disturbance of the money market, and especially how singular is the periodical crisis in October, I come to the question, What is the cause of the disturbance? This cause must be sought in the influence of the seasons upon trade and industry, but the difficult point is—Why does the drain fall so peculiarly in the first few weeks of October?

It is not hard to see that there must be an excess of coin in circulation in the latter half of the year. In agriculture, in the building and out-door trades generally, and in pleasure-seeking and travelling, there is an excess of wages and payments dispersed in the summer, and especially in the three months, July, August and September. Large numbers of labourers and others must then receive wages in coin upon which they will have to maintain themselves partially or wholly until next spring.

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As they are not a class of persons who make any appreciable use of banks, even of savings' banks, they must actually hold a certain amount of coin by them in a temporary hoard.

This view is supported by the fact that the variation is more important in the metallic circulation than in that of notes, of which few would in England be held by the working classes.

But then, why do we not find the drain most excessive during the months June, July, August, and September, when the industry is most active? Why does the drain fall with most intensity into October? I cannot give an explanation with any confidence, and would rather look for it from members of the Society better acquainted with the details of banking. But it seems to me likely that the drain first falls upon private firms and country banks, whose reserves in consequence run down. Advantage is then taken of the payment of the dividends in October to replenish the banking reserves of notes and coin. It is evident, in fact, from Table I, that in October the dividends are withdrawn rather than placed in deposit, as usual at the other dividend payments.

Thus it would seem that there is a tendency every autumn to use the Bank of England as a bank of support, and of last resort. While the newspapers are arguing in October that the harvest is done, and pleasure traffic over, and therefore the coin should be flowing back, the coin is really dispersed among the non-banking classes of the country, and the drain having previously fallen on the smaller banks is only just reaching the Bank of England. "What " is seen and what is not seen" should always be discriminated in these matters. We do not see the movements of coin until the drain suddenly falls upon the Bank in the first weeks of October with unexpected and alarming severity.

It is interesting to compare the variation of the Bank of England circulation with that of the country and joint stock banks, or with that of the Scotch and Irish note currencies. I have calculated the average variation from week to week of the English country note circulation for the series of years 1845-62, and have shown it in Table V.

It will be seen that there is an increase of circulation at the commencement of each quarter, but in April and October the increase is much greater and more lasting than in the other quarters. The currency falls to its lowest in August and the beginning of September, then rises rapidly to the highest point of the year in the end of October, whence it falls continuously to the end of the year. These variations do not agree well with Mr. Gilbart's "Laws of the "Currency," deduced from an observation of monthly returns for ten years.\*

<sup>\*</sup> Statistical Journal, vol. xvii, p. 295 (December, 1854).

His description, however, of the changes in the Scotch currency is very accurate.\* "In Scotland the lowest point of the circulation "is in March, and the highest in November. The advance, however, "between these two points is not uniform; for the highest of the "intervening months is May, after which there is a slight reaction; "but it increases again until November and falls off in December. "The reason of the great increase in May and November is, that "these are the seasons of making payments. The interest due on "mortgages is then settled, annuities are then paid, the country "people usually take the interest on their deposit receipts, and the "servants receive their wages. There are frequently large sums "transferred by way of mortgage."

The variation of the Irish note circulation does not exactly agree with Mr. Gilbart's remarks. The notes of 5l. and upwards vary like the English country issues. The smaller note circulation falls to a low point in July and August, then rises rapidly until November, owing to the purchase of harvest produce. It remains high until March, when it begins to fall gradually till July.

A complete explanation of all these variations, pointing out how much is due to each particular cause, could only be founded on a wide basis of statistics, which do not exist. Much might, indeed, be done by minute inquiries into the customary payments at different times of the year, and in different parts of the country; but such an inquiry I am not at present able to undertake. I must content myself with pointing out the precise character and amount of the fluctuations in order that we may rightly appreciate the degree of disturbance they will usually occasion in the money market.

To sum up, then, the October drain is due, like many economical disturbances, to a concurrence of causes. The dispersion of money in wages during the summer, and the absorption of money and capital in buying up the produce of the harvest, occasion a general autumnal drain upon the resources of the banks, causing the private deposits, the bullion, and the reserve of notes to fall. Then the general quarterly payments of rent, bills, and especially the dividends at the beginning of October, cause a sudden extra run upon the resources of the Bank, quite sufficient in certain states of the money market to engender a panic, unless its normal and temporary nature be well understood.

### IV.—Special Examination of the Pressure of 1865.

I now proceed to compare the drain of bullion in the autumn of 1865, with that normal drain shown in the average tables of the Bank accounts. The following statement gives the comparison in detail:—

<sup>\*</sup> Statistical Journal, vol. xvii, pp. 297, 298 (December, 1854).

	Notes in C	Circulation.	Bulli Issue De	on in partment.		Reserve of Loanable Capital (Notes).	
Date.	Average of 1845-61.	1865.	Average of 1815-61.	1865.	Average of 1845-61.	1865.	
June 7	19,88	21,16	14,35	$14,89 \\ 15,09 \\ 15,35 \\ 15,42$	8,65	8,38	
" 14	19,63	20,73	14,58		9,12	9,01	
" 21	19,52	20,71	14,80		9,45	9,29	
" 28	19,81	21,12	14,99		9,35	8,95	
July 5	20,20	22,22	14,85	15,12	8,82	7,55	
	20,82	22,39	14,67	14,56	8,02	6,82	
	21,00	22,24	14,55	14,15	7,72	6,56	
	20,80	22,07	14,49	13,60	7,85	6,18	
Aug. 2	20,81	$\begin{array}{c} 22,64 \\ 22,03 \\ 21,97 \\ 21,78 \\ 21,60 \end{array}$	14,37	13,60	7,73	5,61	
, 9	20,57		14,33	13,35	7,93	5,97	
, 16	20,46		14,38	13,24	8,09	5,92	
, 23	20,24		14,35	13,27	8,29	6,14	
, 30	20,19		14,35	13,57	8,34	6,62	
Sept. 6	20,10	21,70	14,29	13,42	8,36	6,37	
,, 13	19,77	21,39	14,33	13,30	8,73	6,56	
,, 20	19,70	21,32	14,36	13,34	8,83	6,67	
,, 27	19,86	21,50	14,33	13,13	8,64	6,28	
Oct. 4	20,41	22,73	14,14	12,44	7,90	4,36	
,, 11	20,47	22,32	13,91	11,96	7,61	4,29	
,, 18	21,06	22,31	13,69	12,00	6,81	4,34	
,, 25	20,90	21,82	13,60	12,41	6,88	5,24	
Nov. 1	20,97	21,85	13,57	12,51	6,78	5,31	
, 8	20,64	21,47	13,55	12,57	7,08	5,75	
, 15	20,31	21,15	13,55	12,86	7,41	6,36	
, 22	20,04	20,58	13,68	13,67	7,81	7,74	
,, 29	19,89	20,72	13,82	13,84	8,11	7,77	

The fairest mode of bringing the matter into a narrower compass will be to take the extreme highest and lowest points.

Average of Years, 1845-61.	Millions.	1865.	Millions.
Notes in Circulation— September 20 October 18	£ 19,70 21,06	September 20 October 4	£ 21,32 22,73
Difference	1,36	Difference	1,41
Bullion— June 28 November 8  Difference	14,99 13,55 1,44	June 28 October 11 Difference	15,42 11,96 3,46
Reserve of Notes—           June 21           November 1           Difference	9,45 6,78 2,67	June 21 October 11 Difference	9,29 4,29 5,00

If we restrict our view more particularly to the October drain, by comparing the extreme points of September and October, the change of the circulation remains as already shown, and the drain of gold and capital is as under:—

Average of Years, 1845-61.	Millions.	1865.	Millions.
Bullion— September 20 October 25  Difference	£ 14,36 13,60 ,76	September 6 October 11 Difference	£ 13,42 11,96
Reserve of Notes— September 20 October 11  Difference	8,83 7,61 1,22	September 20 October 11 Difference	6,67 4,29 2.38

However we view it, the drain of 1865 was considerably beyond and in fact about double what is shown as the normal change in my average tables.

This excess may arise either from (1) exceptional circumstances affecting the trade of 1865, or (2) the general and gradual development of our industry.

I shall not delay much over the special disturbing circumstances of 1865. Many of them were mentioned in the beginning of the paper. The considerable degree of pressure in the money market, which has existed during the winter, shows, however, that excessive investments in joint stock and other enterprises have diminished the ready capital of the country, in spite of the late unusual abundance and cheapness of corn. It is known, too, that during last year, and one or two previous years, buildings of all sorts have been erected in great numbers in most of our towns. Great sums of money must have been dispersed in wages during the progress of these works, and especially during the summer.

Secondly, the ordinary export trade of the country expanded very rapidly during the year, as noticed by the "Economist." Not only do these exports represent so much money dispersed in wages over the country, but being sold to a great extent on credit, they cause a temporary abstraction of the capital of the country.

What I have chiefly to remark, however, is, that with the rapid growth of our system of trade and industry, our money market is necessarily becoming more and more delicate. We must look this fact boldly in the face. We must not needlessly complain of what is to a great extent an inevitable result of our progress, nor on the other hand must we omit any efforts to apply a remedy so far as this is possible.

	Bullion in the Bank, September.	Notes in Circulation.	Total Exports of Year.	Computed Real Value of Total Imports of Year.
	Mlns. £	Mlns.	Mlns. £	Mlns.
1844		20,17	59,00	_
'54	12,63	19,62	116,00	152,00
'64	12,22	21,36	213,00	275,00

The following figures will aid in showing what I mean:-

Whether we consider these numbers, or whether we look to the increasing perfection of our system of credit, clearing, and banking generally, which, as shown by Sir John Lubbock, enables coin to be almost dispensed with in large transactions, we see that we are carrying on a vaster and vaster system of trade upon a nearly stationary reserve of currency. Our trade goes upon a method resembling that of barter, except that the values exchanged or written off against each other are all determined and expressed in gold. Now it is the aggregate of coin and gold in circulation or reserve, in short the supply of gold as compared with the work it has to do, which determines the range of prices, and which must in the last resort be used to make the payments either in an internal or foreign drain.

Admirably has M. Laveleye said, in a passage of the "Revue des "Deux Mondes," quoted by the "Economist," in its "Annual "Review of 1864:"—

"All countries which carry on gigantic transactions with small "reserves of gold and silver, and which have a vast movement of "importations and exportations, must be exposed to these economical "perturbations. \* \* \* \* The more a country "expels the precious metals from the channels of circulation, and "replaces them by instruments of credit, bank notes, cheques, "warrants, deposits, clearing-houses, &c., and the more at the same "time it develops its relations with foreign countries, the more it "will be exposed to the periodical return of financial perturbations, because more easily an unfavourable balance of trade and payments "will disturb all the mechanism of exchanges, and will require from "the managers of credit institutions redoubled circumspection, prudence, and ability."

Now this is just as true of internal as of foreign drains of gold. The larger our system of trade is, the larger the excess of wages dispersed at some periods of the year. When our reserve of coin is stationary, the greater apparently the inconvenience and alarm excited.

Even without taking into account exceptional circumstances, the

unbounded prosperity of the last few years seems sufficient to explain why the autumnal drain has of late manifested itself with far more than the normal severity of the years 1845-61.

We must bear in mind that we are moving onwards, and rapid progress such as ours, however desirable in itself, must beget some difficulties.

### V.—On the Action of the Bank of England.

We come now to the last question, whether the action of the Bank of England as at present constituted is beneficial to trade during these frequently recurring pressures.

It is well known that many merchants and gentlemen of influence in Glasgow, Liverpool, and elsewhere, have a strong desire to unsettle our monetary system again. They spare no pains in urging upon us that the Bank of England is the cause of all our troubles, and while some go so far as to propose an inconvertible currency, the others advise a return to a free issue of notes, the convertibility of which hall be dependent on the credit and discretion of the issuing banks, according to the system which used to prevail in Scotland, for instance.

It is the latter scheme alone that I need consider here.

I will not deny that there is some at least apparent harshness in the action of the Bank during the temporary fluctuations which I have attempted to describe. But after considerable reflection I have satisfied myself that this harshness is not necessarily inflicted under the conditions of the Bank Act, or rather I should say that what harshness is a necessary consequence of that Act is legitimate and ultimately beneficial to trade.

As regards a foreign drain of bullion, I may first remark, Lord Overstone and the supporters of the Bank Act seem to me to be in an impregnable position. Nothing can be more desirable, nothing more in accordance with the natural laws of economy and trade, than that a foreign drain should at once cause a reduction in the currency, and thus tend to restore the exchanges to equilibrium as quickly as possible. In a system of unrestricted issues the drain will for a time probably act upon the bankers' metallic reserves without leading them at once to reduce their advances of notes. The revulsion thus deferred only becomes ultimately more severe and hazardous.

It is, however, an internal drain which we have now to consider, and in this the *primâ facie* inconvenience of a restricted paper currency is manifested. Mr. Guthrie, the able advocate of the Scotch system, in his "Practical Contrast of English Banking and "British Free Banking," puts this clearly enough.

In our present system, he says:-

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"The natural demand at rent-terms and other seasons for increased circulation, has the same deranging and distressing effect upon the money market as an export of bullion, and the people of England are excluded from a privilege which the people of Scot"land have found to be both safe and most profitable and con"venient."

In contrast to this, he adds:---

"The circulation has increased in Scotland at certain seasons, to "the amount of 10 or 15 per cent., but this natural periodical "demand was met by the elasticity of the Scotch 11. note circulation "without the slightest difficulty or disturbance of the money market, and a similar circulation, with its corresponding advantages, should of course be allowed to England."

These remarks are perfectly applicable to the autumnal pressures we have been considering. Had we an unrestricted note circulation, the three millions and a half of additional currency required might have been furnished by a proper number of bits of paper. Bankers and the Bank of England would readily have issued these notes in discount or payments of deposits and dividends. No one, perhaps, would have known until the proper blue book appeared long afterwards, how great an excess was issued, and the money market might have proceeded without apparent disturbance.

The question here becomes twofold:-

- 1. How far is such an absence of apparent disturbance desirable?
- 2. How far may it be attained under the present system?

The answers I take it, are as follows:—

- 1. So far as a demand is a purely temporary demand for internal circulation, it is desirable that it should be furnished by an extended issue of notes or gold from the Bank reserves. This excess of currency will naturally return of itself as the seasons go round.
- 2. So far as a demand for gold or notes is known to be of this temporary character, it may even now be properly supplied by the Bank of England and other banks without exciting pressure on the money market.

On the other hand, so far as a drain is not certainly known to be of a temporary and periodic nature, bankers are bound to raise the terms of advances and restrict their amounts. Under the same circumstances bankers would be bound in prudence to reduce their issues, even did the Bank Act not exist. I hold, in short, that the Bank of England and bankers generally have just the same legitimate latitude in increasing or diminishing their advances now as they would have under an unrestricted system. It is only the illegitimate expansion of the note currency which is put out of their power.

If it be clearly known that in the first weeks of October there is a normal demand for currency far greater than at any other time of the year, then I take it to be an expedient and necessary policy of the Bank to prepare themselves for it somewhat beforehand, and when it does occur, to let their reserve run down lower than they would at any other time of the year, knowing that the excess of currency issued will in the natural course of things return.

This is the policy to a considerable extent adopted even at present. The "Times" represents the Bank directors as feeling confidence that the amounts of currency gradually withdrawn during July, August, and September would shortly return. But their confidence failed when the sudden October pressure fell upon the Bank. Here was, I apprehend, a double error to some extent. The newspaper press and the mercantile world were not sufficiently aware that the chief pressure falls into October. Had this been thoroughly known it would have been only prudent for the Bank directors to strengthen their position somewhat earlier than they did. When the expected run in the beginning of October came upon them it would have been quite unnecessary to put on so violent a pressure as a rise of  $2\frac{1}{2}$  per cent. in the rate of discount in ten days.

It cannot be denied, indeed, that to some extent the periodic drain was aggravated by a more chronic scarcity of capital which has been felt ever since. Still I have no hesitation in asserting that if the public and the commercial press had been thoroughly aware how peculiar those first few weeks of October naturally are, far less alarm, pressure, revulsion of prices and injury would have been excited last autumn.

I take it, therefore, that a careful observation and comparison of the fluctuations of the money market is sufficient to enable us to avoid the inconveniences of these periodic pressures. We should learn to discriminate what is usual and normal in the changes of the Bank accounts, from what is irregular or abnormal. It is a matter of skill and discretion to allow for the normal changes. It is the abnormal changes which are alone threatening or worthy of very much attention. These changes arise from deficient or excessive harvests, from sudden changes of supply or demand in any of our great staple articles, from periods of excessive investment or speculation, from wars and political disturbances, or other fortuitous occurrences which we cannot calculate upon and allow for. In such matters of high uncertainty it is desirable to trust as little to discretion and commit as much to the operation of natural laws as possible. The Bank Act carries out this principle, and relieves the directors from a vast responsibility by making the circulation identical in amount and variations with a purely metallic currency. I must maintain that under the present system the English currency is governed by the natural laws of supply and demand of a metallic currency, and not by merely artificial regulations. If the terms are

understood aright, we have already a natural and free trade system of currency. And I venture to take this auspicious expression, Free Trade, from those who use it wrongly and confuse the free manufacture of currency with free trade in capital, the true business of the banker.

#### APPENDIX.

### Description of the Tables I, II, and III.

Table I was formed by arranging the Bank accounts of the years 1845-61 under each other, so that the average state of the accounts for the first week, for the second week, and so on, could be drawn.

Table II was formed from Table I, by arranging the accounts of the corresponding weeks of each quarter under each other, and drawing the average of the first week of the quarter, the second week, and so on.

Table III represents the divergence of each of the principal elements of the Bank account from its average point, after elimination of the quarterly variation. It was formed by subtracting the numbers in Table II from the corresponding numbers of each quarter in Table I. Thus—

20,200,000 = average note circulation of 27th week.
20,110,000 = ,, 1st week of quarter.

Difference 90,000 = divergence of note circulation.

The numbers in Table III are only approximative, and in the forty-first week are thrown wrong by the dividend day falling five days later than usual.

Tables IV, V, and VI sufficiently explain themselves.

N.B.—All the tables were calculated to a further place of figures, and thus an apparant discrepancy of an unit will sometimes be met in the last place of figures given.

In cutting off useless columns of figures an unit has always been added to the last place retained when the highest figure cut off was 5 or more. Thus, instead of 10,665 I should write 10,67, according to a rule approved by Professor De Morgan.

# Table I.—Average State of the Accounts of the Bank of England in each Week. (Average of 1845-61.)

[0,000's omitted.]

					[0,000 B	omitted.]					
	Average Dis-	C	irculation	1.		ion and ld and Sil		Reserve	Total Reserve,	Private	Private
Weeks.	tribution				Issue	Bank-		of	Notes		De-
Weeks.	1		73.11						i i	Secu-	
	of	Notes.	Bills.	Total.	Depart-	ing Depart	Total.	Notes.	and	rities.	posits.
	Months.				ment.	ment.		ł	Coin.		
1	Jan. 4	19,74	98	20,72	14,16	64	14,80	8,59	9,22	16,75	10,81
$\overset{1}{2}$	1	20,32	1,02	21,34	13,98	63	14,60	7,83	8,45	15,31	12,71
$\bar{3}$	1 " 40	20,51	1,03	21,54	13,94	65	14,59	7,60	8,25	14,83	12,43
4	,, 18 ,, 25	20,36	1,01	21,36	13,98	67	14,64	7,79	8,46	14,85	12,39
5	Feb. 1	20,42	99	21,41	13,99	68	14,68	7,75	8,43	15,14	12,33
6	,, 8	20,01	99	21,00	14,03	70	14,73	8,18	8,88	15,13	12,09
7	,, 15	19,84	96	20,80	14,18	71	14,88	8,51	9,22	15,16	11,91
8	,, 22	19,60	93	20,53	14,27	73	15,00	8,84	9,57	15,16	11,89
9	Mar. 1	19,75	93	20,67	14,31	72	15,03	8,74	9,45	15,74	11,91
10	,, 8	19,55	93	20,49	14,36	71	15,07	8,97	9,68	15,67	11,67
11	,, 15	19,37	91	20,28	14,41	72	15,13	9,20	9,93	15,83	11,68
$\frac{12}{12}$	,, 22	19,27	91	20,18	14,51	73	15,24	9,42	10,14	15,96	11,57
13	" 29	19,72	92	20,64	14,48	72	15,20	8,93	9,65	16,55	11,46
14	Apl. 5	20,10	95	21,06	14,22	69	14,91	8,29	8,97	16,61	11,64
15	,, 12	20,70	99	21,68	14,03	66	14,69	7,50	8,17	15,20	13,26
16	,, 19	20,74	99	21,73	13,92	64	14,56	7,35	7,99	14,74	12,91
17	,, 26	20,64	99	21,63	13,87	68	14,55	7,40	8,08	14,46	12,45
18	May 3	20,70	1,00	21,70	13,73	68	14,41	7,20	7,88	14,55	12,07
19	,, 10	20,47	1,00	21,47	13,78	69	14,48	7,49	8,18	14,59	11,89
20	, 17	20,16	97	21,13	13,81	71	14,52	7,82	8,53	14,77	11,69
21	,, 24	19,92	95	20,86	14,03	73	14,75 14,96	8,28	10,0	14,59	11,47
$\begin{array}{c} 22 \\ 23 \end{array}$	,, 31 June 7	19,94	94	20,88 20,82	14,24	72	15,07	$8,47 \\ 8,65$	9,19	$14,65 \\ 14,75$	11,55
$\frac{23}{24}$	7.1	19,88	95 94	20,57	14,35	72	15,29	9,12	9,36	14,78	11,42
25	″ 01	19,53	91	20,43	14,50	73	15,53	9,45	10,18	14,77	11,43
26	,, 21 ,, 28	19,81	93	20,74	14,99	70	15,69	9,35	10,05	15,24	11,06
	"			1		'	<b>'</b>	<i>'</i>		,	
$\begin{array}{c} 27 \\ 28 \end{array}$	July 5	20,20	97	21,17	14,85	67	15,52 $15,32$	$8,82 \\ 8,02$	9,49	15,64	11,27
29 29	,, 12 ,, 19	20,82	1,01	$21,83 \\ 22,01$	14,67	65	15,19	7,72	8,67	14,31 $13,89$	13,04
30	" oc	21,00	1,04	21,84	14,55	65 64	15,13	7,85	8,37 8,50	13,71	12,56
31	Aug. 2	20,81	1,02	21,83	14,49	64	15,00	7,73	8,37	14,00	11,73
32	", 9	20,57	1,02	21,59	14,33	64	14,97	7,93	8,57	14,19	11,28
33	,, 16	20,46	1,03	21,49	14,38	65	15,02	8,09	8,73	14,36	10,96
34	,, 23	20,24	1,03	21,26	14,35	65	15,01	8,29	8,94	14,22	10,58
35	,, 30	20,19	1,01	21,19	14,35	64.	15,00	8,34	8,98	14,55	10,51
36	Sept. 6	20,10	1,01	21,11	14,29	62	14,91	8,36	8,98	14,83	10,17
37	,, 13	19,77	98	20,76	14,33	64	14,98	8,73	9,37	15,03	10,16
38	,, 20	19,70	99	20,68	14,36	66	15,01	8,83	9,49	15,53	10,15
39	,, 27	19,86	99	20,85	14,33	65	14,99	8,64	9,30	16,18	10,07
40	Oct. 4	2,0,41	1,03	21,44	14,14	60	14,74	7,90	8,50	16,89	10,15
41	,, 11	20,47	1,03	21,50	13,91	62,	14,53	7,61	8,23	16,63	10,58
42	,, 18	21,06	1,07	22,12	13,69	59	14,28	6,81	7,39	15,40	11,53
43	1 0-	20,90	1,06	21,96	13,60	61	14,21	6,88	7,48	15,22	11,47
44	,, 25 Nov. 1	20,97	1,05	22,01	13,57	61	14,18	6,78	7,39	15,46	11,32
45	,, 8	20,64	1,04	21,68	13,55	61	14,16	7,08	7,69	15,35	11,04
46	,, 15	20,31	1,02	21,33	13,55	64	14,19	7,41	8,05	15,63	10,90
47	,, 22	20,04	1,01	21,05	13,68	63	14,31	7,81	8,44	15,94	10,86
48	", 29	19,89	99	20,87	13,82	65	14,47	8,11	8,76	16,10	10,97
49	Dec. 5	19,75	98	20,74	13,90	67	14,57	8,32	8,98	16,10	10,88
$\begin{array}{c} 50 \\ 51 \end{array}$	,, 12 ,, 19	19,44	95	20,39 20,19	14,06	68 68	14,75 $14,89$	8,79	9,47	16,08	10,83
$\frac{51}{52}$	00	19,24	94 91	20,19	14,20	66	14,89	$9,13 \\ 9,05$	9,82 9,71	$16,28 \\ 16,71$	10,80
	,, 26	19,35	7.	20,20	14,23	"	- 2,00	5,00	7,/1	10,11	10,79

Table II.—Average Variation of the Bank Accounts from Week to Week of the Quarter.
[0,000's omitted.]

Circulation.		Bullion and Coin. Gold and Silver.			Reserve,		Deposits.			
Weeks.	Notes.	Bills.	Total.	Issue Depart- ment.	Bank- ing Depart- ment.	Total.	Notes and Coin.	Private Securities.	Public.	Private.
1 2 3 4 5 6 7 8 9	£ 20,11 20,58 20,83 20,68 20,72 20,42 19,95 19,94 19,82	£ 98 1,01 1,02 1,02 1,02 1,01 1,00 98 96	£ 21,10 21,59 21,85 21,70 21,74 21,44 21,19 20,92 20,90 20,79	£ 14,34 14,15 14,02 13,98 13,91 13,92 13,98 14,08 14,18 14,23	£ 65 64 63 65 65 66 68 69 68	£ 14,99 14,79 14,66 14,63 14,57 14,58 14,65 14,77 14,86 14,90	£ 9,05 8,38 8,00 8,13 8,02 8,33 8,63 8,99 9,09 9,25	£ 16,47 15,36 14,71 14,56 14,79 14,82 14,98 14,98 15,26 15,34	£ 7,89 5,02 3,94 4,01 4,27 4,68 5,38 5,94 6,28 6,65	£ 10,96 12,40 12,36 12,09 11,86 11,58 11,36 11,20 11,24 11,03
11 12 13	19,55 19,43 19,69	95 94 94	20,50 20,37 20,62	14,35 14,47 14,51	69 70 68	15,03 15,17 15,19	9,65 9,91 9,68	15,43 15,64 16,17	7,18 7,78 8,20	11,03 10,92 10,85

Table III.—Divergence of the Bank Accounts from their Average Condition, after elimination of the Quarterly Variation, 1845-61.

[000008 omitted.]

Weeks.	Notes in Circula- tion.	Total Bullion in Issue and Banking Depart- ments.	Reserve of Notes and Coin in Banking Depart- ment.	Private Secu- rities.	Private De- posits.	Wecks.	Notes in Circula- tion.	Total Rullion in Issue and Banking Depart- ments.	Reserve of Notes and Coin in Banking Depart- ment.	Private Secu- rities.	Private De- posits.
1 2 3 4 5 6 7 8 9 10 11 12 13	£ -37 -26 -31 -32 -31 -41 -35 -20 -27 -18 -16 + 4	£ -19 -19 -6 +1 +11 +14 +23 +16 +16 +9 +7	£ + 18 + 7 + 25 + 33 + 41 + 558 + 58 + 28 + 24 - 2	£ +28 -5 +11 +29 +36 +31 +18 +33 +40 +33 +38	£ -16 +31 +7 +30 +47 +52 +54 +69 +67 +63 +66 +66 +62	27 28 29 30 31 32 33 34 35 36 37 38	£ + 9 + 24 + 17 + 13 + 9 + 15 + 27 + 28 + 22 + 27 + 18	£ +53 +54 +50 +444 +39 +37 +24 +13 -6 -16 -20	£ +44 +29 +37 +35 +24 +10 -5 -11 -28 -28 -42 -38	£ - 83 -1,06 - 82 - 85 - 79 - 62 - 62 - 76 - 71 - 51 - 40 - 11 + 1	£ +31 +64 +20 -5 -13 -29 -41 -62 -72 -87 -86 -77
14 15 16 17 18 19 20 21 22 23 24 25 26	- I + I2 - 9 - 3 - 3 + 4 - 3 - 3 0 + 5 + 8 + 9 + 12	$\begin{array}{ c c c } -8 \\ -9 \\ -9 \\ -9 \\ -16 \\ -11 \\ -14 \\ -2 \\ +10 \\ +17 \\ +25 \\ +37 \\ +50 \\ \end{array}$	- 7 - 22 - 1 - 5 - 14 - 15 - 10 + 2 + 9 + 11 + 18 + 28 + 37	+14 -16 + 2 -10 -24 -23 -21 -39 -61 -59 -65 -87 -93	+ 67 + 86 + 55 + 37 + 21 + 31 + 33 + 27 + 32 + 39 + 40 + 23 + 22	40 41 42 43 41 45 46 47 48 49 50 51	+ 30 * + 23 + 25 + 22 + 12 + 9 - 6 - 7 - 11 - 19 - 34	-26 * -38 -42 -38 -43 -47 -46 -39 -34 -29 -28 -31	-55 -61 -65 -63 -65 -58 -55 -34 -27 -18 -9 +3	+ 41 * + 68 + 67 + 67 + 54 + 65 + 84 + 77 + 65 + 65 + 54	-82 -82 -62 -54 -54 -47 -34 -26 -15 -20 -12

<sup>\*</sup> The October dividends being due five days later than the other dividends, the results for the forty-first week are thrown out, and cannot be given.

## Table IV.—Average Amount of the Chief Elements of the Bank Accounts during the Whole Period, 1845-61.

Notes in the hands of the public  Seven day and other bills	£ 20,146,000 984,000 21,130,000
Gold and Silver Bullion and Coin—  Issue department	14,163,000 667,000
Reserve of notes and coin in banking department Private securities	8,854,000 15,269,000 11,451,000 5,940,000

## Table V.—Average Variation from Week to Week, of the Note Circulation of the English Private and Joint Stock Banks, 1845-62.

[0,000's omitted.]

Weeks.	Average Circulation.	Weeks. Average Circulation.		Weeks. Average Circulation.		Weeks.	Average Circulation.
1 2 3 4 5 6 7 8 9 10 11 12 13	£ 6,53 6,75 6,81 6,74 6,64 6,59 6,55 6,50 6,47 6,51 6,54 6,58 6,71	14 15 16 17 18 19 20 21 22 23 24 25 26	£ 6,86 6,97 6,97 6,94 6,92 6,90 6,87 6,75 6,62 6,56 6,52 6,48 6,48	27 28 29 30 31 32 33 34 35 36 37 38 39	£ 6,51 6,58 6,53 6,45 6,37 6,35 6,30 6,31 6,35 6,42 6,50 6,63	40 41 42 43 44 45 46 47 48 49 50 51	£ 6,85 6,98 7,06 6,99 6,85 6,79 6,69 6,61 6,52 6,49 6,41 6,41

Table VI. — Average Variation during the Year of the Bank Note Circulation of Scotland and Ireland, at Four-weekly Intervals, 1853-62.

[0,000's omitted.]

[0,000 B Onneccu.]											
Four- weekly Returns.	Scotland.		Ireland.		Four-weekly	Scotland.		Ircland.			
	£5 and Upwards	Under £5.	£5 and Upwards	Under £5.	Returns.	£5 and Upwards	Under £5.	£5 and Upwards	Under £5.		
1 2 3 4 5 6 7	£ 1,47 1,44 1,38 1,35 1,44 1,66 1,51	£ 2,63 2,50 2,41 2,41 2,46 2,75 2,59	£ 3,05 3,08 3,06 3,09 3,22 3,17 3,03	£ 3,57 3,60 3,50 3,39 3,26 3,09 2,93	8 9 10 11 12 13	£ 1,42 1,39 1,41 1,52 1,62 1,60	£ 2,55 2,54 2,61 2,67 2,83 2,83	£ 3,01 2,92 2,99 3,24 3,26 3,15	£ 2,82 2,82 3,01 3,41 3,54 3,55		