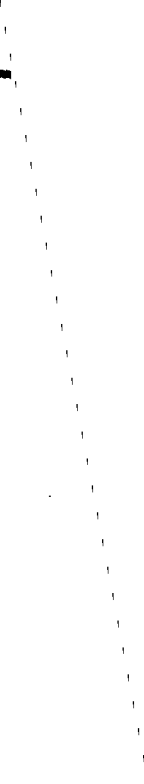


BANK OF FINLAND  
*MONTHLY BULLETIN*

REPRINTED ARTICLES PUBLISHED IN NUMBERS 1—9, 10, 11 OF 1921  
ISSUE AND IN NUMBERS 1—3 OF 1922 ISSUE,  
OUT OF PRINT.



## THE REGULAR STEAMSHIP LINES OF FINLAND.

The ports in Finland are generally icebound during the winter, i. e. from January until April, and until the end of the last century all navigation ceased for the winter, but with the development of industries and the growth of exports, the establishment of regular traffic from the Finnish ports independent of the season became a matter of great importance. Particularly the exports of paper and butter were dependent upon the possibility of regular sailings from the Finnish ports.

Since 1891 there has been a steamship service between Finland and England during the whole year — the Finnish boats sailing from Hangö or Åbo to Hull — and gradually more and more steamers were put on this line. Winter traffic has since then been developed and there are now winter lines from Finland to Copenhagen, Hull, Lübeck, Stettin and Stockholm, which include passenger service, and to London, Liverpool, Antwerp and Rotterdam for cargo only. The Government ice-breakers — amongst the strongest in Europe — are stationed at Åbo and Hangö during the winter and are naturally of great assistance to the traffic. Between Åbo and Stockholm there are three sailings every week, this line being regarded as the principal winter mail route.

All these regular lines and several other connections are kept up during the summer navigation, i. e. from May to December. It may be mentioned that there are lines between Wiborg, Helsingfors, Åbo, Wasa and the principal ports of Germany; also between Helsingfors and Reval,

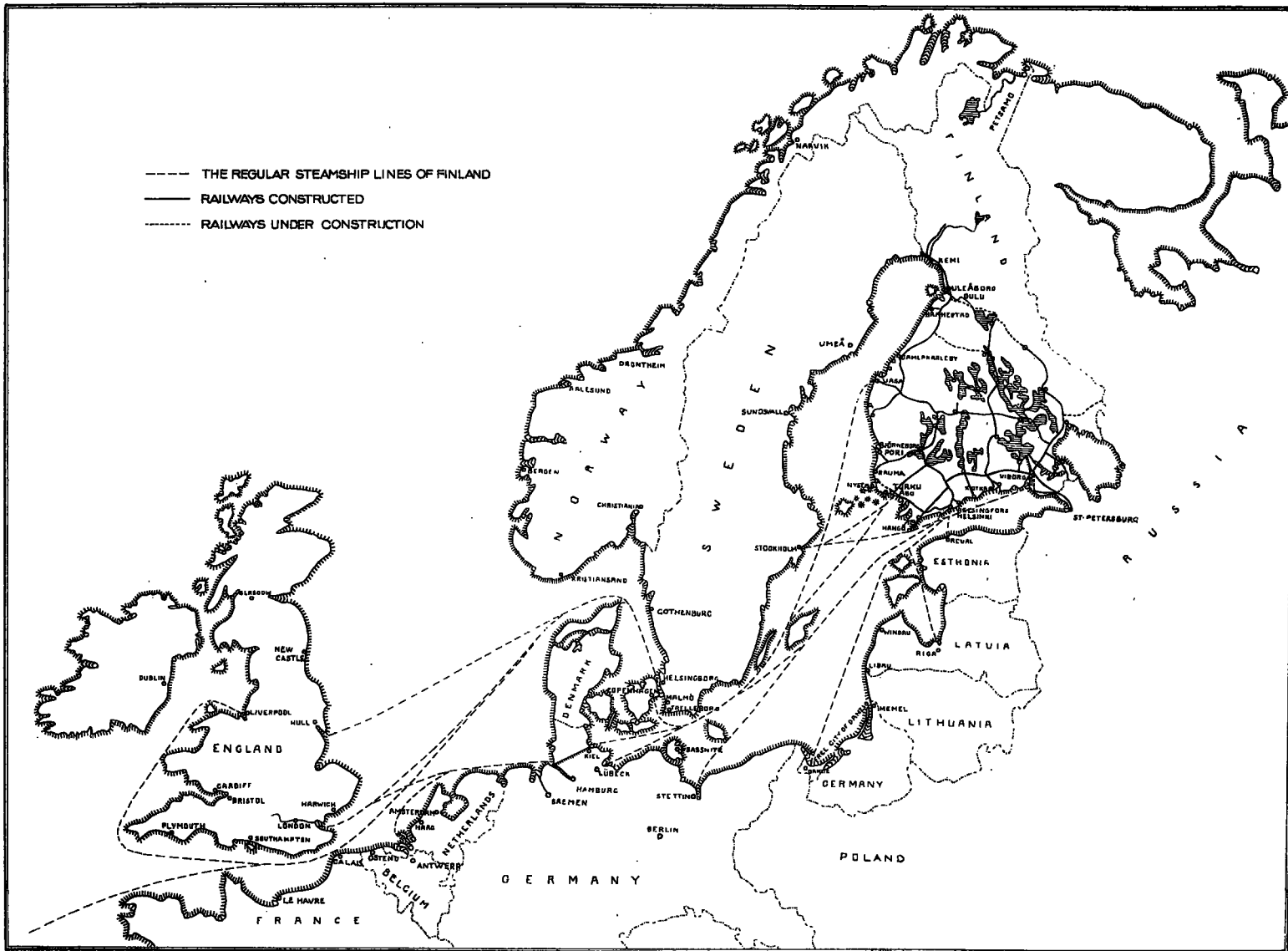
Riga, Danzig; there are also more sailings during this period on the lines to England. Further, during the summer there is a great tramp-steamer traffic to Finland, maintained especially by Norwegian and British steamers, which come to the timber-exporting ports and carry timber cargoes from Finland. The regular lines are maintained by Finnish steamship companies, i. e. The Finland Steamship Company, the Wasa Nordsjö Company, and the Transito and Bore Companies in Åbo. Most of the Finnish steamers, especially those of the Finland Steamship Company, are icestrengthened and are able to break their way through the ice. It is to be noted that a regular traffic to Finland is possible only by means of specially built steamers.

Ocean lines are non-existent, and goods from Finland to U. S. A., South-America, South-Africa, etc., and vice-versa, are mostly shipped to Copenhagen, Hamburg, Rotterdam or London for transshipment from those ports. During recent years, however, certain American and Norwegian shipowners have maintained regular lines from U. S. A. to Finland.

The main lines are Helsingfors—Hangö—Copenhagen—Hull; Åbo—Stockholm; Helsingfors—Lübeck, Helsingfors—Stettin.

These facts should prove that the communication between Finland and other trading countries in Europe is good and that an effective and reliable service has been established.

# THE REGULAR STEAMSHIP LINES OF FINLAND.



## FINNISH GOVERNMENT OBLIGATIONS HELD BY THE BANK OF FINLAND.

The Balance Sheet of the Bank of Finland for December 31st 1920 showed the Bank's holding of Government obligations on that date to be as follows: Government Bonds in Finnish Currency 476.1 million marks, Government Short-term Obligations 421.0 million marks and in addition, under the heading Bonds in Foreign Currency, there were foreign bonds to the value of 63.9 million marks, which the Government had sold to the Bank, on the condition that they were to be repurchased at the same price. The Bank of Finland thus held, at the end of 1920, Government obligations to the total value of 961.0 million marks.

The aforementioned items contained various obligations contracted by the Government.

The main part of the Government Bonds in Finnish currency was formed by 350.0 million marks in Bonds issued by the Government in 1918, for the stabilization of the Bank of Finland. This amount was used by the Bank for writing off from its books of the losses by the depreciation of Russian currency, and by the Red Revolution. The Bank is in undisputed

possession of these Bonds, but actually they have more the nature of a Government subsidy than of debt. The rest of the Bonds in question is made up of the following items: 104.5 million marks in Government Bonds, sold by the Joint Stock banks to the Bank of Finland subject to repurchase, and 21.6 million marks in Bonds bought by the Bank directly from various Government Loans.

Of the Government short-term obligations 351.3 million marks represent Treasury bills bought directly from the Government by the Bank of Finland, and 69.7 million marks Treasury bills rediscounted by the Joint Stock banks.

If the Government Bonds issued for the strengthening of the Bank's position, for the reasons mentioned earlier, be kept apart as a separate item and the rest of the Finnish Government obligations grouped according to whether their repayment to the Bank of Finland devolves on the Government or on the Joint Stock banks, the following division of the Government obligations in the possession of the Bank is obtained:

### GOVERNMENT OBLIGATIONS HELD BY THE BANK OF FINLAND.

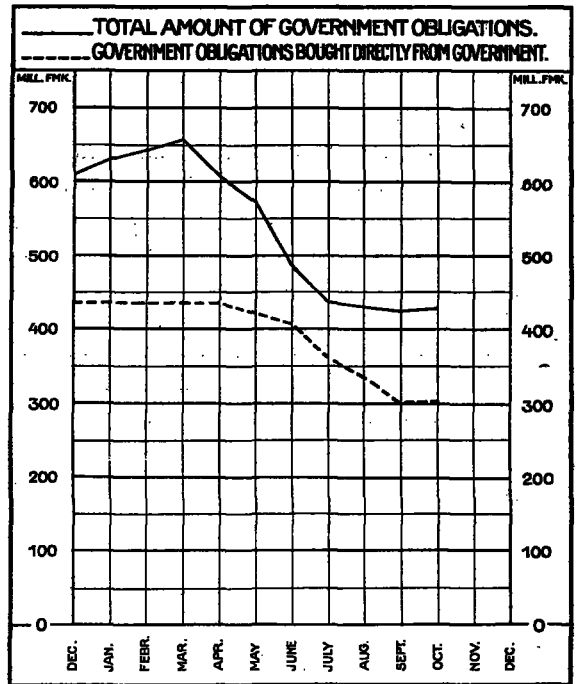
Month	Sold by Joint Stock banks subject to repurchase			Bought directly from Government by Bank of Finland				Total	Month
	Bonds	Treasury Bills Rediscounted	Total	Treasury Bills	Bonds	Bonds in Foreign Currency conditionally Bought	Total		
1920 December	104.5	69.7	174.2	351.3	21.6	63.9	436.8	611.0	1920 December
1921 January	119.8	75.5	195.3	351.3	21.6	63.9	436.8	632.1	1921 January
February	110.8	96.0	206.8	351.3	21.6	63.9	436.8	643.6	February
March	98.8	119.7	218.5	351.3	21.6	63.9	436.8	655.3	March
April	107.3	66.2	173.5	351.3	21.6	63.9	436.8	610.3	April
May	95.3	51.7	147.0	341.3	21.6	63.9	426.8	573.8	May
June	67.3	13.7	81.0	323.3	21.5	63.9	408.7	489.7	June
July	67.5	6.2	73.7	282.3	39.9	45.6	367.8	441.5	July
August	88.8	6.2	95.0	252.3	40.2	45.6	338.1	433.1	August
September	120.4	6.2	126.6	212.3	42.4	45.6	300.3	426.9	September
October	123.4	6.2	129.6	212.3	44.5	45.6	302.4	432.0	October

	Million Marks.
Government obligations sold directly by the Government .....	436.8
Government obligations sold by the Joint Stock banks.....	174.2
Government subsidy to the Bank of Fin- land .....	350.0
Total	961.0

The changes which have occurred in the aforementioned Government obligations (leaving out of account the 350 millions Bond Loan, in which no change has occurred) during the course of the year up to the end of October, appear in the table on the preceding page.

As seen from these figures, the value of Government obligations in the possession of the Bank of Finland increased at first, up to the end of March, by 44.3 million marks, only to decrease again during April-October by 223.3 million marks, or calculating from the beginning of the year, by 179.0 million marks. The decrease was due chiefly to the redeeming by the Government of Treasury bills, both from the Bank of Finland and the Joint Stock banks. The means for this were obtained by the Government partly through a loan in Finnish currency floated in the Scandinavian countries in February, partly from belated taxes from the preceding years, which now accrued.

The shortening of the Government's debt is a gratifying proof of the improvement in the Government finances, but, on the other hand, it has been followed by less agreeable results. Government obligations have since 1918 been included in



the cover for the Bank of Finland's note issue. In consequence, the redeeming of its obligations by the Government was followed by a corresponding decrease in the note issue. This decrease threatened, especially during the present autumn, to continue at a more rapid rate than business could endure considering the strained state of the Money Market. And for this reason, the Government obligations to the Bank of Finland were not reduced in October, but instead of this, a part of the money set aside for this purpose was left on account at the Bank of Finland, another part temporarily deposited in the Joint Stock banks.

## AMENDMENT OF THE PROVISIONS AFFECTING THE BANK OF FINLAND'S NOTE ISSUE.

Prior to the war the following provisions regarding the Bank of Finland's note issue were in force: —

The Bank was authorized to issue notes to an

amount of 40 million marks without a corresponding cover, but the remaining portion of the note circulation had to be fully covered. The Bank's other liabilities payable on demand and

the undrawn amount of advances in current accounts ranked with notes in circulation. The following securities were calculated as cover:

- the gold reserve;
- Finnish silver coins;
- the Bank's credit balances with its foreign correspondents;
- foreign bills; and
- bonds, coupons and bank notes in foreign currencies.

In case of emergency the Government was empowered temporarily to increase the uncovered limit of issue by a maximum amount of 10 million marks.

Regarding the gold reserve it was ordained that it must not fall below 20 million marks. The fact that in Finland the circulation of gold coin was inconsiderable and that the public had every confidence in Bank of Finland notes led to the result that foreign assets, especially deposits, constituted the bulk of assets serving as cover for the note issue. At the outbreak of war, for instance, the gold reserve formed 27.0 per cent and the foreign credit balances 51.1 per cent, of the total cover for the note issue.

During the war the provisions regarding the note issue were amended as follows: on August 7, 1914, an Act came into force extending the uncovered limit of issue to 70 million marks. On April 15, 1915, the conversion of bank notes into gold was suspended. By a law of July 27, 1918, great alterations in the provisions regarding the note issue were introduced. It was ordained that the uncovered limit should be increased to 200 million marks and also that the Government's bonds and other obligations in Finnish currency might provisionally be included in the cover for the note issue. These alterations were necessary, on the one hand, owing to the fact that the Bank of Finland had to cover with Government bonds the losses resulting from the Red Revolution and the depreciation in the value of the Bank's Russian assets; and, on the other hand, by the fact that Government borrowing from the Bank could not be avoided. By a law of December 17, 1920, the amount by which the

President of the Republic might temporarily increase the uncovered limit of issue was augmented from 10 million marks to 100 millions, though this privilege has not been taken advantage of.

In the same way as the loans contracted by the Government were the cause of the amendment of the provisions regarding the note issue, the repayment of the Government's indebtedness has caused further alterations in the same. During the current year the Government paid back a considerable portion of its floating debt, both to the Joint Stock banks and to the Bank of Finland. This has, as stated in the preceding issue of this periodical, resulted in a considerable decrease in the Bank's holding of Treasury bills, both directly discounted and rediscounted. As these bills, as stated earlier, have served as cover for the note issue, their redemption has caused a compulsory contraction in the note circulation. In the present year the note circulation of the Bank of Finland reached its highest point, 1,493.3 mill. marks, on March 15th, but, for reasons stated above, declined afterwards, so that on August 23rd it stood at 1,337.0 mill. marks. By using its note reserve to the utmost for meeting the great demand for money, the Bank of Finland was able to increase the note circulation to 1,401.9 million marks on September 15. On the said date the Bank's holding of Government short-term obligations amounted to 218.4 million marks and the Government would have been in a position further to reduce its indebtedness to the Bank. But the money market being strained, a further reduction in the note circulation was not advisable. Therefore, the decreasing of the Government's debt was discontinued for the time being, and steps were taken for amending the provisions regarding the Bank's note issue in such manner, that the magnitude of the note circulation might be adjusted to the legitimate requirements of the market, irrespective of the repayment of the Government's debt.

On December 30th these new provisions were sanctioned and came into force immediately. Section 18 of the Bank Act has been amended as follows: —

„The amount of notes issued for circulation may exceed the Bank's gold reserve and the Bank's credit balances with its foreign correspondents by at most one thousand five hundred million marks.

Cover for the notes is formed in the first place by the Bank's gold reserve and the Bank's credit balances with its foreign correspondents, further, Finnish silver coin, bills of exchange payable abroad, bonds in foreign currency quoted on foreign Stock Exchanges and coupons and bank-notes in foreign currency.

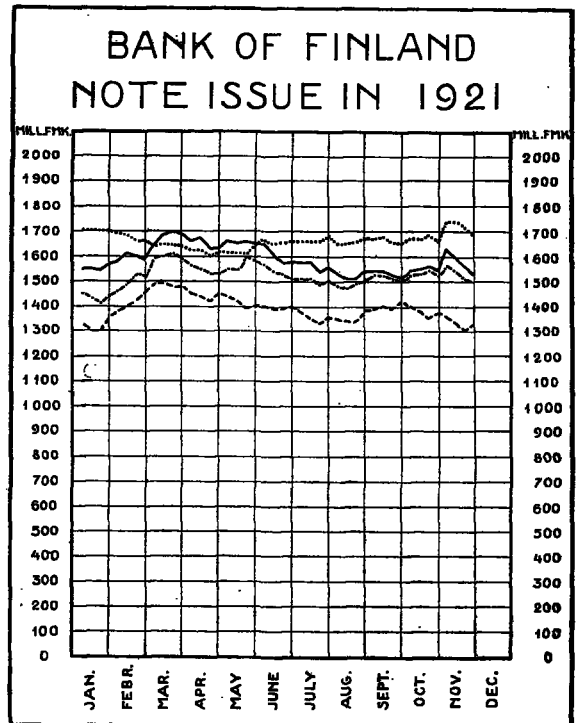
In the measure in which the note issue of the Bank exceeds the resources enumerated above, cover for the notes shall be provided in the form of inland bills, payment of which is due within a period of not longer than three months and for the payment of which at least two persons or firms of good financial standing hold themselves responsible.

Any other bonds or other obligations of the Finnish Government, not included in the above categories, which were in the possession of the Bank at the time of the coming into force of this law may also serve as cover for the note issue.

The Bank's drafts in Finnish money and other liabilities payable on demand, and also the undrawn amounts of advances on current accounts shall also be regarded as notes in circulation.

Should circumstances demand it, the President of the Republic may, on the recommendation of the Supervisors of the Bank, give permission for the amount by which the Bank's note issue may exceed its gold reserve and credit balances with its foreign correspondents to be increased for a given period by a sum not exceeding one hundred million marks."

The most important alteration brought about by the new provisions enumerated above, in the former stipulations regarding the cover for the note issue, is that the portion of the cover on which the magnitude of the note issue depends, now includes no other assets than gold and credit balances abroad. As a result of this and of the fact that the gold reserve is continuedly assessed at its former nominal value, the fiduciary issue



..... Note circulation.  
 - - - - - , and other liabilities payable on demand.  
 \_\_\_\_\_ Right to issue notes.  
 ..... , that the new provisions been in operation during 1921.

has been increased to 1,500 million marks. But this is counterbalanced by the innovation that also the fiduciary issue is covered by assets readily realizable. The stipulation that all liabilities payable on demand rank with bank notes remains unaltered.

The aforementioned alterations will have important consequences: The limiting of the assets covering the note issue in the manner mentioned makes the issue of notes quite independent of the State finances. On the one hand, the redemption of the Government debt does not any longer necessarily bring with it a corresponding decrease in the note circulation, and, on the other hand, an increase in the note circulation against Government securities has become impossible. Government securities together with other, principally inland assets, can



serve as supplementary cover only for the portion of the note circulation which is not covered by gold or credit balances abroad, and, in addition, merely those Government securities, which were in the possession of the Bank on December 30, 1921, are here intended. A continuing inflation through Government borrowing has thus become impossible. Nor can the note circulation be increased in excess of the note reserve which arises at the time of the stipulations mentioned coming into operation, otherwise than by an increase in the gold reserve or the credit balances

abroad. The aim, however, is not to bring about a permanent increase in the note circulation, but only to make natural, periodic fluctuations possible. As is seen from the graphical statement appended, the right of issue, had the new stipulations been in force from the beginning of the present year, would have been even smaller during the period March—May than it was under the former provisions. In addition, owing to the fact that under the new regulations the issue of notes is comparatively less elastic, the Bank has to keep a larger note reserve.

## THE PURCHASING-POWER PARITY OF THE FINNISH MARK AND THE EXCHANGE RATES.

BY

O. K. KILPI, PH. D.

PROFESSOR AT THE FINNISH COMMERCIAL HIGH-SCHOOL OF HELSINGFORS.

During the last three years the value of the Finnish mark, as shown by the quotations of the rate of exchange for the various currencies of Scandinavia and the Western Powers, has rapidly depreciated. With regard to the pound sterling and the Swedish Crown this fact will appear from the following:

One pound sterling equalled

Anno 1919 (average)	66: 97 Fmk
„ 1920 „	105: 43 „
„ 1921 „	197: 69 „

Contrariwise, the Stockholm quotations in Crowns per 100 Fmk were

Anno 1919 (average)	29: 54 Sw. Cr.
„ 1920 „	18: 75 „ „
„ 1921 „	9: 37 „ „

From this it will be seen that for the pound sterling an increasing number of marks had to be paid, and for the Finnish Mark a decreasing number of Swed. Crowns.

Matters being thus, there is perhaps reason to enquire into whether this great depreciation of the value of the Finnish Mark has its foundation in a decreased purchasing-power in its own country corresponding to the changes which have occurred in the purchasing-power of the various other currencies in their respective countries. This is best done by calculating a parity of purchasing-power between the currencies of Finland and these countries. Should it then be found that a sufficient reason for the continuing depreciation of the Finnish Mark is not to be found on the basis of this parity, it must be concluded that other causes have influenced the development of our currency. Of such causes, the following are generally mentioned as being of the most importance, viz., the development of the balance of payment and of the ratio between the supply and demand of money, mistrust of the political or economic state of the country, speculation on the Money Market, etc.

In the following a series of calculations will be given showing the various phases of development of the parity of purchasing-power between

the Finnish Mark and the pound sterling and the Finnish Mark and the Swedish Crown. One preliminary remark must, however, be made regarding these calculations. The parity of purchasing-power is reckoned here on the basis of the official cost of living index-numbers of the respective countries<sup>1)</sup>, and the conclusions drawn up in this article assume parity results arrived at in this manner to answer the purpose of these calculations. Theoretically, it would perhaps be more correct to use, in the controlling of the exchange rates, figures based on wholesale prices. No serviceable wholesale index-numbers are, however, procurable for Finland. The indices for import and export goods published in this periodical (see page 15) are useless as a basis for a criticism of exchange rates, as they are themselves directly dependant on these rates.

The results of the calculations for each individual month are shown in the diagrams attached to this article. But in order to obtain a general view of the main directions of development in this connection a few annual averages are added in the following.

The degree in which the depreciation in value of the Finnish Mark in exchange quotations abroad can be explained by a decrease in its purchasing-power at home, as mirrored by the cost of living, is shown in the following figures:

One pound sterling

	cost (according to actual quotation) Fmk.	should have cost (according to parity of purchasingpower) Fmk.
Anno 1920 (average)	105: 43	94: 90
„ 1921 „	197: 69	122: 42

The pound sterling thus cost nearly 90 % more in 1921 than in 1920, whereas the parity of purchasing-power stood at barely 30 % over that for 1920.

Still more clearly is this disparity in the development of the actual quotations in the parity of purchasing-power apparent in the quotations for the Finnish Mark on the Stockholm Exchange,

<sup>1)</sup> The Labour Gazette (United Kingdom), Sociala Meddelanden, published by K. Socialstyrelsen (Sweden), Sosialinen Aikakauskirja (Finland).

as the following annual (unweighted) averages will show:

	cost (according to actual quotation) Swed. Crowns	should have cost (according to parity of purchasingpower) Swed. Crowns
Anno 1919 (average)	29: 54	approx. 27: 95
„ 1920 „	18: 75	21: 29
„ 1921 „	9: 37	16: 09

The theory, according to which exchange rates tend to approach the parity of purchasing-power cannot thus be said to apply to the Finnish Mark. Rather the opposite. The actual quotations have been constantly drawn further away from parity in this sense and in a direction unfavourable to the Finnish Mark. Thus, the great depreciation in the value of our currency can only partly be put down to the decrease in its purchasing-power at home.

It is beyond the scope of an article like the present to attempt a detailed elucidation of the possible economical causes for the depreciation of the Finnish Mark beyond the point which its purchasing-power would suggest. Theoretically, the nearest explanation is that this extra depreciation is a result of the changes in the proportion of supply and demand between Finland's currency and other currencies. The figures to hand suggest also that the real reason for the state of affairs in question is more to be sought in the supply and demand for currency during these last years than in any weakening of the economic foundations of our country. Least of all is this decline in the proportion of supply and demand between Finnish and other currencies to be explained by our trade balance. The latter has each year improved. The surplus of import has gone down from 1,630 mill. marks in 1919 to 197 mill. in 1921. More easily is a reason to be found in certain items on the debit side of our balance of payment which have grown side by side with the deterioration of our currency, but which have lately shown signs of improvement. To go still further and show the enrichment or impoverishment of the country, i. e., the growth or decline of the national wealth, a knowledge of the whole

of our economic balance would naturally be necessary.

It might be asked: In what manner does the undervaluation of Finnish currency in the western markets compare with the quotations for other countries; if the parity of purchasing-power be applied to these?

A comparison of the quotations on the London Exchange with the above parities in Dec., 1921, shows two different groups of States to exist:

I Group: Currency *overvalued* in view of parity of purchasing-power (e. g. U. S. A., Canada, Sweden).

II Group: Currency *undervalued* (France, Italy, Finland, Germany).

To prove the above, the following comparison is appended, from which will be seen (besides parity in gold for the £) the actual quotation and the parity of purchasing-power of the £ in the currency of the respective countries<sup>1)</sup>.

<sup>1)</sup> In calculating parity of purchasing-power the following indices have been used: Board of Trade (United Kingdom); Bureau of Labor (U. S. A.); Dept. of Labor (Canada); Svensk Handelstidning (Sweden); Statistique Générale (France); Bachi (Italy); Frankfurter Zeitung (Germany). The figures for Canada and Italy refer to Nov. 1920. The indices for each of these countries are the same as those used by Crump in his calculations for 1919 and 1920. Comp. Norman Crump: *A. Review of Recent Foreign Exchange Fluctuations*. Journal of the Royal Statistical Society. London, May 1921. Page 426/—. London quotations are given in monthly averages struck from the average quotations on five different days and taken from *The Economist*.

	Parity in gold for £	Paid for £ (according to actual quotation)	Should have been (accord. to parity of pur.-power)
--	----------------------	--	--

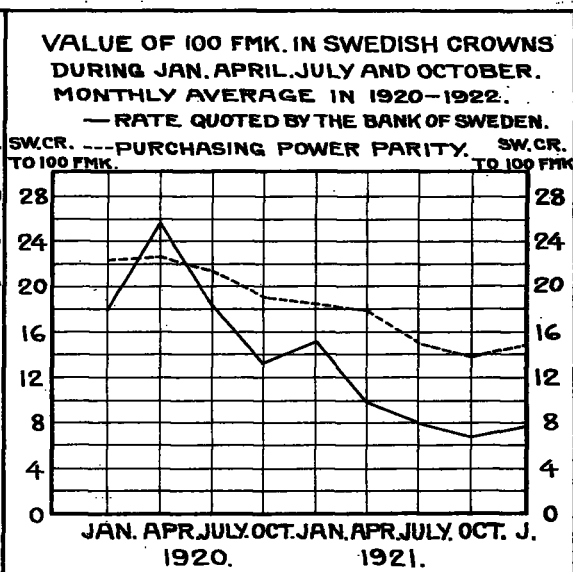
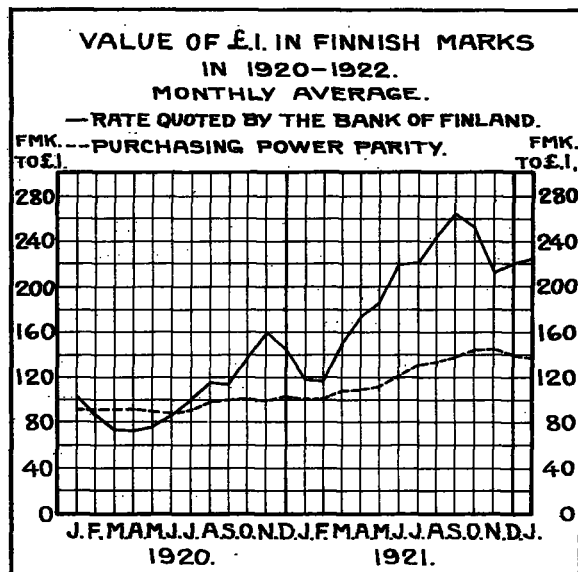
## I.

U. S. A. Doll. . .	4: 86 <sup>2</sup> / <sub>3</sub>	4: 15	4: 24
Canada „ . . .	4: 86 <sup>2</sup> / <sub>3</sub>	4: 35	4: 64
Sweden Crowns	18: 16	16: 90	18: 27

## II.

France Francs . .	25: 23	53: 34	47: 93
Italy Lire . . . . .	25: 23	96: 12	85: 26
Finland Fmk . . . .	25: 22	218: 92	139: 78
Germany Rmk . .	20: 43	801: —	406: 68

So interesting as such calculations are, it is well to remember that, at least with regard to the parity of purchasing-power, they can only be approximately accurate. This will be seen already from the fact that in those countries where several wholesale-price indices are published, these differ greatly from one another at times. A calculation of the parity of purchasing-power can thus give different results, depending on which index has been used. The same applies to cost-of-living indices. These also, owing to the different methods used in their formation, cannot always be compared with exactitude, so that strict accuracy cannot be expected from them either.



## FINNISH GOVERNMENT FINANCES.

### 1. STATE FINANCES IN FINLAND BEFORE THE WAR AND DURING THE YEARS 1918—1921.

The foundations of the State finances of Finland are already old. Finland has, it is true, been an independent state only since 1917, but ever since the year 1809, when Finland became a part of the Russian Empire, a wide autonomy has been enjoyed, comprising every field of state activity, with the exception of an independent foreign policy. Thus, Finland has for over a century had the control of its own State finances. The two countries, Russia and Finland managed their money matters independently of one another.

Before the war, the State finances of Finland were in an exceptionally healthy and safe condition. The annual balances showed regularly a surplus, from which considerable funds were established. The Public Debt, consisting solely of foreign loans, was exceedingly small, about 173.0 mill. gold marks at the end of 1913. The whole of the Public Debt had been used for the building of railways. The military burden was small; governmental expenditure was directly assigned to the service of productive, economical and cultural aims. The system of taxation was certainly old-fashioned, great importance being attached to the import duties of articles for mass-consumption (not, grain however), but the total burden of taxation was exceptionally light.

The first years of an independent Finland were far from showing as rosy a picture of the State finances as that just described.

In the first place, the decrease in the value of Finnish currency has greatly increased each item in the field of State finances also. Secondly, independence brought with it a host of new expenses of considerable extent, such as those needed for the upkeep of an army and for representation abroad. And in the third place, the struggle in which the country was involved during the first months of its independence (the spring of 1918), against the Russian and local bolsheviks, caused a great increase in the Public

Debt and brought with it other disturbances in the regular course of State finance, the effects of which have been felt up to quite recent times.

Certainly, budgets were drawn up, even during the most difficult initial years, in which expenditure was met either by actual income or by long term loan. But for the years 1917—1918 the budgets could not be drawn up in time, neither could it be avoided that the collecting of the new, partly once for all, partly annual taxes was delayed for two, in some cases three years. In the meantime, the administration of the State finances was forced, in order to keep its coffers filled, to issue chiefly short term internal loans, for the most part from the Bank of Finland, which increased for the purpose its note issue. Government loans from the Bank of Finland increased steadily up to about the middle of 1920, but since then have decreased considerably.

The condition of the State Finances has improved rapidly each year. This will be seen from the appended table and the diagram drawn up from this, showing the sources of Government income. The information for 1913—1920 has been taken from the annual Balance Sheets of the Government, that for 1921—22 from the respective budgets. As the value of the present paper mark is about one-tenth of the gold mark, the figures for 1913, for the sake of a truer comparison, have been multiplied by ten in the diagram. The growth in the totals for 1918—1920 is due to the fall in the value of our currency, which partly continued during these years. The table includes the income from the ordinary, extraordinary, and where such has occurred, additional budgets. Extraordinary revenue, i. e., revenue for the one occasion only is contained in the item „miscellaneous taxes”, with the one exception, however, that the once for all property tax appearing among the 1918 and 1919 budgets has been included among the other direct taxes. In criticizing the various items it must be remembered that the principle of gross entries is consequently followed in the Finnish State Budgets.

## FINNISH STATE REVENUES.

	According to Balance of Accounts								According to Budget			
	1913		1918		1919		1920		1921		1922	
	Mill. marks	%	Mill. marks	%	Mill. marks	%	Mill. marks	%	Mill. marks	%	Mill. marks	%
1. Revenue derived from State property .....	79.6	43.0	164.2	13.1	383.5	22.8	538.9	25.8	643.9	25.8	611.3	28.1
2. Direct taxes .....	6.5	3.5	363.9	29.1	349.1	20.8	357.4	17.1	344.9	13.9	464.0	21.3
3. Indirect taxes .....	72.3	39.1	16.8	1.4	314.3	18.7	487.0	23.3	757.0	30.4	688.0	31.6
4. Miscellaneous taxes .....	5.3	2.9	32.5	2.6	71.8	4.3	122.1	5.8	139.8	5.6	156.4	7.2
5. Charges .....	11.5	6.2	26.8	2.1	47.8	2.8	78.7	3.8	108.6	4.4	96.9	4.4
6. Miscellaneous receipts .....	7.2	3.9	117.1	9.3	159.3	9.5	247.6	11.8	252.4	10.1	152.2	7.0
7. Balance from preceding years....	2.5	1.4	—	—	59.7	3.5	139.4	6.7	8.0	0.3	7.9	0.4
8. Loans .....	—	—	530.9	42.4	296.4	17.6	118.4	5.7	237.5	9.5	—	—
Total revenue	184.9	100.0	1 252.2	100.0	1 681.9	100.0	2 089.5	100.0	2 492.1	100.0	2 176.7	100.0

In an examination of the development of Finland's State finances during these last years by means of the appended information, there is reason to note specially in what degree expenditure has been met by actual income and in what degree recourse has been made to loans. It will then be observed that in the 1918 Balance Sheet 530.9 mill. marks, or 42.4 % of the receipts was made up by loans. This large amount of loans is due partly to expenses incurred in the suppression of the revolution, partly to the fact that Customs Duties, owing to the decrease in foreign trade and the fall in the value of our currency, were exceptionally small. The whole amount was not, however, used up in the ordinary course of consumption, a part, 120 mill. marks, being handed over for the needs of the railways. In the year 1919, loans had gone down to 296.4 mill. marks, or 17.6 of the total receipts. The whole of the 1919 loans were used for extraordinary and, excepting in the case of 72.5 mill. marks for purely productive purposes, e. g., the procuring of a share-majority for the State in large industrial concerns owning wide areas of land, in the purchase of land and waterfalls for the State, and for the building of new railways. Loans in 1920, the amount of which was 118.4 mill. marks, did not rise to more than 5.7 % of the total receipts. This money, also was used chiefly for extraordinary expenses, viz., about 100 mill. marks as compensation to private individuals for losses incurred during the

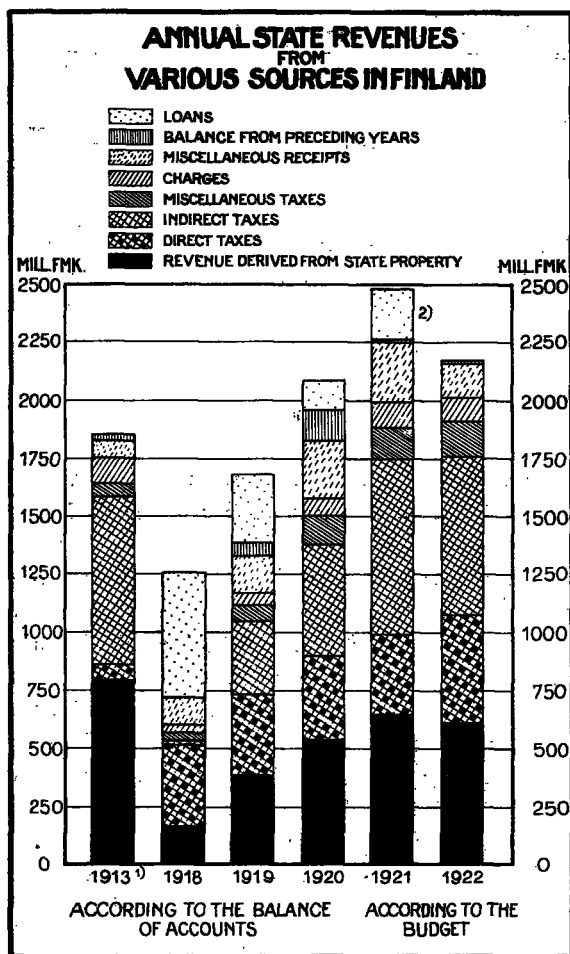
revolution, 4.5 mill. marks for the purchase of an industrial concern and the rest for different purposes.

After these considerable decreases in the amount of loans, the attention is drawn to their great amount in 1921. But here the increase is only ostensible. The whole amount of loans, 237.5 mill. marks, is contained in the additional budget for the year in question, and was used solely for writing off depreciated assets, especially Russian assets. No loans whatever were used in 1921 for actual State expenditure.

In the year 1922 loans finally disappear from the budget. All expenditure, both ordinary and extraordinary, is met by actual income.

The above examination shows thus that the part played by loans in Finland's State finances has rapidly decreased and that such have in general no longer been used for current expenditure, but almost entirely for the covering of extraordinary expenses, and have often been destined for the service of productive aims. The use of loans for such purposes is altogether natural. What has been abnormal has been the large amount of such extraordinary items, and in some years their exceptional character, and further, that in a land so poor in capital as Finland, the greater part of the recent Government loans have been taken up within the land.

For the sake of a more detailed picture of the State finances of Finland at the present time, let us examine the budget for 1922 more closely.



<sup>1)</sup> The 1913 figures are here multiplied by ten.

<sup>2)</sup> The loans in 1921 were used for writing off Government's Russian assets.

## 2. THE BUDGET FOR 1922.

Approved by the Diet on Dec. 29th, 1921, the budget is divided as usual into an Ordinary and an Extraordinary Budget. The latter contains such expenditure and receipts as appear once only. The totals in the budget are as follows:

REVENUE	Mill. marks
Ordinary revenue.....	2,127.5
Extraordinary revenue.....	41.3
Balance from preceding years .....	7.9
<b>Total</b>	<b>2,176.7</b>

## EXPENDITURE

	Mill. marks
Ordinary expenditure .....	1,931.3
Extraordinary expenditure.....	245.4
<b>Total</b>	<b>2,176.7</b>

As will be seen from the foregoing, the ordinary revenue is greater than the ordinary expenditure, so that the greater part of the extraordinary expenditure can even be met by ordinary receipts. Extraordinary receipts appear in the foregoing table, on the basis of which we shall proceed to examine the revenue side, in group 6 „Miscellaneous receipts”.

The group *Revenue from State property*, 611.3 mill. marks, appearing in the first table, comprises 28.1 % of the total revenue. It must here, however, be remembered, as pointed out earlier, that this revenue is set down gross. The greater part of this item is formed by revenue from the State Railways, 443.6 mill. marks. Next comes revenue from State forests which, at a very cautious estimate, has been set down at 140.8 mill. marks. Other revenues included in this item, viz., from estates, fishing-waters, buildings, canals and interest on capital are smaller.

*Direct taxes*, the amount of which is 464.0 mill. marks (21.3 %), are for the most part, 430 mill. marks, made up of receipts from the new progressive income and property tax, which appears for the second time in the 1922 budget. The income tax commences with a tax of  $\frac{1}{3}$  % on an income of 3,000 marks and finishes with 20 % on incomes of over 1 mill. marks. The property tax begins with a tax of 1 ‰ on a property valued at 20,000 and finishes with 6 ‰ on property over 20 mill. marks. For the current year, however, the property tax has, for budget reasons, been increased by 100 %. The other direct taxes are mostly old-fashioned and the revenue yielded by them small.

*Indirect taxes*, amounting to 668.0 mill. marks (31.6 %), comprise as their most important item Customs Duties, which are calculated to bring in 553.0 mill. marks. Import duties make up 531.0 mill. marks of the said amount, and export duties 20.0 mill. marks, the remainder being made

up of various charges made by the Customs Department. Excepting Customs Duties, the only other indirect taxes are the Excise on tobacco, receipts 120 mill. marks, and the Excise on matches, receipts 15 mill. marks.

Of the *Miscellaneous taxes*, 156.4 mill. marks (7.2 %), the only item worthy of mention is the Stamp duties, which are calculated to yield 150 mill. marks.

The group *Charges*, 96.9 mill. marks (4.4 %), comprises the revenue from Postal, Telegraph and Navigation charges. The largest item is the postal charges, 59.0 mill. marks. In this connection, it may be mentioned that those State institutions which are of the nature of business enterprises are generally in a position to cover their expenditure by their own receipts, the railways

yielding even a small surplus for amortization and interest on their capital.

*Miscellaneous receipts* reaches 152.2 mill. marks (7.0 %), of which 111.0 mill. marks are ordinary in character and 41.2 mill. marks are included in the extraordinary budget.

Among receipts of the last-named character in 1922 appears, as in the foregoing years, an item *Balance from preceding years*, this time 7.9 mill. marks (0.4 %). In earlier years this balance was made up by funds accumulated already during the time of peace. In recent years the balance has accrued principally from belated taxes collected after the annual balance has been struck.

The *expenditure* side of the budget shows the following main groups:

Main Groups	Ordinary Expenditure	Extraordinary Expenditure	Total	Percentage of Total Expenditure
	Mill. Fmk	Mill. Fmk	Mill. Fmk	Per cent.
1. President of the Republic .....	1.2	—	1.2	0.1
2. Diet .....	5.6	—	5.6	0.3
3. Government .....	8.2	—	8.2	0.4
4. Chancellery of Government .....	6.4	0.3	6.7	0.3
5. Ministry for Foreign Affairs .....	21.2	0.8	22.0	1.0
6. Ministry of Justice .....	53.5	1.5	55.0	2.5
7. Ministry of the Interior .....	92.0	32.7	124.7	5.7
8. Ministry of Finance .....	24.3	0.3	24.6	1.2
9. Ministry of Defence .....	273.0	33.7	306.7	14.1
10. Ministry of Education .....	192.7	3.6	196.3	9.0
11. Ministry of Agriculture .....	123.9	22.0	145.9	6.7
12. Ministry of Communications .....	522.2	133.5	655.7	30.1
13. Ministry of Trade and Industry .....	25.9	6.5	32.4	1.5
14. Ministry of Social Affairs .....	43.5	10.5	54.0	2.5
15. Miscellaneous expenditure .....	<sup>1)</sup> 261.7	—	261.7	12.0
16. Pensions and relief payments .....	33.2	—	33.2	1.5
17. Public debt .....	237.8	—	237.8	10.9
Transferred to funds .....	5.0	—	5.0	0.2
<b>Total</b>	<b>1 931.3</b>	<b>245.4</b>	<b>2 176.7</b>	<b>100.0</b>

If the expenses for State institutions which are covered by their own revenue are left out of account, the total shown by the ordinary budget is about, 1,320 mill. marks. If, in addition, the special increases to Government officials on account of the high cost of living included among miscellaneous expenditure be divided among the various branches of Governmental administration, the grand total of ordinary net

expenditure mentioned above will be found to be divided among the various activities of the State approximately as follows: Government, Civil administration and Judiciary 309 mill. marks (23 %), Home defence 298 mill. marks (23 %), Education 227 mill. marks (17 %), National economy 193 mill. marks (15 %) and Public Debt 238 mill. marks (18 %).

Of the extraordinary expenditure for 1922, 155

<sup>1)</sup> Includes Special increases to Government officials on account of the high cost of living 217.0 mill. marks.

mill. marks or 63 % are taken up by railways and other public works. Home defence accounts for about 34 mill. marks or 45 % of the extraordinary budget.

Calculated per head of population the ordinary expenditure of the State works out at about 400 marks, and ordinary and extraordinary net expenditure together at about 470 marks.

## THE RAILWAYS OF FINLAND.

J. H. KALA, M. A.

HEAD OF THE STATE RAILWAYS STATISTICAL OFFICE.

### THE FIRST RAILWAYS.

Recently, on March 17th, the sixtieth anniversary of the opening for traffic of the first railway in Finland was celebrated. The railway in question was built by the State from the capital, Helsingfors 108 kilometre into the interior, to the town of Hämeenlinna (Tavastehus, see map), from which place a system of waterways suitable for navigation begins. The cost of this railway per kilometre of railroad worked out at over £ 5,000, as cheaper methods of building adopted to the demands of this country were then unknown, and in the beginning the new railway paid its way badly.

The building of railways however was not abandoned, and in 1870, an additional 373 kilometres was opened for traffic — a branch line from the former railway to St. Petersburg via Viborg — connecting Finland with the railway system of Europe.

This new railway was built at a much smaller cost, and gradually still cheaper methods were evolved, so that the railway from Tammerfors to Vasa with its stations and rolling stock was accomplished at a cost of less than £ 2,000 per kilometre.

Before long, railways were being built by private enterprise. As financial enterprises, these also failed in the beginning with the result that one of these pioneer-railways was taken over by the State already in 1875.

In the year 1892, thirty years after the opening of the first railway in the country, there were in Finland 1,974 kilometres State railways and 33 kilometres private railways, together 2,007

kilometres of railway. Of the seaports, Helsingfors, Hangö, Åbo, Vasa, Uleåborg, Kotka and Viborg were at that time in connection with the railway-system; in the interior the railway reached as far as Kuopio.

### RAILWAY-BUILDING IN 1892—1922.

The following thirty-year period showed an increased activity in the building of railways, the total extent growing from 2,007 to 4,360 kilometres. Besides the State railways, which now begin to include in their network the uttermost corners of the land, reaching in the north to the „Porch of Lapland”, Rovaniemi, several private lines had been built. The years round 1900 were especially active in the latter respect: Brahestad, Raumo, Lovisa and Fredrikshamn obtained private lines and a little later even the first electric railway was built. A couple of the private lines have later come into the possession of the State, and one was sold during the war to Russia, for use as a field-line, so that the total length of privately-owned line, which was at one time 374 kilometres, is now 295 kilometres, of which 116 broad-gauge railway. The whole of the State railways are broad-gauge (1.524 metres = 5 feet).

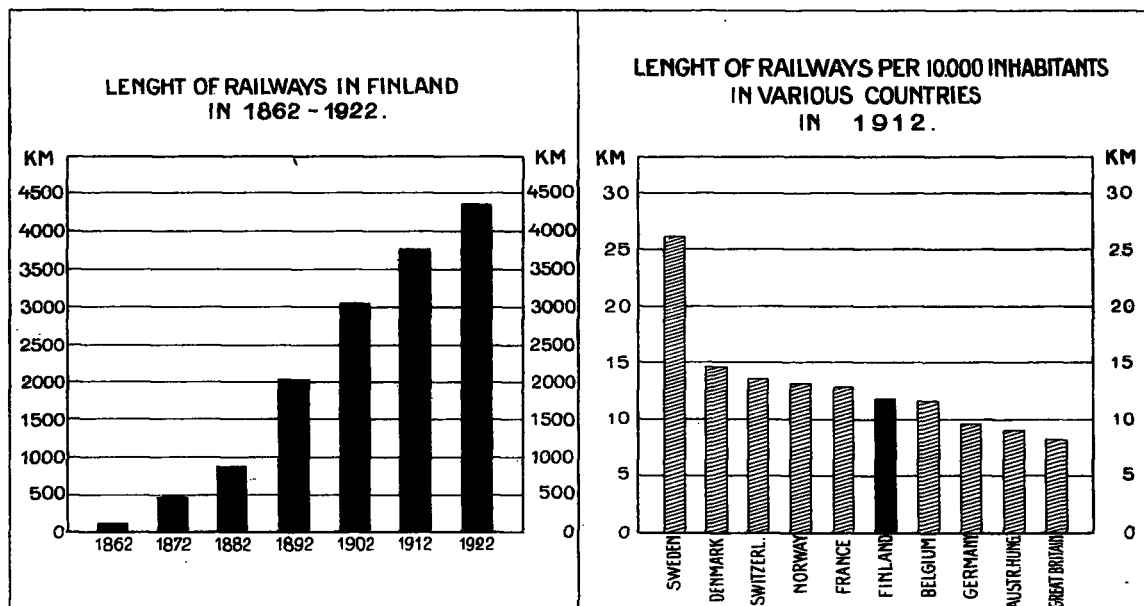
Gradually, railway-building became dearer again with the rise in the price of land which had to be redeemed and in the wages paid to labour, often, also, considerable difficulties had to be overcome: i. e., two tunnels, one 1.23 kilometres in length, long crossings over lakes in two different spots, many large bridges etc. Further, Finland was compelled, for the sake of



international connections, to take part in the building of a railway bridge over the Neva at St. Petersburg and the bridge over the Torneå River on the Swedish frontier.

The aforementioned total length of railway, 4,860 kilometres, the building of which has been spread over several decades, as shown by the graphical statement attached, works out at 12.7 kilometres per 10,000 inhabitants. Compared to other European countries, Finland is not

amongst the last ones in this respect. Sweden, Denmark, Switzerland, Norway and France are ahead of us, but countries such as Belgium and Great Britain even fall behind (see graphical statement on the matter). Naturally, the situation alters if the length of railways is compared with the area of these countries: per 100 sq. kilometres of area Finland has only 1.1 kilometre of railway, while Belgium has over 29, Great Britain over 8 and even Sweden can show over 3.



### DEVELOPMENT OF TRAFFIC.

From an extremely modest beginning (only three trains per week were run at first from Helsingfors to Hämeenlinna, (Tavastehus) and vice versa) traffic on the Finnish railways has during the course of years developed considerable proportions, taking into account the circumstances in our country.

As recently as 1892, traffic on the State railways could be kept up by 160 locomotives, 424 passenger-carriages and 4,045 goods-waggon, the latter being in addition small in size, almost wholly with two axles only, and the locomotives light. Now the number of locomotives is 570, that of the passenger-carriages 1,023 and of goods-

waggon, in round numbers, 15,300. The majority of the locomotives, and the passenger-carriages and goods-waggon almost without exception, are of Finnish make.

It must also be taken into account regarding the present rolling-stock, that it has not yet recovered its equilibrium after the blow dealt it by the Red Revolution, when 58 locomotives, 400 passenger-carriages and, roundly, 5,000 goods-waggon were taken over the frontier into Russia.

In setting forth other phases of development in our railway traffic, we shall follow only the results obtained on the State railways.

The mileage achieved at different times on the State railways is shown in the following (in thousands train-kilometres):

	Passengertrains 1,000 kilometres	Goodstrains	Total
1871 .....	555	301	856
1881 .....	1,059	737	1,796
1891 .....	2,522	1,594	4,116
1901 .....	6,151	3,629	9,780
1911 .....	8,848	4,973	13,821
1921 .....	9,042	6,307	15,349

The carriages contained in the foregoing trains have covered (in million axle-kilometres)

	Passenger-carriages	Goods-waggons	Total
1891 .....	50.2	91.3	141.5
1901 .....	120.4	222.7	343.1
1911 .....	181.4	352.1	533.5
1921 .....	186.9	443.3	630.2

As will be observed from the two foregoing tables, the increase in the volume of traffic was specially discernible in the years lying between 1891 and 1901, this depending, besides on the favourable times in general, also on the fact that the tariffs for both passenger and goods traffic were reduced in 1897 to an appreciable extent.

The number of passengers carried (in millions) and the weight of goods freighted (in thousands of tons) will be seen from the following table:

	Passengers Millions	Goods 1,000 tons
1871 .....	0.6	180
1881 .....	1.7	453
1891 .....	2.7	1,034
1901 .....	7.2	2,308
1911 .....	15.2	4,470
1921 .....	17.9	4,980

The figures for 1921 cannot exactly be compared with the foregoing. They are provisional and will slightly increase when all the small accidental accounts have been added. A further factor to be taken into account is that a strip of railway, 32 kilometres in length from the Finnish frontier to St Petersburg, has been given up to Russia, passenger traffic being formerly lively on this line, even though goods traffic

was not especially large. Its profitableness was not very good, either.

#### FINANCIAL RESULTS.

During the time covered by the following table, the revenue, expenditure and net profits of the State railways have been as follows:

	Revenue	Expenditure	Net profits
Million marks			
1871 .....	2.7	1.9	0.8
1881 .....	7.2	4.5	2.7
1891 .....	12.7	8.2	4.5
1901 .....	26.6	21.8	4.8
1911 .....	50.1	36.8	13.3
1921 .....	451.5	395.7	55.8

Regarding the revenue, it is to be noted that it is dependent on passenger traffic to a greater degree than is the case elsewhere. While in other countries a division of the total revenue into 33 % passenger-traffic, 65—66 % goods-traffic and the rest from miscellaneous sources is quite common, with us the revenue from passenger-traffic is often 37—40 %, on some lines even over this proportion.

Despite the great fall in the value of Finnish currency, tariffs have not been raised in nearly the same degree. Since 1911, as has been shown in the foregoing, traffic has clearly increased, but revenue, compared with the present value of money, has not increased. Even then, with the exception of the disturbed period 1917—1918, each year shows a profit from traffic (1920 — 89.8 mill. marks, 1919 — 93.0 mill. marks).

#### PROFITABLENESS OF THE RAILWAYS.

At the end of 1916, when the value of Finnish currency was still near its parity of gold, the capital-value of the Finnish State railways was 502.4 mill. marks. Of this, about 200 mill. marks, or about 40 % fell to the part of capital loaned from abroad. Government loans from abroad had, up to the year in question, been taken up solely for the building of railways. The remaining 60 % of the capital-value of the railways represented means invested in the railways by the State itself. Since then no foreign

loans have been negotiated for the railways, the large amounts of capital used during the latter years for the building of new railways, the procuring of new rolling-stock and for the erection of new buildings on already existing lines have been brought together either by internal loans or taken from the annual revenue of the State.

At the present time, calculating according to the present value of the Finnish mark, the capital-value of the State railways may be set down at approximately 6 milliard marks.

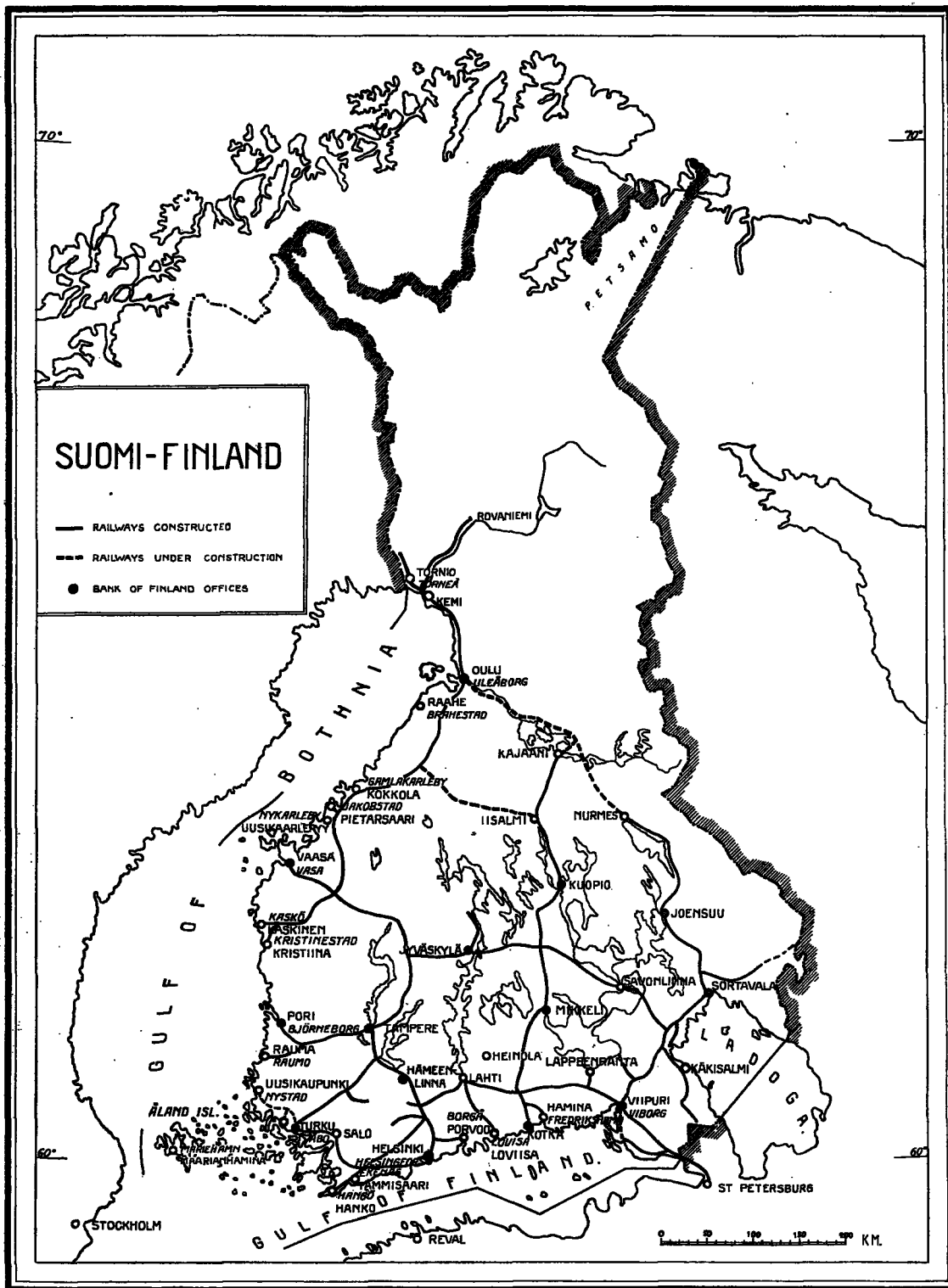
For a capital of this magnitude and with tariffs at their present level, the net profits form anything but a large interest. But a private economical profit has never been sought for in the case of the railways. In consequence of this their significance has been so much greater from the point of view of national economy. By means of the railways, the level of civilization and skill in various trades of the people has been powerfully raised even in the farthest corners of the land. The vigorous upward movement in the business life of Finland during the last decades is above all due to the railways. The rapid means of communication established by the railways has (since the eighties) rendered the modern manufacture of butter and, its export possible, a matter which, especially before the war, has been of prime importance in the foreign trade of Finland. Still greater has the significance of the railways proved in the case of the timber-refining industries, whose output forms the greater part of Finland's export. Not until the railways came was a fully profitable exploitation of the waterfalls and great resources in timber of the interior possible for the service of our timber and paper industries.

## RAILWAYS UNDER CONSTRUCTION.

With a view to the further development of the business life of the country the State is continuing the building of railways. At present, new railway to the extent of 300 kilometres is under construction, viz., 1) from the Carelian railway, N of Sortavala to Suojärvi on the eastern frontier, a line important from both a strategical and an economic standpoint; 2) from Iisalmi on the Savo railway, a connecting-line to Ylivieska on the Uleåborg railway; 3) from Åbo to Nädendal and to Nystad, known for its excellent harbour; 4) from the northern end of the Carelian railway at Nurmes, N of Kajaani and Oulunjärvi Lake to Uleåborg, with a 27 kilometres long branch line to Kajaani; 5) a railway from Viborg to the harbour of Björkö, to which place a line runs already from the east, near the Russian frontier. For these works, the State budget for the present year includes an item of 49.2 mill. marks and for new works on existing railways (for the acquiring of heavier rails, stronger bridges, more powerful locomotives etc.) an item of 50 mill. marks.

Many other new railway schemes await their fulfilment. Of these, the following may be specially mentioned: — the needs of international traffic necessitate a straighter connection with East Finland, for which purpose a line straight from Åbo to Riihimäki will have to be built; a new railway to the Arctic coast, to Petsamo is needed, via either Rovaniemi or Kajaani; a line due E from Viborg to the shore of Lake Ladoga etc., etc.

Railways have been the pet child of the national economy of Finland and seem to preserve this position for themselves in the future also.



HELSINGFORS 1923. GOVERNMENT PRINTING OFFICE.