



# BANK OF FINLAND

*Monthly Bulletin*

**Last fifteen years in the Finnish  
economy and the future outlook**

**Public finance in 1969**

**Change of Government**

**Additional Protocol on the Treaty of  
Friendship, Co-operation and Mutual  
Assistance between Finland and the  
U.S.S.R.**

**Board of Management of the Bank  
of Finland**

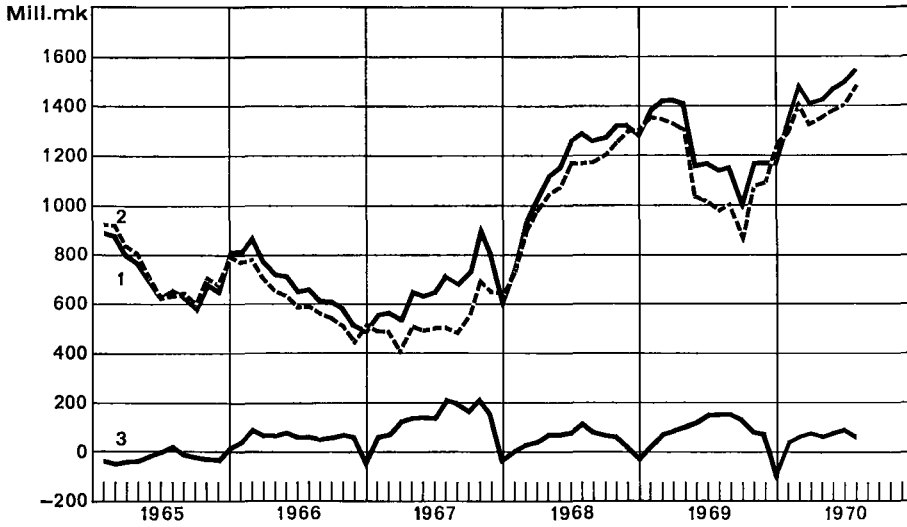
**Hire-purchase terms**

**113 vessels from Finnish docks to 10  
different countries**

**AUGUST 1970**

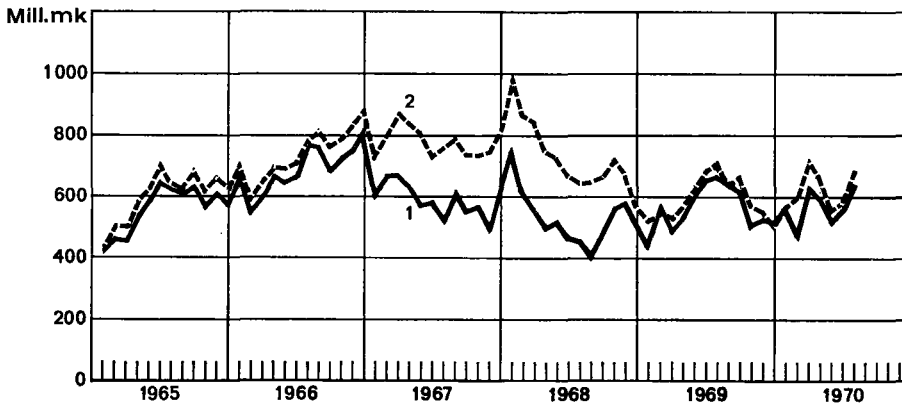
**Vol. 44 No. 8**

Bank of Finland foreign exchange reserve, 1965-1970



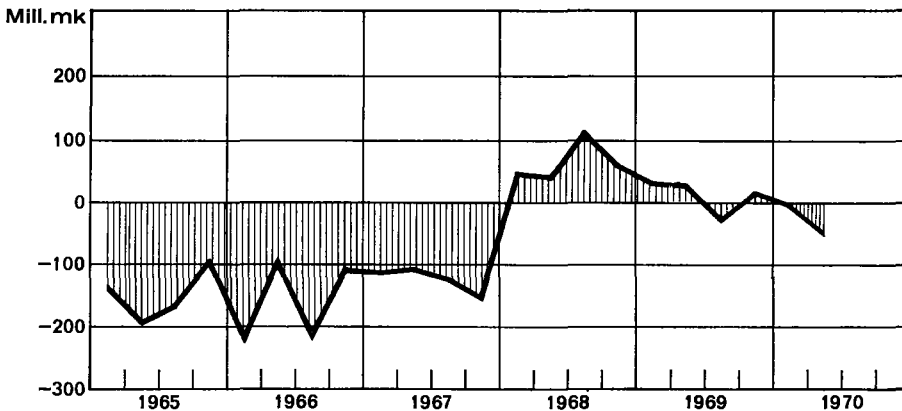
1. Total gold and foreign exchange
2. Gold and convertible currencies
3. Other currencies

Bank of Finland's position in regard to the banks, 1965-1970



1. Net claims on the banks
  2. Discounted and rediscounted bills
- Seasonally adjusted end of month figures

Balance of payments current account surplus/deficit, 1965-1970



Seasonally adjusted quarterly figures

# INDUSTRIAL PRODUCTION

The volume growth of industrial production was almost 13 per cent in 1969 in comparison with the previous year. This percentage is one of the highest after the war; only in 1951 and 1960 did industrial production increase more quickly. The acceleration of the growth rate began towards the end of 1968 and continued steadily throughout 1969. However, some slackening was noticeable in the early part of 1970.

Growth has been fast in all major industrial sectors. At the beginning of 1969 rapid growth occurred primarily in the export and investment goods industries but later in the year the growth rate accelerated in the home market industries. The decline in the growth rate to about 8 per cent in the first part of 1970 can be largely explained by the shortage of skilled labour in the whole industrial sector and by the lack of unutilized capacity in the wood-processing and investment industries in particular.

The following table illustrates changes in the annual volume growth of production in the major industrial sectors.

## CHANGE ON THE PRECEDING SIX MONTHS, PER CENT PER YEAR<sup>1</sup>

	11 68/ 1 68	1 69/ 11 68	11 69/ 1 69	1 70/ 11 69
Total industrial production	7.1	12.8	11.7	8.0
Wood industry	49.6	11.1	10.9	7.5
Paper industry	7.5	10.5	12.8	4.0
Investment goods industry	4.4	35.3	11.1	3.0
Consumer goods industry	7.5	19.0	11.1	10.3
Other raw material industry	7.1	14.7	10.7	11.7

<sup>1</sup> Comparisons have been made on the basis of seasonally adjusted figures.

## WOOD AND PAPER INDUSTRY

Paper industry output has increased quite rapidly since the beginning of 1968, mainly as a result of favourable developments in the export market. The rate of expansion was, however, checked in 1969 as the limit of productive capacity in this sector was approached in the first half of the year and, in addition, the investment projects completed in 1969 aimed rather at raising the degree of processing of products than at expanding production. The importance of the degree of processing is revealed by the fact that the growth in the export of pulp was rather small, although the price of pulp rose considerably faster than that of paper in 1969. Because the degree of utilization of capacity in the paper industry is still high and several large-scale investment projects being implemented will not be completed until 1971—72, the growth rate has declined in the first half of 1970.

In the wood industry a fast growth rate was noticeable towards the end of 1968 and during 1969, its rate of growth exceeding that in the paper industry. In 1970, however, the rate of growth fell. There was even some, presumably temporary, decline in output. The shortage of raw material has not been a limiting factor because after the low volume of fellings in 1967/68 there was a growth of 11 per cent in the felling season 1968/69 followed by a further increase of 8 per cent in 1969/70.

## INVESTMENT GOODS INDUSTRY

The foreign demand for investment goods accelerated substantially in 1968. Even domestic demand for these commodities became brisker at the end of that year. In 1969, an ex-

ceptionally vigorous increase occurred in domestic demand, which was reflected not only in a 20 per cent growth in the output but also in a 33 per cent increase in the imports of investment goods on the previous year. A part of the increase in production went into exports; there was a growth of 24 per cent in the export of metal industry products, which consist mainly of investment goods. The growth of production in the investment goods industries has been fastest in electric apparatus and machinery.

## CONSUMER GOODS INDUSTRY

Diverging trends appear in the development of the various sectors of the consumer goods industry. There was a volume growth of 20 per cent in the production of the footwear, clothing and textile industries in 1969 whereas the corresponding figure for the foodstuffs industry was slightly more than 7 per cent and for the tobacco industry only about 2 per cent. The liberation of the sale of ordinary beer at the beginning of 1969 caused a 32 per cent increase in the output of the beverage industry in 1969. Another marked change in the structure of the consumer goods industry took place as

a result of the establishment of a passenger car factory in Finland at the end of 1969. The annual output target of 15 000 passenger cars will be achieved in the latter half of this year.

## OTHER INDUSTRIES

The growth of production has been brisk in all the more important categories of raw material. The increase was especially sharp in the textile industry, primarily due to the strong expansion of exports; its volume almost doubled in 1969 in comparison with the previous year. In the basic metal industry the limit of productive capacity was approached, for which reason the growth rate did not exceed 15 per cent, although the market situation was exceptionally favourable from the producers' point of view. The volume increase of 10 per cent in the chemical industry in 1969 meant a decline of the growth rate in comparison with the preceding years; the average rate had been 14 per cent in 1963—68.

This year the growth of production in this sector as a whole has continued unchanged. The deceleration of the growth rate in the textile industry has been compensated for by the acceleration of the rate in the chemical industry.

August 31, 1970

## BANK OF FINLAND

Mill. mk

	1969		1970			
	Aug. 29	Dec. 31	Aug. 7	Aug. 14	Aug. 21	Aug. 31
<b>Assets</b>						
Gold and other foreign assets	1 371.2	1 433.1	1 757.2	1 772.0	1 762.3	1 793.8
Gold	189.2	189.4	189.4	189.4	189.4	189.4
Special drawing rights	—	—	92.9	92.9	92.9	92.9
IMF gold tranche	173.3	173.3	194.3	194.3	194.3	194.3
Foreign exchange	864.2	905.0	1 169.2	1 182.8	1 176.3	1 208.2
Foreign bills	90.1	106.3	82.9	84.1	80.9	80.5
Foreign bonds	54.4	59.1	28.5	28.5	28.5	28.5
Claims on domestic banks	716.5	637.1	707.0	621.1	739.9	704.0
Discounted bills	—	—	675.0	594.8	711.8	664.1
Rediscounted bills	601.3	550.3	14.3	10.3	9.0	12.4
Cheque accounts	115.2	86.8	17.7	16.0	19.1	27.5
Other lending	291.1	317.6	278.1	274.4	274.8	275.5
Inland bills discounted						
In foreign currency	18.3	7.3	—	—	—	—
In Finnish marks	174.9	191.6	163.4	159.6	160.5	162.2
Loans	97.9	118.7	114.7	114.8	114.3	113.3
Other assets	199.4	627.0	818.2	875.6	812.9	710.5
Finnish bonds	113.4	126.5	423.7	480.7	425.3	321.2
Finnish coin	12.7	5.5	10.3	10.8	10.9	11.1
Currency subscription to Finland's quota in the IMF	—	351.7	330.7	330.7	330.7	330.7
Other claims	73.3	143.3	53.5	53.4	46.0	47.5
<b>Total</b>	<b>2 578.2</b>	<b>3 014.8</b>	<b>3 560.5</b>	<b>3 543.1</b>	<b>3 589.9</b>	<b>3 483.8</b>
<b>Liabilities</b>						
Notes in circulation	1 166.6	1 298.4	1 217.1	1 224.2	1 235.4	1 237.6
Liabilities payable on demand	99.6	123.5	96.7	97.3	150.4	92.1
Foreign exchange accounts	57.5	81.0	71.7	71.6	71.3	65.8
Mark accounts of holders abroad	19.6	12.2	11.7	11.5	12.1	12.1
Cheque accounts						
Treasury	6.8	3.7	0.4	1.0	23.4	1.0
Post Office Bank	2.7	3.6	0.8	1.0	32.1	1.1
Private banks	0.6	10.1	—	—	—	—
Other	1.3	1.0	1.6	1.5	1.2	1.5
Other sight liabilities	11.1	11.9	10.5	10.7	10.3	10.6
Term liabilities	400.8	307.6	804.2	773.8	749.2	690.1
Foreign	14.6	7.7	—	—	—	—
Domestic	386.2	299.9	804.2	773.8	749.2	690.1
IMF mark accounts	—	351.7	330.7	330.7	330.7	330.7
Allocations of special drawing rights	—	—	88.2	88.2	88.2	88.2
Equalization accounts	408.0	405.6	490.3	494.4	500.0	507.7
Bank's own funds	503.2	528.0	533.3	534.5	536.0	537.4
Capital	300.0	300.0	300.0	300.0	300.0	300.0
Reserve fund	172.7	172.7	200.3	200.3	200.3	200.3
Profits undisposed	—	—	—	—	—	—
Earnings less expenses (Dec. 31, Net profit)	30.5	55.3	33.0	34.2	35.7	37.1
<b>Total</b>	<b>2 578.2</b>	<b>3 014.8</b>	<b>3 560.5</b>	<b>3 543.1</b>	<b>3 589.9</b>	<b>3 483.8</b>

End of year and month	Gold and foreign accounts						Treasury		
	Gold and foreign exchange	Liabilities on foreign exchange and mark accounts	Foreign exchange reserve (1-2)	Other foreign assets	Other foreign liabilities	Net foreign assets (3+4-5)	Claims on Treasury	Liabilities, Cheque account	Net claims on the Treasury (7-8)
	1	2	3	4	5	6	7	8	9
1963	752.2	18.2	734.0	65.6	100.5	699.1	18.9	0.2	18.7
1964	973.4	84.7	888.7	76.3	82.8	882.2	8.9	5.4	3.5
1965	860.9	44.8	816.1	83.8	56.5	843.4	— 1.1	1.1	— 2.2
1966	555.9	61.2	494.7	81.3	100.8	475.2	10.4	39.8	— 29.4
1967	701.1	74.7	626.4	97.7	353.6	370.5	— 6.5	4.4	— 10.9
1968	1 352.5	62.1	1 290.4	124.9	33.8	1 381.5	—354.3	3.0	—357.3
1969	1 267.7	92.4	1 175.3	517.1	360.2	1 332.2	—196.1	3.7	—199.8
1969									
June	1 236.2	62.7	1 173.5	143.9	23.1	1 294.3	—281.5	5.3	—286.8
July	1 215.4	68.3	1 147.1	144.0	20.9	1 270.2	—281.2	18.8	—300.0
Aug.	1 226.7	70.5	1 156.2	144.5	21.2	1 279.5	—278.0	6.8	—284.8
Sept.	1 105.5	83.5	1 022.0	151.6	20.9	1 152.7	—263.0	1.1	—264.1
Oct.	1 246.7	75.9	1 170.8	154.3	18.1	1 307.0	—238.4	2.9	—241.3
Nov.	1 257.3	83.6	1 173.7	159.4	18.1	1 315.0	—224.7	2.8	—227.5
Dec.	1 267.7	92.4	1 175.3	517.1	360.2	1 332.2	—196.1	3.7	—199.8
1970									
Jan.	1 393.7	56.6	1 337.1	514.8	359.4	1 492.5	—187.2	1.1	—188.3
Feb.	1 541.8	54.0	1 487.8	515.7	359.4	1 644.1	—184.5	18.2	—202.7
March	1 468.8	53.7	1 415.1	524.1	359.4	1 579.8	—175.2	12.1	—187.3
April	1 484.5	57.4	1 427.1	545.6	356.4	1 616.3	—169.6	6.8	—176.4
May	1 536.6	59.5	1 477.1	538.7	356.4	1 659.4	—166.5	1.2	—167.7
June	1 586.0	85.2	1 500.8	515.2	351.7	1 664.3	—163.2	0.6	—163.8
July	1 642.0	83.3	1 558.7	450.9	330.7	1 678.9	—159.5	1.6	—161.1
Aug.	1 684.8	77.9	1 606.9	439.7	330.7	1 715.9	—149.4	1.0	—150.4

## FOREIGN EXCHANGE SITUATION

Mill. mk

	Net holdings, Dec. 31, 1969			Net holdings, July 31, 1970			Change	
	Bank of Finland	Other	Total	Bank of Finland	Other	Total	July	Jan.-July
	Gold	189	—	189	189	—	189	—
Special drawing rights	—	—	—	93	—	93	—	+ 93
IMF gold tranche	173	—	173	194	—	194	+21	+ 21
Convertible currencies	893	—98	795	1 010	—326	684	+61	—111
Other currencies	—80	5	—75	73	— 12	61	—39	+136
Total	1 175	—93	1 082	1 559	—338	1 221	+43	+139

End of year and month	Domestic banks						Other					Notes in circulation
	Dis-counted bills	Redis-counted bills	Cheque accounts <sup>1</sup>	Liabilities, Cheque accounts		Net claims on the banks (1+2+3-4-5)	Inland bills in Finnish marks	Other advances	Liabilities	Net claims on the rest of economy (7+8-9)		
				Private banks <sup>2</sup>	Post Office Bank <sup>2</sup>							
	1	2	3	4	5	6	7	8	9	10	11	
1963	—	325.3	—	1.3	3.0	321.0	57.4	94.2	2.9	148.7	943.7	
1964	—	448.4	—	16.4	49.6	382.4	78.5	91.6	2.2	167.9	1 002.7	
1965	—	640.6	—	11.9	8.3	620.4	76.2	71.7	31.8	116.1	1 028.5	
1966	—	915.2	—	13.8	17.3	884.1	180.3	84.8	71.9	193.2	1 106.2	
1967	—	867.5	—	154.7	34.5	678.3	197.3	382.5	56.0	523.8	1 052.1	
1968	—	617.7	107.4	163.3	16.3	545.5	186.3	195.3	43.4	338.2	1 159.6	
1969	—	550.3	86.8	92.8	12.2	532.1	191.6	269.3	25.4	435.5	1 298.4	
1969												
June	—	699.6	147.3	124.1	37.6	685.2	159.9	187.1	29.1	317.9	1 177.6	
July	—	714.1	120.2	124.1	33.2	677.0	169.7	185.8	26.7	328.8	1 119.8	
Aug.	—	601.3	115.2	83.3	11.3	621.9	174.9	185.8	25.7	335.0	1 166.6	
Sept.	—	684.6	112.2	82.7	9.7	704.4	180.9	187.9	30.8	338.0	1 143.3	
Oct.	—	597.2	102.1	121.3	11.7	566.3	184.2	200.3	26.4	358.1	1 144.0	
Nov.	—	601.0	96.7	82.7	14.0	601.0	181.4	197.3	25.9	352.8	1 191.4	
Dec.	—	550.3	86.8	92.8	12.2	532.1	191.6	269.3	25.4	435.5	1 298.4	
1970												
Jan.	462.4	36.1	74.6	82.7	12.8	477.6	183.3	189.2	157.4	215.1	1 177.5	
Feb.	467.9	8.7	62.7	63.6	82.6	393.1	178.9	196.6	165.0	210.5	1 208.9	
March	584.8	4.2	98.1	41.4	50.2	595.5	167.4	191.6	449.6	— 90.6	1 189.6	
April	552.8	7.3	58.3	41.4	15.2	561.8	157.2	178.8	437.1	—101.1	1 205.1	
May	531.4	8.3	43.8	41.4	7.8	534.3	151.3	176.0	466.5	—139.2	1 258.3	
June	589.7	6.5	40.4	41.4	5.2	590.0	150.7	167.6	549.0	—230.7	1 264.8	
July	683.2	3.7	17.3	47.0	5.9	651.3	163.3	169.0	579.0	—246.7	1 226.1	
Aug.	664.1	12.4	27.5	—	1.1	702.9	162.2	160.8	552.8	—229.8	1 237.6	

<sup>1</sup> Including special index accounts.

<sup>2</sup> Including cash reserve accounts.

## SELLING RATES FOR FOREIGN EXCHANGE

Mk

Aug. 31, 1970

New York	1 \$	4.176	Frankfurt o. M.	100 DM	115.02	Vienna	100 S	16.18
Montreal	1 \$	4.102	Amsterdam	100 FI	115.97	Lisbon	100 Esc	14.63
London	1 £	9.955	Brussels	100 Fr	8.415	Reykjavik	100 Kr	4.76
Stockholm	100 Kr	80.55	Zurich	100 Fr	97.08	Madrid	100 Pta	6.03
Oslo	100 Kr	58.46	Paris	100 FF	75.65	Moscow <sup>1</sup>	1 Rbl	4.6799
Copenhagen	100 Kr	55.70	Rome	100 Lit	0.6695	Clearing dollars <sup>2</sup>	1 CI \$	4.212

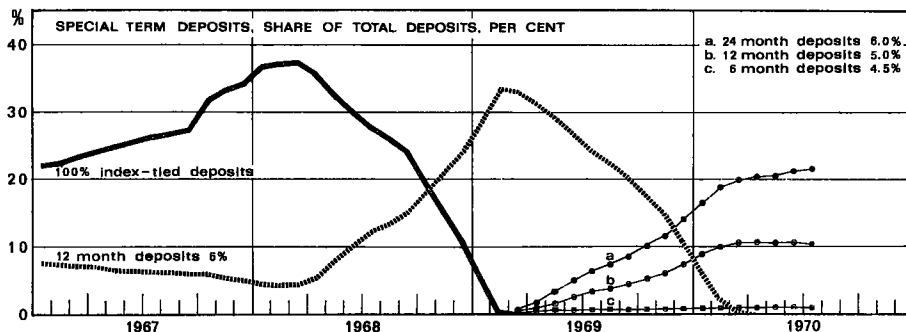
<sup>1</sup> Clearing account; also Bucharest.

<sup>2</sup> Berlin, Budapest, Sofia.

# DEPOSITS BY THE PUBLIC

Mill. mk

End of year and month	Sight deposits			Term deposits						Total (2+3+9)
	Cheque accounts		Postal giro accounts	Commer-cial banks	Savings banks	Co-op. banks	Post Office Bank	Co-op. stores	All credit institutions	
	Commer-cial banks	All credit institutions								
	1	2	3	4	5	6	7	8	9	10
1962	656.6	800.8	168.5	2 281.2	2 210.8	1 314.7	606.6	293.2	6 706.7	7 676.0
1963	729.1	876.0	250.3	2 451.6	2 336.6	1 437.5	648.5	310.7	7 185.0	8 311.3
1964	697.2	855.4	296.5	2 834.0	2 614.7	1 664.1	713.8	331.4	8 158.2	9 310.1
1965	676.9	843.7	309.4	3 182.6	2 954.4	1 931.0	773.2	357.2	9 198.6	10 351.7
1966	639.8	849.4	318.0	3 660.9	3 329.9	2 202.1	863.6	380.7	10 437.3	11 604.7
1967	661.5	834.0	340.9	4 103.1	3 644.6	2 417.3	941.2	431.3	11 537.9	12 712.8
1968	856.2	1 087.6	428.4	4 597.8	3 966.4	2 683.1	1 027.2	465.0	12 739.8	14 255.8
1969	1 057.4	1 373.9	520.8	5 236.3	4 333.1	3 021.6	1 116.0	521.6	14 228.7	16 123.4
1969										
June	938.8	1 172.9	466.6	4 782.4	4 084.9	2 797.3	1 049.5	474.2	13 188.6	14 828.1
July	928.8	1 160.0	404.0	4 802.3	4 087.1	2 815.4	1 052.4	474.8	13 232.2	14 796.2
Aug.	890.0	1 127.0	440.8	4 836.5	4 117.0	2 846.2	1 057.0	477.1	13 334.1	14 901.9
Sept.	957.6	1 213.4	463.2	4 869.2	4 149.2	2 881.6	1 062.7	490.8	13 453.8	15 130.4
Oct.	985.6	1 238.5	425.6	4 922.5	4 184.0	2 906.1	1 073.2	497.8	13 583.9	15 248.0
Nov.	946.1	1 190.5	445.8	4 954.8	4 218.9	2 946.0	1 080.5	507.0	13 707.4	15 343.7
Dec.	1 057.4	1 373.9	520.8	5 236.3	4 333.1	3 021.6	1 116.0	521.6	14 228.7	16 123.4
1970										
Jan.	1 060.3	1 324.0	568.1	5 299.1	4 389.7	3 068.9	1 139.0	528.6	14 425.3	16 317.4
Feb.	1 060.9	1 315.7	575.2	5 381.2	4 450.4	3 131.5	1 164.4	535.9	14 663.4	16 554.3
March	1 098.3	1 371.4	542.4	5 416.5	4 475.8	3 159.0	1 172.9	541.6	14 765.8	16 679.6
April	1 133.1	1 390.8	572.7	5 489.3	4 502.0	3 193.2	1 188.0	544.0	14 916.5	16 880.0
May	1 074.0	1 344.3	563.8	5 562.7	4 540.9	3 219.0	1 188.3	545.3	15 056.2	16 964.3
June	1 110.4	1 376.7	555.2	5 591.5	4 522.5	3 186.6	1 186.6	540.5	15 027.6	16 959.5
July	1 067.9	1 345.3	529.3	5 605.5	4 540.7	3 202.4	1 192.7	540.0	15 081.3	16 955.9

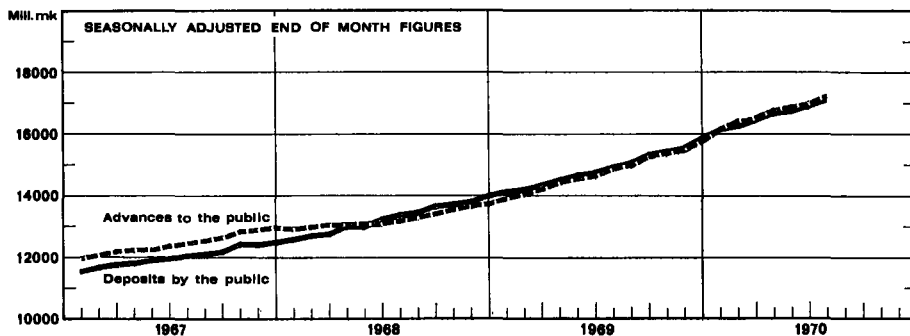




# ADVANCES TO THE PUBLIC—MONEY SUPPLY

Mill. mk

End of year and month	Advances granted by					Types of advances			Total (1 to 5) (6 and 7)	Money Supply
	Commer- cial banks	Savings banks	Post Office Bank	Co-op. banks	Mortgage banks	Loans & Bills	Cheque credits			
	1	2	3	4	5	6	7	8	9	
1962	3 425.7	2 018.5	508.7	1 474.8	614.7	7 680.8	361.6	8 042.4	1 722.5	
1963	3 621.3	2 134.5	544.0	1 608.9	664.3	8 226.2	346.8	8 573.0	1 986.5	
1964	4 153.2	2 318.0	607.7	1 820.7	829.4	9 320.5	408.5	9 729.0	2 042.5	
1965	4 597.4	2 609.2	716.5	2 030.6	899.4	10 439.6	413.5	10 853.1	2 085.0	
1966	5 205.4	2 951.4	783.9	2 261.0	908.8	11 630.7	479.8	12 110.5	2 221.7	
1967	5 558.9	3 247.7	869.0	2 424.3	1 026.9	12 598.9	527.9	13 126.8	2 183.1	
1968	5 865.5	3 448.4	940.3	2 600.5	1 053.0	13 419.5	488.2	13 907.7	2 668.7	
1969	6 892.2	3 802.8	1 049.1	2 922.1	1 290.4	15 375.0	581.6	15 956.6	3 138.1	
1969										
June	6 300.1	3 561.1	978.9	2 713.9	1 178.9	14 139.9	593.0	14 732.9	2 730.9	
July	6 343.5	3 595.4	988.4	2 743.4	1 191.8	14 278.9	583.6	14 862.5	2 634.6	
Aug.	6 364.7	3 633.8	1 010.5	2 772.6	1 196.2	14 406.2	571.6	14 977.8	2 675.1	
Sept.	6 551.2	3 688.9	1 027.5	2 819.4	1 201.4	14 678.8	609.6	15 288.4	2 737.3	
Oct.	6 640.0	3 746.8	1 037.3	2 870.5	1 228.3	14 911.9	611.0	15 522.9	2 760.7	
Nov.	6 739.5	3 794.8	1 044.8	2 911.3	1 243.9	15 093.5	640.8	15 734.3	2 792.0	
Dec.	6 892.2	3 802.8	1 049.1	2 922.1	1 290.4	15 375.0	581.6	15 956.6	3 138.1	
1970										
Jan.	6 944.4	3 834.9	1 070.5	2 948.1	1 317.7	15 516.9	598.7	16 115.6	3 164.3	
Feb.	7 060.6	3 853.6	1 089.5	2 978.1	1 318.6	15 667.0	633.4	16 300.4	3 216.5	
March	7 100.3	3 883.0	1 098.1	2 994.2	1 333.5	15 770.7	638.4	16 409.1	3 455.7	
April	7 300.5	3 947.2	1 119.0	3 029.7	1 317.8	16 005.4	708.8	16 714.2	3 534.3	
May	7 336.5	3 991.9	1 119.3	3 068.4	1 337.2	16 185.9	667.4	16 853.3	3 555.5	
June	7 433.1	4 022.0	1 130.3	3 095.3	1 355.8	16 348.0	688.5	17 036.5	3 627.5	
July	7 464.0	4 064.8	1 154.5	3 137.1	1 379.3	16 503.9	695.8	17 199.7	3 595.0	





# FOREIGN TRADE

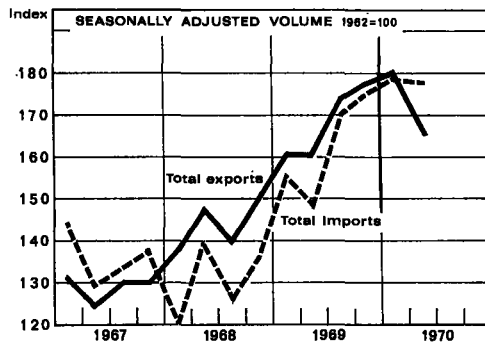
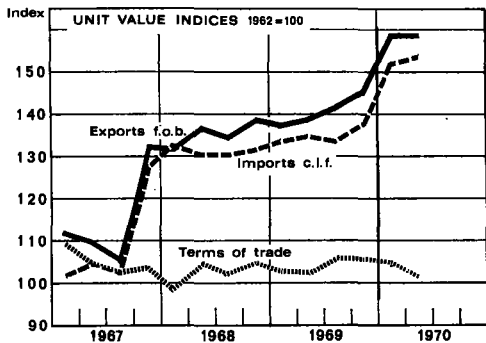
Mill. mk

Value mill. mk

Period	Value mill. mk		
	Exports f. o. b.	Imports c. i. f.	Surplus of exports (+) or imports (-)
1965	4 566.0	5 265.1	-699.1
1966	4 816.9	5 524.4	-707.5
1967	5 231.2	5 794.4	-563.2
1968	6 874.2	6 710.9	+163.3
1969	8 344.8	8 495.0	-150.2
1969			
May	753.7	740.5	+ 13.2
June	704.4	645.8	+ 58.6
July	742.3	648.5	+ 93.8
Aug.	703.7	588.8	+114.9
Sept.	733.0	782.1	- 49.1
Oct.	884.9	865.0	+ 19.9
Nov.	714.4	747.3	- 32.9
Dec.	845.9	922.4	- 76.5
1970*			
Jan.	758.0	768.1	- 10.1
Feb.	597.1	741.8	-144.7
March	731.2	792.9	- 61.7
April	813.7	982.5	-168.8
May	822.0	908.6	- 86.6
June	806.0	824.9	- 18.9
Jan.-June			
1969*	3 720.6	3 941.0	-220.4
1970*	4 528.0	5 018.8	-490.8

Indices of exports and imports 1962 = 100

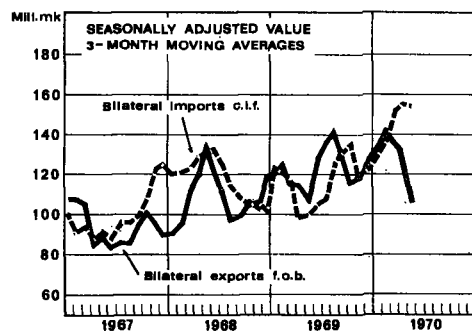
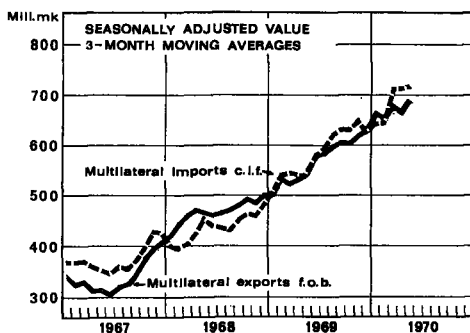
Period	Indices of exports and imports 1962 = 100				Terms of trade
	Volume		Unit value		
	Exports	Imports	Exports	Imports	
1965	114	129	113	104	109
1966	122	135	112	104	108
1967	129	135	115	110	105
1968	143	129	136	132	103
1969	167	160	141	135	104
1967					
July-Sept.	134	124	106	103	103
Oct.-Dec.	139	144	133	128	104
1968					
Jan.-Mar.	120	116	132	133	99
Apr.-June	150	141	137	131	105
July-Sept.	142	116	135	131	103
Oct.-Dec.	161	145	139	132	105
1969					
Jan.-Mar.	140	147	138	134	103
Apr.-June	164	151	139	135	103
July-Sept.	174	153	142	134	106
Oct.-Dec.	190	187	146	138	106
1970*					
Jan.-Mar.	148	154	159	152	105
Apr.-June	173	180	159	154	103



# FOREIGN TRADE BY MAIN GROUPS

Mill. mk

Period	Exports, f.o.b.						Imports, c.i.f.			
	Agricultural products	Round and hewn timber	Wood industry products	Paper industry products	Metal, engineering industry products	Other goods	Raw materials and producer goods	Fuels and lubricants	Finished goods	
									Investment goods	Consumer goods
1965	251.8	60.3	919.8	2 165.6	800.3	368.2	2 362.4	514.7	1 511.4	876.6
1966	264.0	59.0	863.5	2 297.0	877.2	456.2	2 450.5	589.8	1 448.5	1 035.6
1967	261.4	54.3	865.7	2 384.5	1 080.6	584.7	2 545.9	668.2	1 462.8	1 117.5
1968	327.1	55.5	1 157.7	2 994.0	1 566.4	773.5	3 023.1	874.0	1 524.2	1 289.6
1969	360.2	71.9	1 400.4	3 373.9	2 011.8	1 126.6	3 683.4	948.3	2 229.4	1 633.9
1969*										
May	26.6	6.7	125.0	300.1	208.0	87.3	321.4	63.8	217.2	138.1
June	27.3	5.5	133.3	260.5	183.1	94.7	290.2	53.3	191.4	110.9
July	17.6	10.3	155.3	268.9	216.3	73.9	302.7	65.3	160.9	119.6
Aug.	21.9	9.3	153.0	289.5	129.8	100.2	285.2	55.0	139.4	109.2
Sept.	24.7	9.8	150.4	287.0	147.1	114.0	344.6	119.3	173.4	144.8
Oct.	24.9	7.9	158.6	337.2	235.1	121.2	366.9	96.9	243.8	157.4
Nov.	26.2	8.5	130.6	291.7	144.2	113.2	337.1	99.4	146.0	164.8
Dec.	58.8	5.3	121.4	301.8	256.8	101.8	434.0	71.9	234.9	181.6
1970*										
Jan.	53.4	1.4	112.0	295.4	199.4	96.4	330.8	133.5	166.2	137.6
Feb.	26.5	1.7	64.3	253.2	147.0	104.4	314.5	69.9	203.0	154.4
March	47.0	0.7	62.7	308.3	191.0	121.5	332.8	54.8	245.5	159.8
April	29.0	3.1	94.9	333.4	219.6	133.7	443.7	73.4	250.8	214.6
May	37.3	9.4	131.4	325.6	212.2	106.1	409.3	110.0	222.8	166.5
June	27.1	10.7	150.6	316.7	192.6	108.3	395.7	90.0	200.1	139.1
Jan.-June										
1969*	186.1	20.8	531.1	1 597.8	882.5	502.3	1 613.1	440.5	1 130.9	756.5
1970*	220.3	27.0	615.9	1 832.6	1 161.8	670.4	2 226.8	531.6	1 288.4	972.0



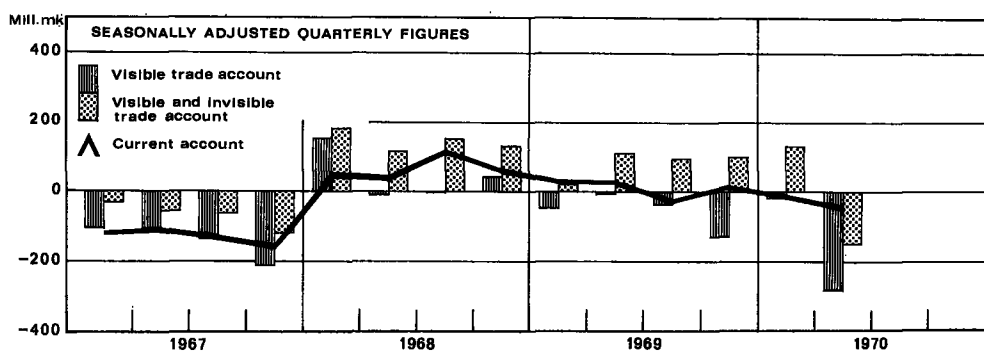
## FOREIGN TRADE BY COUNTRIES

Mill. mk

Area and country	Exports, f.o.b.				Imports, c.i.f.			
	January—June				January—June			
	1969		1970		1969		1970	
	%	Mill. mk	%	Mill. mk	%	Mill. mk	%	Mill. mk
<b>OECD countries in Europe</b>	67.1	2 498.1	71.0	3 214.2	72.2	2 844.2	74.2	3 724.1
Austria	0.6	22.4	0.9	40.2	1.1	42.9	1.3	63.2
Belgium-Luxembourg	2.2	81.4	1.9	84.1	1.8	71.1	2.2	109.6
Denmark	4.0	148.3	4.0	181.3	3.3	128.6	3.3	165.6
France	4.3	161.7	4.0	181.3	4.1	160.5	3.6	182.8
Federal Republic of Germany	10.0	370.2	10.8	488.9	15.4	603.7	17.0	853.4
Italy	2.7	98.8	2.5	115.4	2.4	94.7	2.1	106.1
Netherlands	4.0	149.6	4.3	194.5	3.6	142.8	3.6	178.0
Norway	2.1	78.0	3.4	152.8	2.6	102.5	2.3	117.1
Portugal	0.3	11.1	0.4	17.8	0.6	24.3	0.8	42.2
Spain	0.9	33.3	1.1	47.7	0.3	12.9	0.3	15.3
Sweden	13.8	513.9	16.6	753.0	16.1	638.2	18.2	910.2
Switzerland	1.8	68.5	1.8	80.7	3.2	125.7	3.3	166.6
United Kingdom	18.4	685.3	17.6	798.7	17.4	686.4	15.9	798.0
Other	2.0	75.6	1.7	77.8	0.3	9.9	0.3	16.0
<b>OECD countries outside Europe</b>	7.6	282.7	6.2	279.5	7.1	279.5	5.5	274.2
Canada	0.4	15.8	1.0	46.5	0.2	8.6	0.4	16.8
Japan	0.3	9.8	0.3	12.8	1.8	69.1	2.0	101.8
United States	6.9	257.1	4.9	220.2	5.1	201.8	3.1	155.6
<b>Eastern Bloc</b>	17.3	642.7	15.3	692.5	15.6	615.2	16.1	810.4
Czechoslovakia	0.5	20.2	0.5	23.0	0.6	23.4	0.5	23.3
Democratic Republic of Germany	0.6	21.0	0.6	28.4	0.6	24.9	0.4	26.7
People's Republic of China	0.2	5.4	0.7	28.6	0.3	13.7	0.2	8.7
Poland	1.7	63.9	1.2	55.2	1.0	37.8	1.1	56.5
Soviet Union	13.5	501.5	11.4	517.6	12.6	494.7	13.2	660.0
Other	0.8	30.7	0.9	39.7	0.5	20.7	0.7	35.2
<b>Latin America</b>	3.6	135.1	2.6	118.5	2.4	96.5	2.2	108.2
Argentina	0.7	26.2	0.8	35.2	0.3	12.0	0.2	10.1
Brazil	0.4	16.3	0.5	21.4	0.8	32.0	0.5	24.6
Colombia	0.3	10.0	0.2	10.0	0.6	23.5	0.7	35.3
Other	2.2	82.6	1.1	51.9	0.7	29.0	0.8	38.2
<b>Other</b>	4.4	162.0	4.9	223.3	2.7	105.6	2.0	102.0
<b>GRAND TOTAL</b>	100.0	3 720.6	100.0	4 528.0	100.0	3 941.0	100.0	5 018.9
of which								
<b>EFTA countries</b>	41.1	1 527.4	44.8	2 027.8	44.4	1 748.6	45.3	2 271.9
<b>EEC countries</b>	23.2	862.1	23.5	1 064.2	27.2	1 072.8	28.5	1 429.8
<b>OECD countries</b>	74.7	2 780.8	77.2	3 493.7	79.3	3 123.7	79.7	3 998.3

# BALANCE OF PAYMENTS

Period	Visible exports f.o.b.	Visible imports c.i.f.	Visible trade account	Transport, net	Travel, net	Other services, net	Visible and invisible trade account	Investment income, net	Transfer payments, net	Current account
1967	5 194	5 816	-622	+416	- 88	+17	-277	-209	- 3	-489
1968	6 832	6 730	+102	+481	- 8	-25	+550	-276	- 5	+269
1969	8 296	8 528	-232	+579	+ 4	-13	+338	-323	+72	+ 87
Jan.-Mar										
1967	1 088	1 347	-259	+ 98	- 24	- 2	-187	- 57	- 1	-245
1968	1 385	1 515	-130	+103	- 16	+ 7	- 36	- 58	+ 1	- 93
1969	1 696	1 944	-248	+128	- 20	-11	-151	- 57	+80	-128
1970	2 074	2 309	-235	+167	- 9	- 3	- 80	- 86	-11	-177
Apr.-June										
1967	1 242	1 398	-156	+ 97	- 34	+ 6	- 87	- 39	+ 1	-125
1968	1 808	1 829	- 21	+133	- 12	+ 2	+102	- 67	- 1	+ 34
1969	2 002	2 008	- 6	+140	- 17	- 6	+111	- 84	- 7	+ 20
1970	2 423	2 721	-298	+141	+ 10	+ 1	-146	- 96	+ 0	-242
July-Sept.										
1967	1 241	1 256	- 15	+114	- 18	- 3	+ 78	- 63	+ 3	+ 18
1968	1 680	1 500	+180	+147	+ 32	+ 0	+359	- 67	- 1	+291
1969	2 168	2 022	+146	+116	+ 38	-14	+286	- 80	+ 1	+207
Oct.-Dec.										
1967	1 623	1 815	-192	+107	- 12	+16	- 81	- 50	- 6	-137
1968	1 959	1 886	+ 73	+ 98	- 12	-34	+125	- 84	- 4	+ 37
1969	2 430	2 554	-124	+195	+ 3	+18	+ 92	-102	- 2	- 12

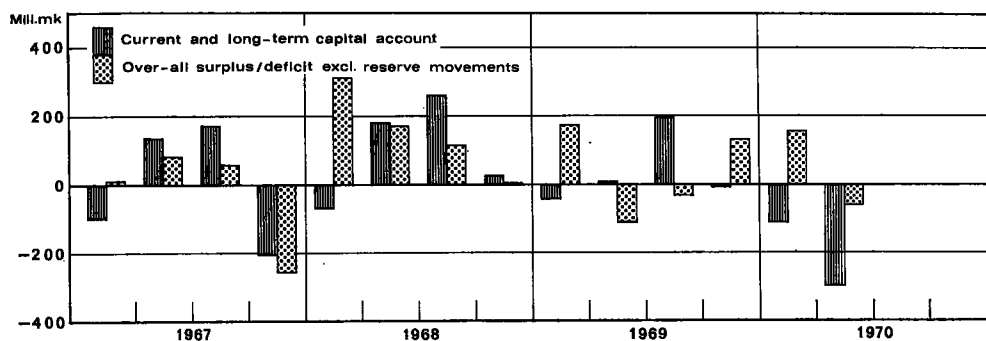


Drawings of long-term loans	Amortizations of long-term loans	Long-term export credits, net	Miscellaneous long-term capital items, net <sup>1</sup>	Long-term capital account	Current and long-term capital account	Short-term import credits and pre-payments, net	Short-term export credits and pre-payments, net	Miscellaneous short-term capital items incl. errors and omissions	Over-all surplus/deficit excl. reserve movements	Reserve movements	
										Bank of Finland	Other foreign exchange holders
+ 910	-406	- 33	+13	+484	- 5	-112	- 56	+ 65	-108	+ 84	+ 24
+1 245	-868	-167	-81	+129	+398	+235	- 64	+ 28	+597	-664	+ 67
+1 055	-723	-180	-51	+101	+188	+284	-311	- 6	+155	+115	-270
+ 192	- 66	+ 12	+ 5	+143	-102	- 48	+ 85	+ 74	+ 9	- 50	+ 41
+ 214	-140	- 54	+ 4	+ 24	- 69	+168	+191	+ 24	+314	-401	+ 87
+ 311	-201	- 8	-15	+ 87	- 41	+112	+147	- 46	+172	-135	- 37
+ 278	-158	- 51	+ 1	+ 70	-107	- 9	+225	+ 48 <sup>2</sup>	+157	-240	+ 83
+ 315	- 62	+ 2	+ 4	+259	+134	+ 44	+ 71	-169	+ 80	-105	+ 25
+ 396	-214	- 18	-18	+146	+180	+190	-144	- 56	+170	-233	+ 63
+ 279	-155	- 98	-39	- 13	+ 7	- 23	- 92	- 6	-114	+252	-138
+ 220	-191	- 69	- 4	- 44	-286	+144	+ 46	+ 35	- 61	- 86	+147
+ 251	- 92	- 13	+ 4	+150	+168	- 95	- 53	+ 38	+ 58	- 77	+ 19
+ 226	-212	- 14	-29	- 29	+262	- 98	- 27	- 25	+112	- 18	- 94
+ 146	-146	- 17	+ 6	- 11	+196	+ 34	-284	+ 19	- 35	+151	-116
+ 152	-186	- 34	+ 0	- 68	-205	- 13	-159	+122	-255	+316	- 61
+ 409	-302	- 81	-38	- 12	+ 25	- 25	- 84	+ 85	+ 1	- 12	+ 11
+ 319	-221	- 57	- 3	+ 38	+ 26	+161	- 82	+ 27	+132	-153	+ 21

Assets: increase —, decrease +. Liabilities: increase +, decrease —.

<sup>1</sup> Including Direct investment net.

<sup>2</sup> Including Allocations of special drawing rights 88 million.



# PRICE INDICES

Period	Wholesale prices 1949 = 100									Building costs 1964 = 100		
	Total	Origin		Purpose			Stage of processing			Total	Wages in building trade	Building materials
		Domes- tic goods	Im- ported goods	Pro- ducer goods	Machin- ery & transport equipm.	Con- sumer goods	Raw materials and com- modities	Simply pro- cessed goods	More elab- orately processed goods			
1967	248	254	225	246	241	253	276	236	240	114	121	107
1968	275	280	259	271	276	281	301	264	268	126	133	115
1969	285	288	271	283	291	285	313	276	273	131	139	119
1969												
Oct.	289	291	280	289	301	285	316	283	276	133	139	122
Nov.	290	293	281	291	301	286	319	285	276	133	139	123
Dec.	291	293	282	293	301	285	319	287	277	134	139	122
1970												
Jan.	294	297	284	297	307	288	323	290	280	137	146	123
Feb.	295	298	285	297	308	289	327	289	280	138	146	126
March	296	299	285	297	308	291	329	290	280	138	146	126
April	297	300	286	300	310	291	330	293	281	138	146	126
May	297	299	287	299	313	289	326	293	281	138	146	126
June	296	298	286	297	313	289	324	291	281	138	146	127
July	298	301	285	300	313	292	333	290	282	138	146	127

Period	Consumer prices 1967 = 100											
	Cost of living Oct. 1951 = 100	Con- sumer prices Oct.-Dec. 1957 = 100	Total	Food	Bever- ages and tobacco	Clothing and foot- wear	Rent	Heating and lighting	Furniture, household equip. and operation	Traffic	Education and recreation	Other goods and services
1967	195	153	100	100	100	100	100	100	100	100	100	100
1968	212	166	109	111	110	106	107	108	109	110	108	109
1969	217	170	112	115	111	108	111	109	110	110	110	112
1969												
Oct.	218	171	112	115	111	109	113	109	111	110	111	112
Nov.	218	171	112	115	111	109	113	111	111	111	111	112
Dec.	218	171	112	115	111	109	113	112	111	111	111	112
1970												
Jan.	220	173	113	115	116	109	115	115	111	111	112	114
Feb.	221	173	114	115	116	109	115	116	112	112	112	114
March	221	174	114	115	116	109	115	118	113	112	113	114
April	222	174	114	116	114	109	116	119	113	112	113	114
May	222	174	114	116	114	109	116	118	113	113	113	114
June	222	174	114	116	114	109	116	119	113	113	113	115
July	223	175	115	117	114	109	116	118	113	113	113	115



# WAGES

Index of salary and wage earnings 1964 = 100

Period	By industries			By institutional sectors			All salary earners	All wage earners	All employees	
	Wage earners in			Employees in services	State employees	Municipal employees				Employees in private sector
	Agriculture	Manufacturing	Construction							
1967	139	128	125	131	126	134	126	127	127	127
1968	151	142	136	146	141	149	139	141	140	141
1969*	171	154	151	156	150	160	149	150	154	152
1968										
Oct.-Dec.	157	145	141	149	144	152	142	144	144	144
1969*										
Jan.-Mar.	167	151	145	155	150	159	147	149	149	149
Apr.-June	169	154	150	156	150	160	149	150	155	153
July-Sept.	169	155	155	156	150	160	150	150	157	154
Oct.-Dec.	181	155	156	156	150	160	150	150	155	153
1970*										
Jan.-Mar.	184	165	164	164	158	167	155	156	164	160
Apr.-June	186	167	168	164	158	167	157	157	169	164

# PRODUCTION

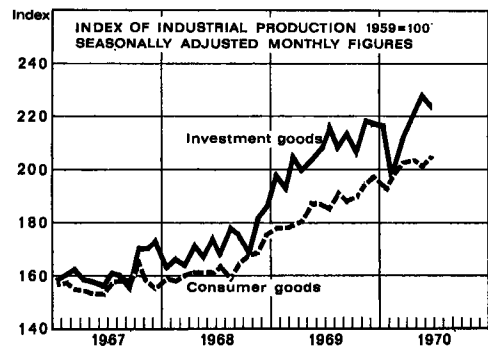
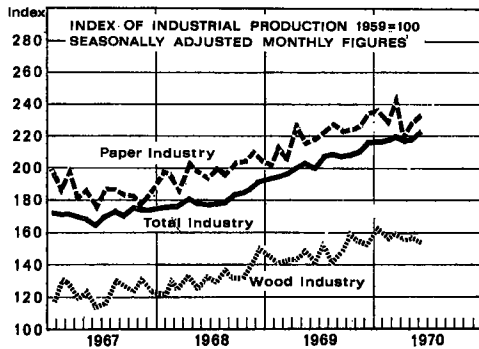
Volume indices of production 1964 = 100

Period	Gross domestic product	Industrial production	Agriculture	Forestry	House construction	Land and waterway construction	Transport and communications	Commerce, banking and insurance	Ownership of dwellings	Public admin. and defence	Services
1966	107	112	96	87	113	106	109	110	109	110	109
1967	110	115	96	89	117	106	109	113	114	114	114
1968	113	121	98	93	109	108	114	111	118	119	119
1969	122	136	97	101	124	105	123	123	123	123	126
1969											
Jan.-Mar.	119	138	62	146	85	111	115	114	122	122	124
Apr.-June	120	139	89	113	105	107	122	122	123	122	126
July-Sept.	124	127	173	46	157	103	128	121	124	123	126
Oct.-Dec.	126	147	66	100	150	99	129	134	125	125	128
1970*											
Jan.-Mar.	127	151	61	154	95	98	125	122	127	127	130
Apr.-June	129	150	85	123	125	98	131	131	127	128	132

# PRODUCTION

Index of industrial production 1959 = 100

Period	Total	Investment goods	Other producer goods	Consumer goods	Special indices of manufacturing						Total, adjusted for seasonal variations
					Food industry	Wood industry	Paper industry	Chemical industry	Non-metallic mineral industry	Metal industry	
1966	167	160	175	151	151	153	191	214	219	163	166
1967	172	163	180	158	160	125	187	233	224	168	172
1968	182	175	191	164	163	132	202	253	240	177	181
1969*	205	210	212	187	175	148	222	278	274	199	205
<b>1969*</b>											
Jan.	206	225	214	184	152	155	207	295	253	209	195
Feb.	196	212	204	174	143	146	210	271	229	200	196
March	217	245	225	192	157	164	235	292	269	224	198
April	202	207	207	188	165	160	213	277	261	198	201
May	209	212	213	198	179	169	213	280	288	205	204
June	189	198	190	185	176	129	193	240	271	188	202
July	156	112	170	135	184	134	220	229	256	106	209
Aug.	203	187	209	195	183	118	238	263	281	182	209
Sept.	216	230	221	199	181	142	235	283	294	216	208
Oct.	232	242	239	211	211	165	245	288	305	229	210
Nov.	220	232	230	194	203	146	235	304	284	218	212
Dec.	214	222	293	190	162	145	216	317	291	215	217
<b>1970*</b>											
Jan.	227	234	239	197	163	168	242	328	270	221	217
Feb.	217	219	228	194	155	161	226	336	269	212	218
March	222	228	230	201	162	166	238	305	287	219	220
April	239	256	240	231	195	193	238	327	310	243	217
May	220	225	226	204	178	168	225	306	296	216	220
June	215	223	215	210	195	145	209	306	306	211	223



# LABOUR—TIMBER FELLINGS—INTERNAL TRADE—TRAFFIC

Period	Total labour force, 1 000 persons	Employed 1 000 persons	Labour input 1 000 man-years/months	Unemployment, % of total labour force	Commerca timber fellings 1 000 piled cu. m	Retailers' sales volume index 1968 = 100	Whole-salers' volume index 1968 = 100	Indicator of traffic activity 1964 = 100
1966	2 215	2 180	1 904	1.6	46 507	..	..	103
1967	2 209	2 146	1 845	2.9	44 963	..	..	103
1968	2 188	2 100	1 754	4.0	47 733	100	100	109
1969	2 189	2 127	1 752	2.8	52 725	108	117	..
1969								
June	2 296	2 243	1 763	2.3	1 937	110	113	117
July	2 327	2 277	1 579	2.2	1 007	106	109	119
Aug.	2 286	2 239	1 691	2.1	1 886	103	119	121
Sept.	2 186	2 147	1 767	1.8	2 778	108	132	124
Oct.	2 171	2 131	1 805	1.8	3 906	117	134	130
Nov.	2 164	2 120	1 773	2.0	4 171	108	121	117
Dec.	2 164	2 113	1 771	2.4	5 724	149	138	119
1970								
Jan.	2 133	2 074	1 730	2.8	5 012	93	107	115
Feb.	2 130	2 073	1 689	2.7	6 210	93	114	114
March	2 129	2 075	1 713	2.5	5 531	100	108	..
April	2 130	2 078	1 760	2.4	4 718	112	117	..
May	2 175	2 137	1 840	1.7	11 972	..	..	..
June	2 323	2 287	..	1.5	..	..	..	..

## HOUSE CONSTRUCTION

Period	Building permits granted					Buildings completed					Building works under construction
	Total	Residen-tial buildings	Farm buildings	Industrial and business buildings	Public buildings	Total	Residen-tial buildings	Farm buildings	Industrial and business buildings	Public buildings	
Million cubic metres											
1966	36.70	15.98	3.65	11.56	3.29	26.91	11.35	2.84	8.39	3.01	36.19
1967	28.82	11.51	3.08	8.90	3.02	31.34	12.42	2.93	10.83	3.49	31.40
1968*	31.58	14.00	2.95	9.56	3.06	26.44	11.72	2.58	9.15	1.35	34.09
1969*	38.95	15.38	3.88	15.29	2.12	31.46	12.62	3.05	12.67	1.41	36.49
1968*											
Oct.-Dec.	8.97	4.17	0.43	2.67	1.30	7.78	3.82	0.94	2.20	0.40	34.09
1969*											
Jan.-Mar.	5.43	2.12	0.59	2.10	0.32	4.85	1.97	0.28	1.92	0.50	32.29
Apr.-June	11.98	4.95	1.88	4.13	0.25	5.56	2.42	0.38	1.64	0.82	37.45
July-Sept.	11.78	4.94	0.86	4.62	0.75	8.52	3.31	0.83	2.56	1.20	38.85
Oct.—Dec.	9.76	3.37	0.55	4.44	0.80	10.66	4.25	1.36	4.27	0.32	36.49

# EXPLANATIONS RELATING TO THE STATISTICAL SECTION

## BANK OF FINLAND

Page 4. Since Dec. 31, 1969. *Gold and foreign exchange* = Gold (valued on basis of the par value of the mark) + Special drawing rights + IMF gold tranche + Foreign exchange. *Liabilities on foreign exchange and mark accounts* = Foreign exchange accounts + Mark account of holders abroad. *Other foreign assets* = Foreign bills + Foreign bonds + Currency subscription to Finland's quota in the IMF. *Other foreign liabilities* = Foreign term liabilities + IMF mark accounts. *Claims on Treasury* = Treasury bills covering certain IMF and IBRD accounts + Advances for stand-by stocks — Export levies (net). *Foreign exchange situation*: Gold holdings are valued on basis of the par value of the mark. Gold tranche position measures that part of Finland's quota which may be drawn essentially automatically in convertible exchange against payment in marks.

Page 5. *Other advances* = Inland bills discounted in foreign currency + Loans + Other claims (excl. Treasury's IMF and IBRD bills and Advances for stand-by stocks). *Liabilities* = Other cheque accounts + Other sight liabilities + Domestic term liabilities — Cash reserve accounts — Export levies (net).

## DEPOSITS BY THE PUBLIC — ADVANCES TO THE PUBLIC — MONEY SUPPLY

Commercial bank and mortgage bank figures obtained from the official bank statistics, savings bank figures from the Central Statistical Office, other figures from the respective credit institutions or their central banks.

Page 6. *Cheque accounts in all credit institutions* relates to commercial banks, savings banks, co-operative banks, and mortgage banks. *Term deposits in all credit institutions* includes a small amount of deposits in mortgage banks.

Page 7. *Money supply* = Finnish notes and coins in circulation — Finnish notes and coins held by the banks + Cheque accounts of the public + Postal giro accounts of the public.

## STATE FINANCES

Page 8. Official figures computed by the Economic Department of the Ministry of Finance. First date of publication: Bulletin No. 8, 1968. Revenue and expenditure: Extra-budgetary funds and the aggregated net current deficit of State enterprises are included. Figures are reported on a cash payment basis. Debt: Foreign debt includes promissory notes given to international organizations. Index-tied bond loans are taken at nominal values. Cash debt (net) = net debt to the Bank of Finland plus short-term debt to the Post Office Bank less cash holdings (net) of State departments and funds.

## FOREIGN TRADE

Pages 9—11. Figures supplied by the Board of Customs. *Indices* (p. 9): The indices are calculated according to the Laspeyres formula. At the end of the year the arithmetic mean of the Laspeyres indices corresponds to the annual level of the Fisher index formula. *Terms of trade*: the ratio of export indices to import indices. *Foreign trade by countries* (p. 11): imports by countries of purchase, exports by countries of sale.

## BALANCE OF PAYMENTS

Pages 12—13. Figures are calculated by the Bank of Finland Institute for Economic Research. In addition to the Board of Customs figures, exports include grants in kind but exclude stevedoring expenses and imports include seamen's duty-free imports, non-monetary gold, grants in kind and adjusted allowance for smuggling.

## PRICE INDICES

Page 14. All indices calculated by the Central Statistical Office.

## WAGES — PRODUCTION

Pages 15—16. Figures supplied by the Central Statistical Office. Page 16. *Index of industrial production* calculated by the Central Statistical Office. The grouping by branches of industry is in accordance with the international nomenclature (ISIC). The seasonally adjusted series is calculated by the Bank of Finland Institute for Economic Research on the basis of the index of industrial production per working day according to a method resembling the U.S. Bureau of Census Method II. Commodities according to use: investment goods weight 14.3, other producer goods weight 57.0 and consumer goods weight 28.7. Special manufacturing indices: food industry ISIC no. 20, weight 11.2, wood industry no. 25, weight 6.6, paper industry no. 27, weight 13.1, chemical industry no. 31, weight 5.2, non-metallic mineral industry no. 33, weight 3.6 and metal industry nos. 34—38, weight 23.5

## LABOUR — TIMBER FELLINGS — INTERNAL TRADE — TRAFFIC — HOUSE CONSTRUCTION

Page 17. *Labour* figures supplied by the Labour Research Bureau of the Ministry of Communications and Public Works, both based on the labour force sample survey. Labour input represents the estimated average number of days worked. (See article in No. 10, 1960 of this Bulletin). *Commercial timber fellings* compiled by the Ministry of Communications and Public Works. Since July 1965 figures have been adjusted by the Bank of Finland Institute for Economic Research. *Retailers' and Wholesalers' volume indices* supplied by the Central Statistical Office. *Indicator of traffic activity* calculated by the Bank of Finland Institute for Economic Research. Figures are weighted averages of the sea, air, railway and road traffic. *House construction* figures calculated by the Central Statistical Office.

## SYMBOLS USED

• Preliminary   0 Less than half the final digit shown   . Logically impossible   .. Not available   — Nil

# SOME PARTICULARS ABOUT FINLAND

## FORM OF GOVERNMENT

From 1155 to 1809 Finland formed a part of the kingdom of Sweden and was raised in 1556 to the dignity of a Grand Duchy. Connected from 1809 with Russia, Finland was an autonomous country with the Emperor as Grand Duke until December 6, 1917, the date of Finland's declaration of independence. The republican constitution was adopted in 1919. The legislative power of the country is vested in Parliament and the President. The highest executive power is held by the President, elected for a period of 6 years. The President for the current period, March 1, 1968, to March 1, 1974, is Urho Kekkonen.

Parliament, comprising 200 members, is elected by universal suffrage for a period of 4 years. The number of seats of the different parties in Parliament elected in 1970 were as follows: Social Democrats 52, Conservatives 37, Centre Party 36, People's Democrats 36, Finnish Farmers' Party 18, Swedish Party 12, Liberal Party 8 and Christian League 1.

## INTERNATIONAL ORGANIZATIONS

Finland became a member of BIS 1930, IMF 1948, IBRD 1948, GATT 1950, UN 1955, IFC 1956, IDA 1960, EFTA 1961, ADB 1966 and OECD 1969.

## LAND

THE AREA is 337 000 square kilometres (Great Britain's area is 245 000 sq. km and Italy's area 301 000 sq. km). Of the total, inland waters form 9.4%. On an average 16.8% of the land in the South of Finland is cultivated (1960), 2.3% in the North and 9.2% of the land as a whole. Of the land area 21.8 mill. ha (53.9 mill. acres), or 71.3%, are covered by forests.

OWNERSHIP OF LAND (1960): The total land area was distributed among different classes of owners approximately as follows: private 60.9%, State 31.8%, joint stock companies etc. 5.6%, municipalities and parishes 1.7%.

## POPULATION

NUMBER OF INHABITANTS (1968): 4.7 million. Sweden 7.9, Switzerland 6.1, Denmark 4.9 and Norway 3.8 million.

DENSITY OF POPULATION (1968): In South Finland 26.2, in North Finland 4.3 and in the whole country an average of 15.4 inhabitants to the square kilometre.

DISTRIBUTION BY AREA (1968): 51% of the population inhabit the rural areas, 49% towns and urban districts. The largest towns are: Helsinki (Helsingfors), the capital 532 300 inhabitants, Tampere (Tammerfors) 152 500, Turku (Åbo) 152 000.

EMPLOYMENT (1968): Agriculture and forestry 25%, industry and construction 34%, commerce 15%, transport and communications 7%, services 19%.

LANGUAGE (1960): Finnish speaking 92.4%, Swedish speaking 7.4%, others 0.2%.

EDUCATION (1968): Practically all persons over 15 years of age are literate. There are 6 universities (the oldest founded in 1640), 6 colleges of university standard, and 2 teacher training colleges, besides teacher training departments in two of the universities.

INCREASE OF POPULATION (1968): births 16.0‰, deaths 9.6‰, increase 4.4‰, net emigration 1.6‰. Deaths in France 11.0‰ and Great Britain 11.8‰.

## TRADE AND TRANSPORT

NATIONAL INCOME (1969, in million marks). Gross domestic product at factor cost by industrial origin: agriculture 2 773 (8%), forestry and fishing 2 255 (7%), manufacturing 11 026 (32%), construction 3 147 (9%), transport and communication 2 471 (7%), commerce, banking and insurance 4 228 (12%), public administration 1 550 (5%), ownership of dwellings 2 081 (6%), services 4 781 (14%), total 34 312. Index of real domestic product 129 (1964 = 100).

FOREST RESOURCES (1960—1969): The growing stock comprised 1 450 million of solid cu. m incl. bark (51 210 million cu.ft), of which pine 43% and spruce 38%, the rest 19% being broad-leaf-trees, chiefly birch. Of the growing stock 17 411 million cu. ft, 48% of them pine, was up to the standard required for logs. The annual growth is 47 million solid cu. m green wood excl. bark (1 660 mill. cu. ft). The total removal in 1970 calculated according to the use of wood was 51 million cu. m excl. bark (1 758 million cu. ft).

AGRICULTURE (1960): Cultivated land 2.6 million hectares. Number of holdings 388 000, of which 184 000 are of more than 5 ha. Index of agricultural production 100 for 1969 (1964 = 100). Measure of self-sufficiency in bread cereals 100% in the crop year 1968/69.

INDUSTRY (1967): Gross value of industrial production 22 200 mill. marks, number of workers 355 200, salaried employees 89 600, motive power (1967) 4.3 mill. kW. Index of industrial production 182 for 1968 (1959 = 100).

STATE RAILWAYS (Jan. 1, 1970): Length 5 801 km.

MERCHANT FLEET (July 30, 1970): Steamers 55 (66 812 gross reg. tons), motor vessels 385 (583 935 gross reg. tons), tankers 53 (678 938 gross reg. tons), sailing vessels with auxiliary engines 9 (1 274 gross reg. tons). Total 502 (1 330 959 gross reg. tons).

MOTOR VEHICLES (Dec. 31, 1969): Passenger cars 643 100, lorries and vans 96 900, buses 7 900, others 4 700. Total 752 600.

FINNISH AIRCRAFT (April 1970): Finnish airlines. Finnair and Kar-Air have in use 2 DC-8-62s, 3 DC-6s, 8 Super Caravelles and 9 Convair Metropolitan. Companies have scheduled traffic outside of Finland to 23 airports and to 16 domestic airports.

## FINANCE AND BANKING

CURRENCY. Since 1860, Finland has had its own monetary system. From 1877 until 1914 the country was on the gold standard, and returned to it in 1926. In 1931, the Central Bank's duty to redeem bank notes in gold was suspended and at the end of 1962 was entirely cancelled. The monetary unit is the mark (Finnish markka). Since Oct. 12, 1967, the par value of the mark is 0.21159 grams of fine gold per mark (equivalent to 4.20 marks per U.S. dollar).

THE CENTRAL BANK. The Bank of Finland (estab. 1811) functions under the guarantee and supervision of Parliament. Its Board of Management is appointed by the President of the Republic; the Bank Supervisors, nine in number, are elected by Parliament. The Bank has a head office in Helsinki and 12 branches in other towns.

OTHER CREDIT INSTITUTIONS (Dec. 31, 1969). There are two big and four small commercial banks with in all 824 offices, 330 savings banks, 464 co-operative banks and their central bank, six mortgage banks, and Post Office Bank. The co-operative stores accept deposits from their members. The National Pension Institute and sixtytwo private insurance companies also grant credits.

RATES OF INTEREST (Jan 1, 1970). Bank of Finland discount rates 6—9%, the rate for discounts or rediscounts for banks 7%. Other credit institutions: term deposits 4%, 6 month deposits 4½%, 12 month deposits 5%, 24 month deposits 6%; highest lending rate 10%.

# ICEBREAKERS IN FINNISH MARINE TRANSPORT

by Pertti Kukkonen, D. Pol. Sc.,

Director of the Bank of Finland Institute for Economic Research

Finnish foreign trade and marine transport face a problem not encountered by other countries to the same extent. All marine transport has to pass through an ice barrier in normal winters. In the Gulf of Bothnia and in the eastern part of the Gulf of Finland ice is a hindrance even in mild winters. Icebreakers have made it possible to pierce the ice barrier and to secure the exchange of goods with foreign countries; consequently the development of the icebreaker fleet has been of prime importance to the Finnish economy. Without icebreakers and trading ships with specially strengthened hulls, Finnish marine transport would be almost completely unable to operate for approximately two months in normal winters and for 3—4 months in severe winters. As surface transportation through Sweden or the Soviet Union would be very expensive, an economically more sound solution has been to build an icebreaker fleet and to keep the ports of south Finland open even in difficult winters.

Without the help of the icebreakers exports, especially of paper and pulp, would be hampered from the Gulf of Bothnia and the ports of Kotka and Hamina in the eastern part of the Gulf of Finland. Although icebreakers are available, the ports on the northernmost part of the Gulf of Bothnia have to be closed in mid-winter almost every year.

The products of the wood-processing industry accounted for 7.5 million tons of exports out of a total of approximately 12 million tons in 1969. An annual average of about 2 million tons of these products originates in the northern part of the Gulf of Bothnia. In the middle of the winter export products from this area are transported by railroad to the southern ports kept open with the aid of icebreakers. On the

import side, the transportation of oil in particular is concentrated on a few southern ports that suffer from ice blockades only in severe winters. Finland imports about 9 million tons of oil which is equivalent to about half of all imports by tonnage. Since the consumption of oil is especially great in unusually cold winters and oil plays a decisive role in modern industrial and heating techniques and, in addition, its storage costs are high, strong icebreakers are needed in case of severe winters to secure the availability of oil. Moreover, the most important export deliveries have to be facilitated even in the coldest winters when traders have to be assisted as far as the southern part of the Baltic Sea.

The use of icebreakers can be rationalized in that several traders are collected in certain ports of departure to form a convoy that uses the passage opened by one icebreaker. However, in very difficult situations it is impossible to assist more than one or two vessels at a time. Occasionally the icebreakers have to tow the ships they are assisting.

## ICEBREAKER FLEET

Icebreakers have been used in Finnish waters since the end of the 19th century. The Finnish icebreaker fleet, originally built mainly in the 1920's and 1930's, has been replaced almost completely since 1954. Of the vessels built before 1954 only one, »Sisu», built in 1939, is still in regular service. It is planned to discard this in 1971. The total capacity of the icebreaker stock has been increased from 25 000 shaft hp in 1954 to 61 500 hp. There are now seven Finnish icebreakers:

	Capacity shaft hp	Year of acquisition	Price of delivery in million marks, at 1968 prices
Sisu	4 500	1939	10.7
Voima	10 500	1954	19.8
Karhu	7 500	1958	14.9
Murtaja	7 500	1959	16.2
Sampo	7 500	1960	15.7
Tarmo	12 000	1963	26.8
Varma	12 000	1968	34.6
Total			61 500 138.7

One more 12 000 hp diesel driven »Tarmo» type icebreaker has been ordered; it is called »Apu» and will be in service towards the end of 1971. The icebreaker »Hanse» of the Federal Republic of Germany has been used by the Finnish National Board of Navigation since 1968 and it leaves for the owner's waters only when the ice situation in the southern Baltic Sea makes it necessary.

#### ANNUAL ADVANCE OF THE ICE

Ice begins to form along the northern coast of the Gulf of Bothnia in the latter half of November and a little later in the eastern bays of the Gulf of Finland. The ice extends gradually to the south of the Gulf of Bothnia and to the west of the Gulf of Finland. In a normal winter the Gulf of Finland becomes completely frozen, as does the Gulf of Bothnia with the possible exception of a small area in the middle of it. If the winter is colder than usual the ice extends to the southern part of the Baltic Sea and in exceptionally severe winters the whole of the Baltic Sea is frozen down to the straits of Denmark. The ice usually reaches its maximum depth at the beginning of March, after which it begins to melt.

The bays of the Gulf of Finland are ice-free by the middle of April as is the head of the Gulf of Bothnia by the middle of May. Apart from the ice-barrier's size, the difficulty of crossing it depends also on the winds. Heavy wind from the sea towards the coast causes pack ice, which sometimes can be broken only with the aid of the strongest icebreakers. On the other

hand, the wind may open lanes in the ice along which ships can travel sometimes considerable distances without the assistance of icebreakers.

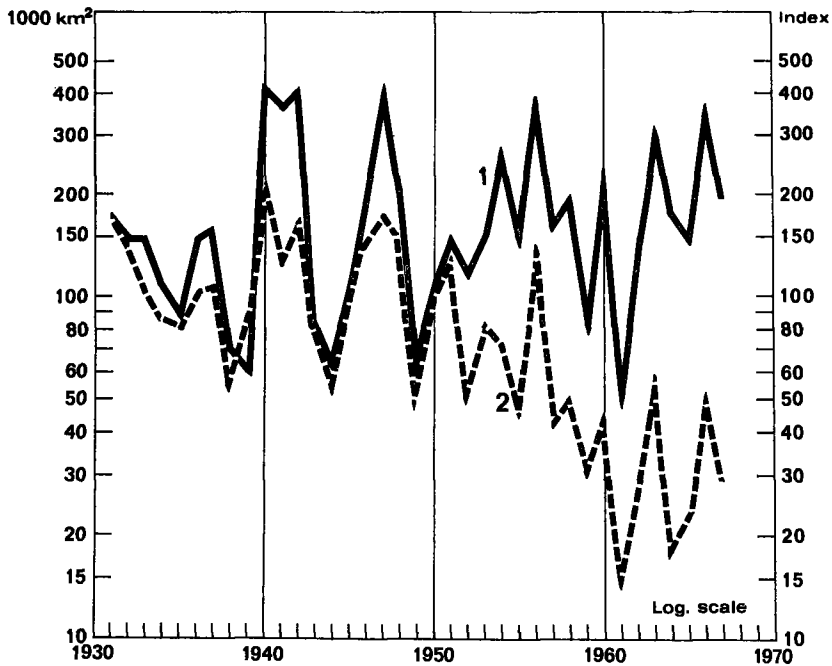
#### HOW MANY ICEBREAKERS ARE NEEDED?

Icebreakers are needed most in exceptionally cold winters when they are used from the end of November to May. In such years the ice cover of the Baltic Sea reaches its limit of approximately 400 000 sq.km. and the average number of hours' service is 2 300—2 500 for each icebreaker. The corresponding figure for average winters, during which the ice coating totals about 150 000 sq.km. at the maximum, is 1 400—1 700 hours, and in mild winters, when the ice covers 60 000—80 000 sq.km., less than 1 000 hours per icebreaker. The total capacity of icebreakers needed is determined by the demand in very severe winters, during which at present delays in traffic occur because of the shortage of icebreakers. However, the costs of acquisition and maintenance of icebreakers are relatively high and therefore it is not profitable to increase their number by much. The delivery price of a 12 000 hp »Tarmo» type icebreaker is almost 40 million marks (U.S. dollars 9 million) at 1969 prices and the relevant annual capital cost calculated at 6 per cent rate of interest on the basis of a service of 35 years amounts to 2.5 million marks. Running cost varies from 1.2 million per icebreaker in mild winters to 1.8 in normal winters and to 2.5 million in exceptionally cold winters. These costs have to be compared with the benefits obtained, i.e. the savings realized by avoiding the costs incurred when ships must wait for assistance, by increasing ships' speed at sea, by honouring the agreed times of delivery and by avoiding congestion in ports and in surface transport. The comparison of costs and benefits has revealed that, to provide for especially severe winters, two more icebreakers should be bought in the first part of the 1970's.

The demand for icebreaker services depends not only on the coldness of the winter but also on the volume of traffic and, to some extent, on its distribution between the different ports

## THE CLOSED PERIOD OF PORTS AND THE MAXIMUM ANNUAL EXPANSION OF ICE IN THE BALTIC SEA IN 1931—1969

1. The maximum annual expansion of ice in the Baltic Sea in 1931—1969 (left scale)
2. Indices of the weighted average of closed period of ports (weighted by exports), 1950 = 100 (right scale)



and various goods. Moreover, it is important to know the average period for which it is planned to keep the ports closed.

An econometric analysis covering the years 1931—1967 reveals that the increase in marine transportation has had only a slight effect on the number of hours the icebreakers have been used. Rationalization has been effected by arranging convoys and by other measures. In the 1970's it is no longer possible, however, to cope with the expected increase in traffic without acquiring some new icebreakers. It has been estimated that an increase in traffic by approximately 50 per cent over the decade will necessitate an increase in the icebreaker fleet by 20 per cent or by two more vessels.

About two-thirds of the increase in icebreaker capacity in the 1950's and 1960's has been used to shorten the time the ports were kept closed, which can be regarded as an improvement in the quality of the services of ice-

breakers. As the chart above indicates, the average period the ports were kept closed has been cut from 100 in the beginning of the 1950's to 30. The period of closure is now so short that it is neither possible nor profitable to reduce it very much in the future.

The chart also displays the maximum annual expansion of ice in the Baltic Sea, which reflects the severity of the winter. It can be seen that the variations of the first curve around its trend are similar to those of the curve representing the maximum annual expansion of ice.

It was mentioned above that the icebreaker capacity needed is dictated, apart from the increase in transportation, by the demand in extremely severe winters when the Baltic Sea is entirely or almost entirely covered by ice (the expansion of ice being more than 400 000 sq. km.). The last time the Baltic Sea was almost completely covered by ice, apart from last winter, was in 1966 when the situation became



so difficult that many Finnish export and import deliveries were blocked and the country faced considerable economic loss. Had there been more icebreakers, losses could have been avoided.

The above estimate of the need for two new icebreakers has been based on estimates of the probabilities of winters of different severities occurring. They can be calculated from statistical records of ice conditions in the Baltic during the last one hundred years. The number of additional icebreakers needed to avoid greater losses in exceptionally hard winters were then based on expert judgement. If the need for two more icebreakers due to the increase in traffic is taken into consideration, as many as four new icebreakers should be acquired in the course of the 1970's. Studies have already been carried out by the National Board of Navigation on the technical requirements for these new vessels. The construction of a larger, 16 000 hp type icebreaker has been under serious consideration.

## FINNISH ICEBREAKERS IN THE WORLD MARKET

The Finnish ship-building industry and navigation have acquired a great deal of experience in constructing and using icebreakers of various types and in strengthening the hulls of trading ships against ice. For this reason Finland has become a leading country in the building of icebreakers during the 1950's and 1960's. The Wärtsilä dock in Helsinki has built, in addition to the above listed vessels for the Finnish National Board of Navigation, eight icebreakers for the Soviet Union, five of which have been large Polar icebreakers, and three icebreakers for Sweden. At the moment the Wärtsilä dock is building three 36 000 hp Polar icebreakers for the Soviet Union and one 12 000 hp icebreaker for the Finnish National Board of Navigation. Moreover, negotiations are being conducted on a joint order by Sweden and Finland for two icebreakers.

**Domestic bond issues.** The Government has announced the issue of the 1970 bonds for subscription by the Labour Pensions Funds of farming, forest works, and construction, totalling 10.5 million marks. The loan is for a period of ten years starting on July 1, 1970, and carries interest at a rate of 8 ¼ per cent payable half-yearly. The loan is priced at par.

The Government has also authorized the following private bond issues.

Rauma-Repola Oy (wood manufacturing industry, engineering works, shipyards) has been authorized to make an issue of 10 million marks. The bonds will mature in 10 ½ years and the rate of interest is 7 ½ per cent. The price of issue is 98.5 per cent.

Typpi Oy (chemical works) has been authorized to make an issue to the value of 15 million marks. The currency period is ten years and the rate of interest 8 per cent. The loan is issued at par.

**Publications of the Bank of Finland.** »Finnish Bond Issues 1969» has been published in a common Finnish, Swedish and English edition. It contains a detailed description of the 34 loans issued in 1969 of which 6 were denominated in foreign currency and floated abroad. In addition the introduction includes statistics on domestic and foreign bonds outstanding at the end of 1959—1969 and sales of domestic bonds in 1959—1969.

**Board of Management of the Bank of Finland.** At their meeting on August 18, 1970 the Bank Supervisors appointed Mr Timo Helelä, D. Pol. Sc., presently Director of the Bank, Acting Member of the Board of Management of the Bank while Mr Ahti Karjalainen is absent as a member of the Government.

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## BANK OF FINLAND

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### Board of management

Mauno Koivisto

*Governor*

Esko K. Leinonen

A. Simonen

Ahti Karjalainen

Heikki Valvanne

*Absent as Prime Minister*

Jaakko Lassila

Timo Helelä

*ad int.*

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### Directors

Jouko J. Voutilainen

Timo Helelä

Jorma Aranko

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### Senior officials

Pertti Tammivuori

P.-E. Österlund

*Administration*

*Invisible transactions and  
capital transfers*

A. Kajantie

Helge Lindström

*Internal Audit*

*Credits*

A. Nenonen

K. Eirola

*Foreign correspondence*

*Automatic Data Processing*

K. Ignatius

Eino Suomela

*Personnel*

*Office*

Stig Törnroth

*Cash*

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### Institute for economic research

Pertti Kukkonen

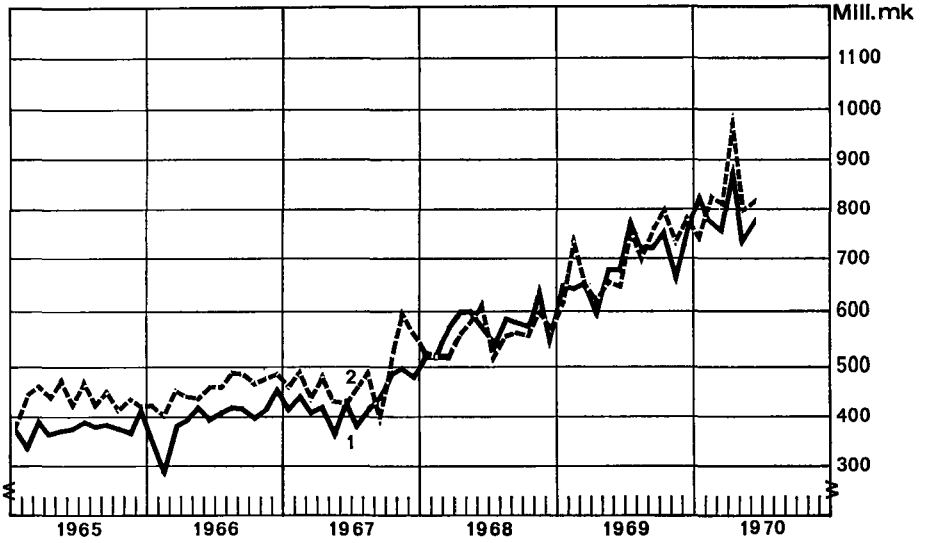
Markku Puntila

*Director*

*Head of department*

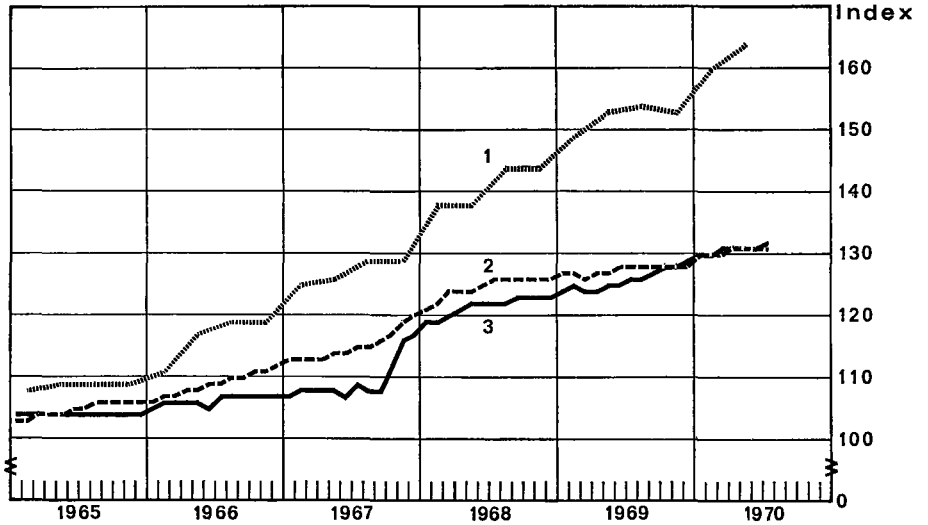
### Foreign trade, 1965-1970

1. Exports f.o.b.
  2. Imports c.i.f.
- Seasonally adjusted monthly figures



### Prices and wages, 1965-1970

1. Index of salary and wage earnings 1964 = 100, quarterly
2. Cost of living index 1964 = 100, monthly
3. Wholesale price index 1964 = 100, monthly



### Production, 1965-1970

1. Total index of industrial production 1964 = 100, seasonally adjusted monthly figures
2. Volume index of gross domestic product 1964 = 100, seasonally adjusted quarterly figures

