



# BANK OF FINLAND

*Monthly Bulletin*

The Bank of Finland's new bank note series

Price formation in the Finnish manufacturing industry

Monetary and foreign exchange policy measures from January 1986 to December 1986

The Banks' central bank financing

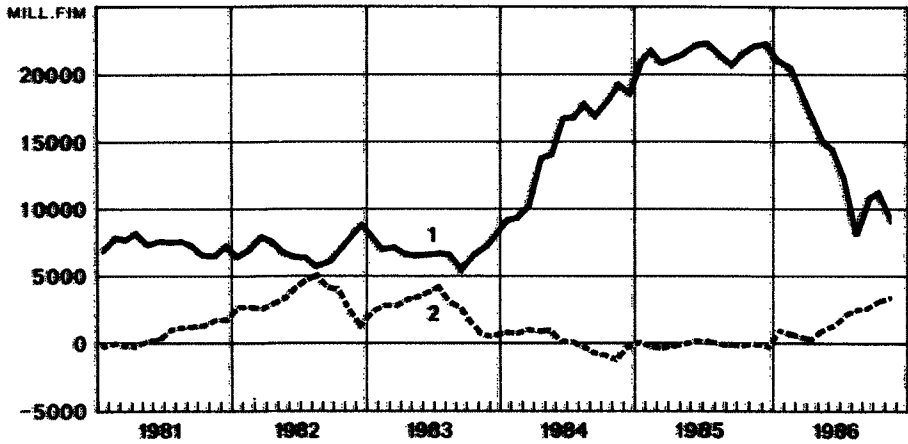
Finland's balance of payment in January — September 1986

Publication of the Bank of Finland

DECEMBER 1986

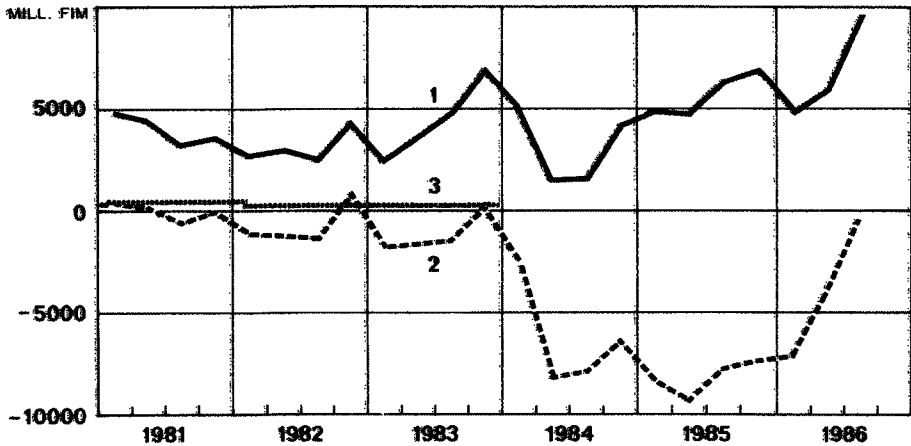
Vol. 60 No. 12

**BANK OF FINLAND'S CONVERTIBLE AND TIED FOREIGN EXCHANGE RESERVES, 1981-86**



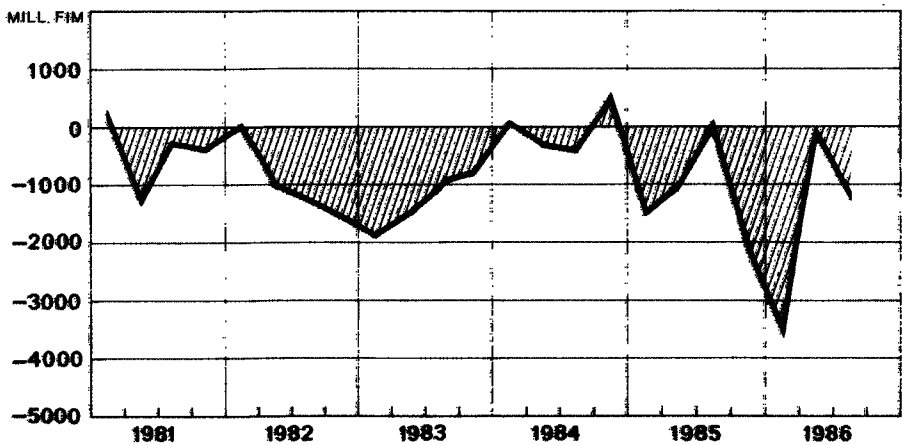
- 1. Gold and convertible currencies
- 2. Tied currencies

**DEPOSIT BANKS' CENTRAL BANK POSITION, 1981-86**



- 1. Gross central bank debt
  - 2. Net central bank debt
  - 3. Quotas
- Quarterly average of daily amounts (1 and 2)

**BALANCE OF PAYMENTS CURRENT ACCOUNT SURPLUS/DEFICIT, 1981-86**



Seasonally adjusted quarterly figures

**BANK OF FINLAND MONTHLY BULLETIN**

**INDEX TO VOL. 60, 1986**

**ARTICLES AND ITEMS**

- No. 1**     **Statement by Mr. Rolf Kullberg, Governor of the Bank of Finland, on the occasion of the closing of the accounts for 1985**  
**Revision of the foreign exchange regulations by Esa Ojanen**  
Monetary and foreign exchange policy measures from February 1985 to January 1986  
Supplementary budget  
Interest rate regulation and the call money market  
Samuel Montagu to establish a subsidiary in Finland  
Publication of the Bank of Finland
- No. 2**     **Investment activity by Paavo Peisa**  
**The impact of the rate of interest and other financial factors on investment in Finland by Heikki Koskenkylä**  
Monetary and foreign exchange policy measures from February 1985 to January 1986  
Protocol on the exchange of goods between Finland and the U.S.S.R. for 1986  
Board of Management of the Bank of Finland  
Publication of the Bank of Finland
- No. 3**     **Finland's foreign debt in 1985 by Marja Kantonen**  
**The balance of payments and foreign exchange policy in 1985 by Hannele Kuosmanen and Eero Vuohula**  
Monetary and foreign exchange policy measures from April 1985 to March 1986  
Finnish investment abroad and foreign investment in Finland in 1985
- No. 4**     **Taxation of financial assets in Finland by Sixten Korkman**  
**The reform of business taxation by Lasse Aarnio**  
Monetary and foreign exchange policy measures from April 1985 to March 1986  
Committee proposes uniform banking legislation for deposit banks  
The Bank of Finland sells its paper mill
- No. 5**     **Recent monetary policy developments by Sixten Korkman**  
**The Finnish economy in 1985 and the current outlook by Tapio Peura**  
Monetary and foreign exchange policy measures from April 1985 to March 1986
- Nos. 6—7** **Incomes policy agreements in 1986 by Harry Hendunen**  
**Public finance by Martti Lehtonen and Jarmo Pesola**  
Monetary and foreign exchange policy measures from August 1985 to June 1986  
Publications of the Bank of Finland

- No. 8**     **Finland's energy tax reform by Kare Turtiainen**  
**The cost of credit to industry by Juhani Huttunen**  
Monetary and foreign exchange policy measures from September 1985 to August 1986  
Central Bank Policy  
Finland's balance of payments January — March 1986  
The Bank of Finland investment inquiry of June 1986  
Publications of the Bank of Finland
- No. 9**     **Foreign trade by Pentti Forsman**  
**Recent developments in financial markets and monetary policy by Helvi Kinnunen**  
Monetary and foreign exchange policy measures from October 1985 to September 1986  
Cash reserve requirement  
Supplementary budget  
Finland's balance of payments January — June 1986  
Death of President Urho Kekkonen
- No. 10**    **Economic situation by Paavo Peisa**  
**Capital movements and foreign exchange markets in 1986 by Jorma Hietalahti and Heikki Soltila**  
Monetary and foreign exchange policy measures from November 1985 to October 1986
- No. 11**    **A tribute by the President of the Republic on the occasion of the Bank of Finland's 175th anniversary**  
**The Bank of Finland and the development of Finnish financial markets by Rolf Kullberg**  
Monetary and foreign exchange policy measures from December 1985 to November 1986  
The Bank of Finland's new bank note series  
Transfer of the share capital of the Mortgage Bank of Finland Ltd to Postipankki  
Publication of the Bank of Finland
- No. 12**    **The Bank of Finland's new bank note series by Antti Heinonen**  
**Price formation in the Finnish manufacturing industry by Tuomas Sukselainen**  
Monetary and foreign exchange policy measures from January 1986 to December 1986  
The Banks' central bank financing  
Finland's balance of payment in January — September 1986  
Publication of the Bank of Finland



# THE BANK OF FINLAND'S NEW BANK NOTE SERIES

by **Antti Heinonen**, Head of Department  
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A new bank note series has been introduced in Finland. New 1000, 100 and 50 markkaa notes were put into circulation in December and new 500 and 10 markkaa notes are due to be issued in 1987.

This is the third time since Finland's independence that the entire series of bank notes has been redesigned. The project got under way in the spring of 1981, when the Board of Management of the Bank of Finland decided to initiate the planning of the new notes.

The major reason for the introduction of a newly-designed series of bank notes is the desire to improve the security and reliability of Finland's paper money. The security of the bank notes that have been in circulation has diminished mainly because of new copying methods. The new notes are far more difficult to counterfeit than the previous ones. By employing more advanced printing techniques, it has been possible to furnish the notes with new recognition features.

The second reason for the reform is the increasing number of machines activated by bank notes. In addition, the Bank of Finland has adopted mechanical methods for sorting bank notes. When the authenticity of bank notes is determined mechanically or electronically, the notes must possess certain characteristics which facilitate the detection of forgeries.

The third reason for the reform is to provide Finland with a uniform series of bank notes. Over the past three decades, it has been necessary to modify the old series on a number of occasions and as a result the notes no longer constitute an integrated and artistically balanced whole.

The pictorial motifs chosen for the new bank note series emphasize the division of Finnish history into three main periods: the period of Swedish rule, the period of autonomy and the period of independence. Each of the notes has a large portrait on the front and a building associated with the period or a landscape symbolising its spirit on the back. In choosing the persons, account has been taken of how characteristic, representative and well-known their work is from the point of view of the period in question.

The Board of Management of the Bank of Finland approved the historical periods theme as a basis for further planning in the autumn of 1981, and a closed competition for the design of drafts for the notes was organized. The competition was won by Torsten Ekström, whose proposal served as a model for the designs. The final series is the outcome of cooperation among the members of a working group responsible for the artistic design of the notes and the printing techniques used. The group consisted of Kai Wuorio (chairman), Torsten Ekström, Pentti Rahikainen, all from the Security Printing House of the Bank of Finland, and Erik Bruun. Torsten Ekström was primarily responsible for the design of the fronts of the notes and Erik Bruun for the backs of the notes. The artistic group of the Security Printing House, headed by Pentti Rahikainen, was responsible for other artistic features relating to the security of the notes. Eeva Oivo painted most of the portraits while Paavo Huovinen designed the watermarks and painted one of the portraits. Kai Wuorio was the expert on printing techniques.

The implementation of the series was directed and supervised by a design committee under the chairmanship of Dr. Ele Alenius, Member

of the Board of Management of the Bank of Finland. The members of the committee consisted of experts from the fields of art, history, numismatics and note printing.

The final decision on the new note series was made by the Parliamentary Bank Supervisors on the proposal of the Board of Management of the Bank of Finland in February 1984.

The pictorial motif of the 1000 markkaa note relates to the period of Swedish rule. On the front of the note there is a portrait of Anders Chydenius (1729 - 1803). Chydenius was a clergyman and an important economist. It is on the basis of his writings published in the 1760s pointing out the defects of the mercantilist economic system that he has been regarded as one of the forerunners of Adam Smith.

The back of the 1000 markkaa note shows the King's Gate at the fortress of Suomenlinna or Viapori, as it was once called. The sea fortress, located at the entrance to Helsinki, was the most ambitious construction project undertaken in Finland during the Swedish rule. The predominant colour of the 1000 markkaa note is blue.

The pictorial motifs of the 100 markkaa note relate to the latter part of the period of autonomy and the rise of Finnish culture. The front of the note features a portrait of Jean Sibelius (1865–1957). Sibelius is the best-known Finnish composer. His output also played an important ideological role in the process that, starting in the 1890s, led up to Finland's cultural and political independence.

The back of the 100 markkaa note shows a view of a forest lake, which has associations with the national romantic spirit at the turn of the century and the music of Sibelius. The

predominant colour of the 100 markkaa note is green.

The 50 markkaa note is associated with the period of independence. On the front of the note there is a portrait of Alvar Aalto (1898 - 1976). Aalto was one of the most outstanding architects of the functionalist period and the period succeeding it. In addition, Aalto was active in community planning and he is also noted for his work as a designer of furniture, glassware and light fixtures.

The back of the 50 markkaa note shows Finlandia Hall, located in Helsinki. It represents Alvar Aalto's later production. The most noteworthy international events hosted at Finlandia Hall have been the Conference on Security and Co-operation in Europe in 1975 and its 10th anniversary meeting in 1985. The predominant colour of the 50 markkaa note is brown.

The size of the new notes is exactly the same as that of the old ones (69 mm x 142 mm).

The new notes will be introduced gradually and will circulate alongside the old bank notes. The old bank notes will remain legal tender and they will be withdrawn from circulation as soiled and damaged notes are returned to the Bank of Finland in the normal course of note circulation.

In connection with the issue of the new notes, the Bank of Finland has conducted a publicity campaign aimed at making the details of the notes known to the public. Among other things, the campaign has included a brochure, which has been distributed to every home in Finland, a smaller brochure available in banks and post-offices and public announcements on TV. The Bank of Finland has also notified central banks and other banks abroad of the new notes.

December 1, 1986



	1985		1986			
	Nov. 29	Dec. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28
<b>Assets</b>						
Gold and foreign currency claims	22 552	22 650	14 375	13 623	14 160	13 131
Gold	1 732	2 081	2 081	2 081	2 081	2 081
Special drawing rights	932	931	987	984	986	989
IMF reserve tranche	783	775	804	802	801	799
Convertible currencies	18 854	18 608	7 240	6 353	6 733	5 741
Tied currencies	251	255	3 263	3 403	3 559	3 521
Other foreign claims	2 835	2 645	2 566	2 566	2 566	2 566
Markka subscription to Finland's IMF quota	2 835	2 645	2 566	2 566	2 566	2 566
Claims on financial institutions	9 482	9 256	11 528	12 298	11 710	13 529
Banks' cheque accounts	13	—	—	—	—	—
Call money advances	5 901	5 219	7 194	8 035	7 397	9 181
Till-money credits	1 450	1 925	1 713	1 637	1 675	1 709
Bonds	2 073	2 065	2 103	2 107	2 111	2 111
Other claims on financial institutions	45	47	518	519	527	528
Claims on the public sector	1 320	1 023	1 003	1 004	1 007	1 008
Government promissory notes	280	—	—	—	—	—
Bonds	152	118	74	74	74	73
Total coinage	888	891	929	930	933	935
Other claims on the public sector	—	14	0	—	—	—
Claims on corporations	4 865	4 679	4 917	4 948	4 959	4 931
Financing of exports	1 737	1 601	1 749	1 771	1 792	1 773
Financing of domestic deliveries	2 970	2 924	2 895	2 905	2 895	2 886
Bonds	82	81	66	66	66	66
Other claims on corporations	76	73	207	206	206	206
Other assets	144	146	149	149	149	148
<b>Total</b>	<b>41 198</b>	<b>40 399</b>	<b>34 538</b>	<b>34 588</b>	<b>34 551</b>	<b>35 313</b>
<b>Liabilities</b>						
Foreign currency liabilities	460	576	51	53	48	52
Convertible accounts	43	36	29	30	30	28
Tied currencies	417	540	22	23	18	24
Other foreign liabilities	3 688	3 494	3 415	3 413	3 413	3 410
IMF markka accounts	2 835	2 645	2 566	2 566	2 566	2 566
Allocations of special drawing rights	853	849	849	847	847	844
Notes and coin in circulation	7 442	8 072	7 995	7 933	7 919	8 024
Notes	6 703	7 304	7 213	7 150	7 135	7 237
Coin	739	768	782	783	784	787
Liabilities to financial institutions	14 125	12 153	9 222	9 461	9 472	10 208
Banks' cheque accounts	21	0	0	0	0	0
Call money deposits	3 881	1 205	60	311	315	931
Cash reserve deposits	10 097	10 222	9 052	9 052	9 052	9 180
Capital import deposits	34	639	21	20	20	20
Other liabilities to financial institutions	92	87	89	78	85	77
Liabilities to the public sector	4 400	4 300	801	801	800	801
Cheque accounts	0	0	1	1	0	1
Government deposit account	4 400	4 300	800	800	800	800
Capital import deposits	—	—	—	—	—	—
Other liabilities to the public sector	0	0	0	0	0	0
Liabilities to corporations	4 252	4 267	5 102	5 078	5 062	5 058
Deposits for investment and ship purchase	3 819	3 841	4 763	4 738	4 724	4 715
Capital import deposits	429	424	334	335	335	340
Other liabilities to corporations	4	2	5	5	3	3
Other liabilities	14	14	24	19	20	22
Valuation account and reserves	590	1 639	2 044	1 946	1 933	1 854
SITRA's capital	400	400	400	400	400	400
Capital accounts	5 827	5 484	5 484	5 484	5 484	5 484
Primary capital	5 000	5 000	5 000	5 000	5 000	5 000
Reserve fund	764	764	484	484	484	484
Undisposed profits	—	—	—	—	—	—
Net earnings	63	-280	—	—	—	—
<b>Total</b>	<b>41 198</b>	<b>40 399</b>	<b>34 538</b>	<b>34 588</b>	<b>34 551</b>	<b>35 313</b>

## BANK OF FINLAND

Mill. FIM

End of year or month	Foreign sector						Public sector			
	Gold, SDRs, IMF reserve tranche	Convertible currencies, net	Total convertible reserves (1 + 2)	Tied currencies, net	Other claims, net	Net claims (3 to 5)	Claims	Certificates of deposit and deposit account	Other liabilities	Net liabilities (8 - 7 + 9)
	1	2	3	4	5	6	7	8	9	10
1982	2 444	6 561	9 005	1 525	-1 447	9 083	1 040	1 700	50	710
1983	2 360	5 835	8 195	550	-794	7 951	2 178	3 000	0	822
1984	3 527	15 303	18 830	-337	-917	17 576	1 951	4 200	77	2 326
1985	3 787	18 572	22 359	-285	-849	21 225	1 023	4 300	0	3 277
1985										
Nov.	3 447	18 811	22 258	-166	-853	21 239	1 320	4 400	0	3 080
Dec.	3 787	18 572	22 359	-285	-849	21 225	1 023	4 300	0	3 277
1986										
Jan.	3 797	17 353	21 150	1 090	-849	21 391	1 036	1 000	14	-22
Feb.	3 748	16 865	20 613	740	-833	20 520	972	1 500	0	528
March	3 837	14 581	18 418	500	-848	18 070	976	1 100	0	124
April	3 800	13 017	16 817	421	-830	16 408	978	1 100	0	122
May	3 908	11 125	15 033	989	-866	15 156	984	1 100	1	117
June	3 875	10 603	14 478	1 433	-859	15 052	993	1 250	1	258
July	3 874	8 588	12 462	2 209	-859	13 812	982	1 350	1	369
Aug.	3 883	4 475	8 358	2 576	-846	10 088	984	1 500	1	517
Sept.	3 870	6 989	10 859	2 654	-849	12 664	1 004	890	0	-114
Oct.	3 865	7 490	11 355	3 225	-846	13 734	1 002	1 000	1	-1
Nov.	3 869	5 713	9 582	3 497	-844	12 235	1 008	800	1	-207

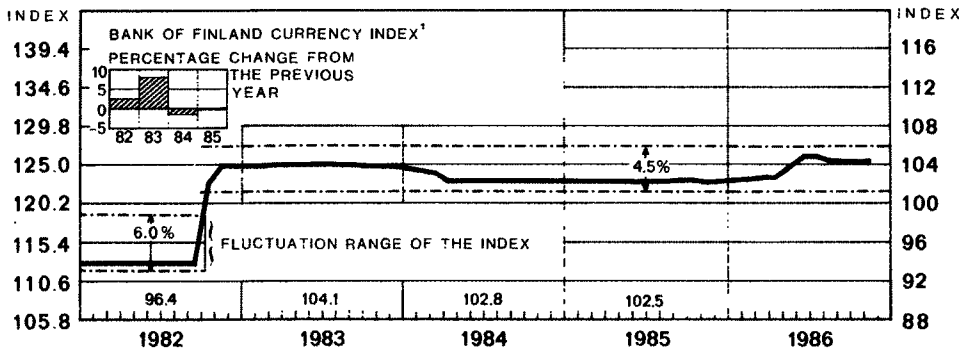
## OFFICIAL FOREIGN EXCHANGE RESERVES

Mill. FIM

	Dec. 31, 1985	Aug. 29, 1986	Sept. 30, 1986	Oct. 31, 1986	Nov. 28, 1986
Gold	2 081	2 081	2 081	2 081	2 081
SDRs	931	983	986	983	989
IMF reserve tranche	775	819	803	801	799
Convertible currencies, net	18 572	4 475	6 989	7 490	5 713
Total convertible reserves, net	22 359	8 358	10 859	11 355	9 582
Tied currencies, net	-285	2 576	2 654	3 225	3 497
Total reserves, net	22 074	10 934	13 513	14 580	13 079

End of year or month	Domestic financial sector						Corporate sector				Notes and coin in circulation
	Till-money credits	Claims on cheque accounts, net	Demand for call money by deposit banks	Supply of call money by deposit banks	Cash reserve deposits	Other liabilities, net	Net claims (1+2+3-4-5-6)	Permanent special financing schemes	Liabilities, net	Net claims (8-9)	
	1	2	3	4	5	6	7	8	9	10	11
1982	889	163	3 126	1 470	3 132	-1 042	618	4 302	999	3 303	6 062
1983	942	443	5 785	610	5 039	-1 555	3 076	4 529	1 282	3 247	6 574
1984	1 563	383	5 018	2 216	8 696	-1 235	-2 713	4 646	2 614	2 032	7 442
1985	1 925	0	5 219	1 205	10 222	-1 386	-2 897	4 525	4 113	412	8 072
1985											
Nov.	1 450	-8	5 901	3 881	10 097	-1 992	-4 643	4 707	4 094	613	7 442
Dec.	1 925	0	5 219	1 205	10 222	-1 386	-2 897	4 525	4 113	412	8 072
1986											
Jan.	1 558	0	1 852	1 734	9 828	-1 454	-6 698	4 654	4 434	220	7 455
Feb.	1 531	0	3 174	2 221	9 556	-1 530	-5 542	4 654	4 282	372	7 499
March	1 657	0	3 806	1 102	8 942	-1 494	-3 087	4 691	4 299	392	7 840
April	1 984	0	5 285	1 204	8 846	-1 541	-1 240	4 665	4 513	152	8 094
May	1 842	0	6 070	477	8 862	-1 411	-16	4 644	4 067	577	8 046
June	1 875	0	7 939	2 098	8 891	-2 022	847	4 552	4 585	-33	8 156
July	1 844	0	7 936	612	9 030	-2 070	2 208	4 552	4 669	-117	8 086
Aug.	1 650	0	11 525	252	9 023	-2 119	6 019	4 550	4 718	-168	7 969
Sept.	1 847	0	9 761	1 886	8 954	-2 129	2 897	4 552	4 750	-198	7 903
Oct.	1 755	0	7 128	88	9 052	-2 557	2 300	4 650	4 863	-213	7 973
Nov.	1 709	0	9 181	931	9 180	-2 542	3 321	4 659	4 786	-127	8 024

<sup>1</sup> The left-hand scale depicts movements in the external value of the markka under the index in use until December 31, 1983 (1974 = 100), and the right-hand scale movements in the external value of the markka under the revised index introduced on January 1, 1984 (1982 = 100).

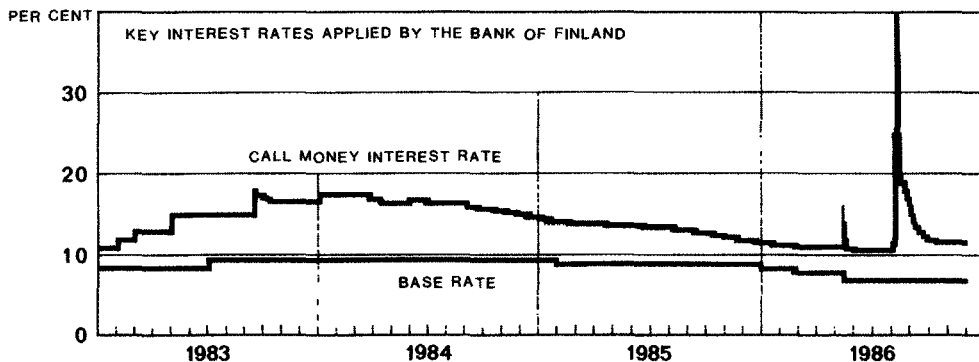


# MONETARY POLICY INDICATORS

Average for period	Gross central bank debt of the deposit banks mill. FIM	Net central bank debt of the deposit banks mill. FIM	Cash reserve deposits of the deposit banks mill. FIM	Cash reserve requirement %	Call money credit extended by the Bank of Finland	Call money interest rate %	Average cost of gross central bank debt %	Base rate <sup>1</sup> %	Average lending rate of the commercial banks <sup>2</sup> %
	1	2	3	4	5	6	7	8	9
1981	4 095	-33	2 795	3.5	2 161	11.48	11.61	9.25	9.84
1982	3 201	-783	2 778	3.1	1 571	11.64	11.99	8.81	9.33
1983	4 539	-1 213	4 345	4.3	2 724	15.37	15.14	9.00	9.56
1984	3 176	-6 365	6 325	5.4	-39	16.53	16.53	9.50	10.49
1985	5 812	-8 293	9 578	5.6	1 285	13.37	13.37	9.04	10.41
1985									
Sept.	7 771	-6 928	9 930	5.6	3 002	13.11	13.11	9.00	10.42
Oct.	7 516	-7 079	9 982	5.6	2 904	12.78	12.78	9.00	10.43
Nov.	6 407	-8 485	10 024	5.6	1 539	12.37	12.37	9.00	10.40
Dec.	7 084	-6 784	10 101	5.6	3 317	11.96	11.96	9.00	10.37
1986									
Jan.	5 280	-7 742	10 210	5.3	2 467	11.64	11.64	8.50	9.90
Feb.	4 242	-8 187	9 818	5.0	1 631	11.40	11.40	8.50	9.90
March	5 146	-5 927	9 457	4.7	3 530	11.21	11.21	8.00	9.49
April	5 034	-5 565	8 939	4.7	3 374	11.20	11.20	8.00	9.49
May	6 645	-3 566	8 847	4.7	5 281	12.02	12.02	7.00	8.78
June	6 393	-3 409	8 863	4.7	5 454	10.83	10.83	7.00	8.82
July	7 556	-2 677	8 895	4.7	6 218	10.80	10.80	7.00	8.76
Aug.	11 014	1 239	9 030	4.7	10 269	24.17	24.17	7.00	8.79
Sept.	10 290	68	9 021	4.7	9 088	13.86	13.86	7.00	8.77
Oct.	7 846	-1 524	8 960	4.7	7 436	11.93	11.93	7.00	8.75
Nov.	7 616	-1 784	9 047	4.7	7 263	11.80	11.80	7.00	..

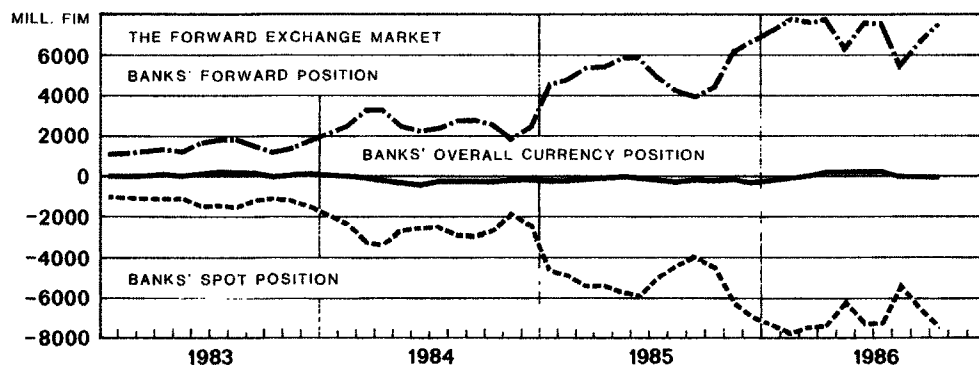
<sup>1</sup> End of period for monthly figures.

<sup>2</sup> End of period.



# FORWARD EXCHANGE MARKETS IN FINLAND

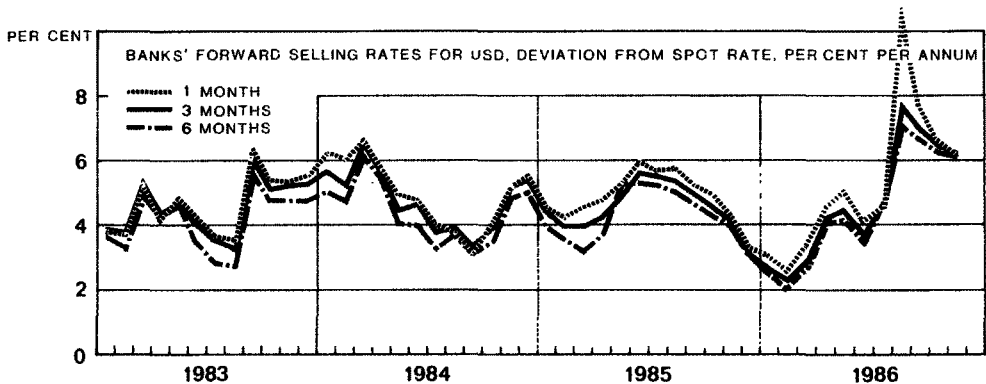
Period	Banks' forward positions in mill. FIM with						Banks' forward selling rates for USD		
	Domestic firms			Foreign banks Net	Bank of Finland Net	Overall Net	Deviation from spot rate, per cent per annum		
	Assets	Liabilities	Net				1 month	3 months	6 months
	1	2	3	4	5	6	7	8	9
1984	22 921	1 394	21 527	2 002	-19 962	3 746	5.6	5.5	5.1
1985	16 982	1 733	15 249	708	-9 005	6 876	3.3	3.2	3.1
1985									
June	21 221	2 259	18 962	1 941	-15 352	5 478	6.0	5.7	5.4
July	19 534	2 250	17 284	2 418	-14 224	5 558	5.7	5.6	5.3
Aug.	18 271	2 727	15 544	1 083	-12 493	4 163	5.8	5.4	5.1
Sept.	17 755	2 889	14 866	92	-11 101	3 811	5.3	5.0	4.7
Oct.	17 666	2 795	14 871	805	-9 813	5 986	5.0	4.6	4.3
Nov.	17 510	2 014	15 496	1 200	-10 032	6 702	4.3	4.1	4.0
Dec.	16 982	1 733	15 249	708	-9 005	6 876	3.3	3.2	3.1
1986									
Jan.	17 233	1 945	15 288	543	-8 349	7 457	3.1	2.7	2.6
Feb.	16 911	1 989	14 923	0	-7 015	7 952	2.7	2.4	2.1
March	16 365	2 095	14 270	11	-6 298	8 042	3.5	3.0	2.8
April	15 350	1 713	13 638	-854	-4 742	7 956	4.6	4.2	4.1
May	15 231	2 505	12 726	-1 642	-3 956	6 957	5.1	4.5	4.2
June	13 094	1 665	11 429	-575	-2 619	8 068	4.2	3.8	3.6
July	12 032	1 518	10 514	-1 170	-1 949	7 619	4.6	4.7	4.8
Aug.	12 351	2 393	9 958	-2 263	-1 559	6 006	12.5	7.8	7.1
Sept.	13 762	2 179	11 583	-1 981	-1 291	8 116	7.8	7.1	6.7
Oct.	13 147	2 047	11 100	-1 464	-996	8 388	6.6	6.5	6.3



# FOREIGN EXCHANGE RATES

Average selling rates for foreign exchange, FIM

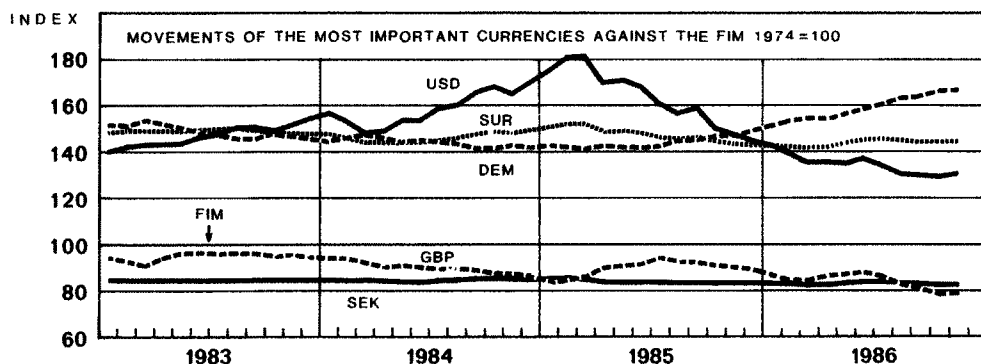
Period	New York 1 US USD	Montreal 1 C CAD	London 1 £ GBP	Dublin 1 Ir£ IEP	Stockholm 100 Skr SEK	Oslo 100 Nkr NOK	Copenhagen 100 Dkr DKK	Frankfurt 100 DM DEM	Amsterdam 100 Hfl NLG	Brussels 100 FB BEC	BEL
	1	2	3	4	5	6	7	8	9	10	11
1981	4.315	3.602	8.731	6.976	85.74	75.54	60.96	191.31	173.43	11.688	11.095
1982	4.820	3.913	8.423	6.854	77.03	74.84	57.93	198.76	180.66	10.584	9.859
1983	5.570	4.524	8.456	6.957	72.75	76.44	61.07	218.61	195.66	10.934	10.742
1984	6.010	4.645	8.023	6.533	72.77	73.84	58.16	211.65	187.72	10.428	10.274
1985	6.206	4.554	8.000	6.590	72.22	72.31	58.71	211.42	187.45	10.483	10.421
1985											
Oct.	5.690	4.168	8.106	6.676	71.63	72.10	59.41	215.47	191.11	10.633	10.556
Nov.	5.579	4.060	8.042	6.668	71.60	71.66	59.53	215.40	191.26	10.654	10.608
Dec.	5.487	3.941	7.952	6.737	71.57	71.85	60.23	218.51	194.03	10.722	10.666
1986											
Jan.	5.419	3.860	7.747	6.772	71.49	71.90	60.64	222.15	197.11	10.875	10.733
Feb.	5.258	3.748	7.513	6.827	71.14	72.27	61.15	225.39	199.50	11.018	10.904
March	5.131	3.659	7.531	6.868	71.01	72.07	61.43	226.89	200.97	11.087	10.962
April	5.128	3.700	7.682	6.853	70.92	71.80	61.17	225.64	200.20	11.066	10.970
May	5.105	3.717	7.774	6.985	71.57	68.98	62.01	229.35	203.69	11.237	11.168
June	5.195	3.745	7.840	7.055	72.17	68.34	62.77	232.54	206.54	11.389	11.307
July	5.074	3.681	7.671	7.067	71.93	68.03	63.06	235.78	209.25	11.460	11.372
Aug.	4.940	3.564	7.356	6.665	71.41	67.31	63.72	239.66	212.56	11.580	11.465
Sept.	4.918	3.552	7.256	6.632	71.27	67.17	63.77	241.14	213.60	11.646	11.525
Oct.	4.896	3.532	7.005	6.669	71.26	66.74	64.89	244.46	216.31	11.780	11.692
Nov.	4.959	3.583	7.072	6.685	71.33	65.99	64.95	245.00	216.85	11.795	11.725



## Average selling rates for foreign exchange. FIM

Zurich 100 Sfr CHF	Paris 100 FF FRF	Rome 100 Lit ITL	Vienna 100 ÖS ATS	Lisbon 100 Esc PTE	Reykjavik 100 lkr ISK	Madrid 100 Ptas ESB	Tokyo 100 Y JPY	Moscow 1 Cl Rbl SUR	i special drawing right SDR	Currency index <sup>1</sup>
12	13	14	15	16	17	18	19	20	21	22
220.34	79.92	0.385	27.17	7.17	60.35	4.72	1.967	5.986	5.071 40	113.1
237.79	73.65	0.358	28.31	6.13	40.79	4.41	1.943	6.624	5.305 63	115.9
265.70	73.53	0.369	31.11	5.14	23.25	3.91	2.351	7.491	5.943 25	125.1
256.42	69.07	0.344	30.13	4.14	19.39	3.75	2.534	7.357	6.147 39	102.8
253.60	69.40	0.327	30.12	3.67	15.20	3.66	2.610	7.419	6.278 79	102.5
262.81	70.80	0.320	30.69	3.52	13.85	3.54	2.653	7.262	6.051 77	102.6
262.36	70.80	0.320	30.66	3.50	13.63	3.51	2.740	7.209	6.016 47	102.4
261.01	71.57	0.322	31.12	3.48	13.36	3.54	2.710	7.183	5.971 01	102.5
262.42	72.55	0.327	31.63	3.49	13.03	3.56	2.712	7.164	5.940 24	102.6
269.08	73.58	0.332	32.10	3.50	12.80	3.59	2.850	7.161	5.926 58	102.7
269.37	73.91	0.335	32.36	3.48	12.67	3.62	2.876	7.131	5.888 85	102.8
269.68	71.33	0.331	32.17	3.46	12.61	3.58	2.931	7.148	5.886 47	102.7
275.83	72.13	0.335	32.65	3.46	12.74	3.62	3.062	7.230	5.954 02	103.8
282.20	73.11	0.340	33.12	3.47	12.81	3.65	3.099	7.301	6.039 58	105.0
290.80	73.42	0.345	33.55	3.45	12.58	3.70	3.201	7.313	6.024 88	105.0
297.48	73.68	0.350	34.09	3.41	12.40	3.69	3.209	7.278	5.960 80	104.5
297.72	73.79	0.351	34.31	3.39	12.38	3.68	3.182	7.255	5.943 98	104.5
298.52	74.81	0.355	34.81	3.37	12.36	3.69	3.139	7.252	5.922 50	104.5
294.35	75.06	0.355	34.83	3.35	12.43	3.66	3.049	7.263	5.933 16	104.6

<sup>1</sup> Until December 31, 1983 the base year was 1974=100.  
Since January 1, 1984 the base year has been 1982=100.



# DEPOSITS BY THE PUBLIC

Mill. FIM

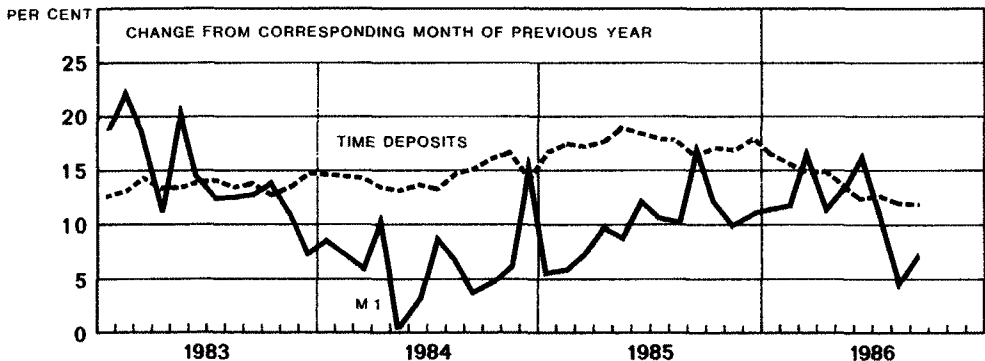
End of year and month	Demand deposits				Time deposits				Total (4+9)	
	Commercial banks	Savings banks & Co-op. banks	Posti-pankki	All deposit banks (1 to 3)	Commercial banks	Savings banks	Co-op. banks	Posti-pankki		All deposit banks (5 to 8)
	1	2	3	4	5	6	7	8	9	10
1982	7 155	3 874	3 049	14 078	29 465	25 883	21 040	8 665	85 054	99 132
1983	7 056	4 567	3 676	15 300	34 302	29 273	24 175	9 938	97 689	112 988
1984	8 470	5 268	4 463	18 201	39 354	33 333	27 900	11 266	111 852	130 053
1985*	9 382	5 988	5 027	20 397	49 240	38 167	32 133	12 671	132 210	152 607

1985\*

July	7 927	4 874	5 283	18 084	44 294	36 219	30 455	11 799	122 767	140 851
Aug.	7 222	4 917	5 739	17 878	44 796	36 551	30 741	12 083	124 171	142 049
Sept.	8 081	5 072	6 243	19 397	44 770	36 469	30 658	11 973	123 870	143 267
Oct.	8 281	5 194	5 547	19 022	45 896	36 825	30 892	12 366	125 979	145 001
Nov.	7 654	5 038	5 057	17 749	46 887	37 016	31 155	12 220	127 278	145 027
Dec.	9 382	5 988	5 027	20 397	49 240	38 167	32 133	12 671	132 210	152 607

1986\*

Jan.	8 239	5 350	5 210	18 798	49 624	38 550	32 842	12 867	133 883	152 681
Feb.	7 854	5 028	5 133	18 015	50 700	39 154	33 413	12 983	136 250	154 265
March	7 552	5 105	5 678	18 335	49 777	39 307	33 586	13 032	135 703	154 037
April	8 228	5 464	5 045	18 737	50 261	39 407	33 796	13 184	136 647	155 384
May	8 188	5 532	5 542	19 262	50 549	39 737	33 966	13 283	137 534	156 796
June	9 843	5 854	5 769	21 467	50 249	40 498	34 639	12 784	138 170	159 636
July	9 141	5 837	5 629	20 606	49 832	40 837	34 897	12 981	138 547	159 153





ADVANCES TO THE PUBLIC – MONEY SUPPLY

Mill. FIM

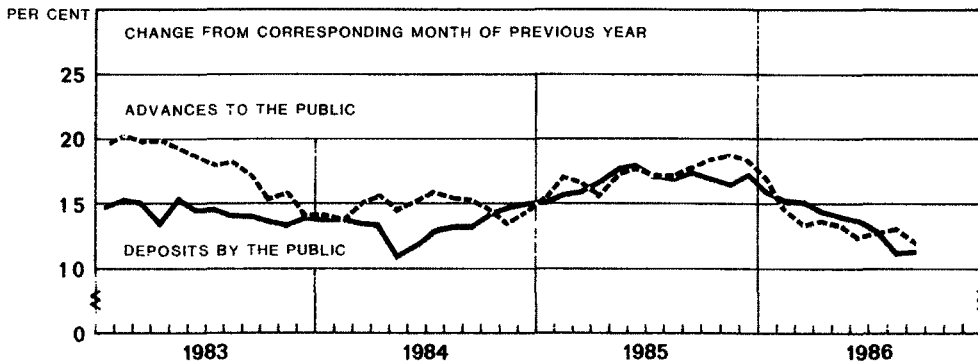
End of year and month	Advances granted by				Types of advances			Total (1 to 4) (5 to 7)	Money Supply	
	Commercial banks	Savings banks	Co-op. banks	Post-pankki	Loans & bills in domestic currency	Cheque credits	Domestic credits in foreign currency		M <sub>1</sub>	M <sub>1</sub> – Quasi-Money
	1	2	3	4	5	6	7		8	9
1982	48 620	25 682	23 601	12 684	93 014	3 468	14 105	110 587	19 917	107 549
1983	56 162	29 276	27 322	13 471	104 627	4 350	17 253	126 231	21 427	121 906
1984	65 965	32 705	31 164	14 687	118 924	5 233	20 363	144 520	24 945	141 658
1985*	81 669	36 991	35 751	16 745	140 139	6 313	24 704	171 155	27 694	166 652

1985\*

July	77 104	34 848	33 378	16 074	128 886	6 242	26 275	161 403	24 902	154 118
Aug.	77 677	35 276	33 824	16 082	130 846	6 333	25 680	162 859	24 783	155 013
Sept.	79 367	35 764	34 411	16 376	133 113	6 637	26 167	165 917	26 092	156 195
Oct.	80 304	36 141	34 826	16 442	134 924	6 333	26 456	167 712	25 607	158 054
Nov.	81 573	36 467	35 216	16 727	136 739	6 373	26 872	169 984	24 691	157 772
Dec.	81 669	36 991	35 751	16 745	140 139	6 313	24 704	171 155	27 694	166 652

1986\*

Jan.	83 252	37 502	36 049	17 168	142 071	7 148	24 751	173 971	26 029	167 354
Feb.	83 136	37 729	36 388	17 140	143 206	7 294	23 893	174 393	25 304	168 731
March	82 513	38 022	36 698	17 094	144 392	6 935	23 000	174 327	25 881	168 792
April	83 121	38 497	37 076	17 829	145 838	7 269	23 416	176 523	26 370	170 568
May	84 423	38 968	37 488	18 026	148 109	7 074	23 722	178 905	26 622	171 161
June	84 856	39 447	37 967	18 532	149 623	7 634	23 545	180 802	28 879	173 879
July	85 332	39 927	38 490	18 504	151 405	7 369	23 480	182 253	27 670	173 524



# STATE FINANCES

Mill. FIM

Revenue	Jan.-March		Expenditure	Jan.-March	
	1985	1986		1985	1986
Income and wealth tax (net)	4 985	6 305	Wages, salaries, pensions etc.	3 332	3 575
Gross receipts	14 851	14 641	Repair and maintenance	313	350
Refunds & local authorities	-9 865	-8 336	Other consumption expenditure	2 095	2 480
Other taxes on income and wealth	153	92	Total consumption expenditure	5 739	6 406
Employers' child allowance payments	169	3	State aid to local authorities	4 060	5 324
Sales tax	5 259	6 041	State aid to industries	2 707	2 638
of which: agric. price subsidies			Child allowances	613	8
Customs duties and import charges and levies	370	334	Share in national pensions and sickness insurance schemes	589	443
Excise duties	2 271	2 306	Deficit of State enterprises	308	323
Excise duty on alcoholic bevs.	759	796	Other transfer expenditure	2 805	3 899
Excise duty on tobacco	389	397	Total transfer expenditure	11 082	12 635
Excise duty on liquid fuel	770	735	Machinery and equipment	486	517
Other excise duties	352	377	Construction of buildings	212	214
Tax on autom. and motor-cycles	655	564	Land and waterway construction	436	470
Stamp duties	617	781	Total real investment	1 134	1 201
Special diesel etc. vehicles tax	92	87	Interest on State debt	1 527	1 083
Other taxes and similar revenue	401	343	Other expenditure	3	4
Total taxes	14 973	16 855	Total other expenditure	1 530	1 087
Miscellaneous revenue	1 356	1 469	Increase in inventories	-82	74
Interest, dividends etc.	241	206	Lending	783	591
Surplus of state enterprises	651	589	Other financial investment	313	169
Redemptions of loans granted	203	155	<b>Total expenditure</b>	<b>20 499</b>	<b>22 163</b>
<b>Total revenue</b>	<b>17 424</b>	<b>19 274</b>	Redemption of foreign loans	338	1 300
Foreign borrowing	747	1 182	Redemption of domestic loans	1 614	1 290
Domestic borrowing	2 259	2 862	<b>Total redemptions</b>	<b>1 952</b>	<b>2 590</b>
<b>Total borrowing</b>	<b>3 006</b>	<b>4 044</b>			
<b>Deficit (+) or surplus (-)</b>	<b>2 021</b>	<b>1 435</b>			
Total	22 451	24 753	Total	22 451	24 753

State debt	1984	1985	1986			
	Dec.	Dec.	July	Aug.	Sept.	Oct.
<b>Foreign debt</b>	24 946	25 677	26 896	26 012	26 922	26 540
Long-term debt	19 057	20 872	22 648	22 974	23 048	23 836
Short-term credit	266	432	600	600	383	384
<b>Domestic debt</b>	19 323	21 304	23 248	23 574	23 431	24 220
<b>Total State debt</b>	<b>44 269</b>	<b>46 981</b>	<b>50 144</b>	<b>49 586</b>	<b>50 353</b>	<b>50 760</b>
Total debt mill. \$	6 855	8 562	9 883	10 037	10 238	10 368

# FOREIGN TRADE

Mill. FIM

Period	Value, mill. FIM		
	Exports f.o.b	Imports c.i.f.	Surplus of exports (+) or imports (-)
	1	2	3
1981	60 308	61 269	-961
1982	63 026	64 751	-1 725
1983	69 692	71 528	-1 836
1984	80 904	74 682	+6 222
1985	84 028	81 520	+2 508

1986*			
Period	Exports f.o.b	Imports c.i.f.	Surplus of exports (+) or imports (-)
Jan.	6 792	7 467	-675
Feb.	6 923	6 309	+614
March	6 309	6 971	-662
April	6 453	6 794	-341
May	6 306	5 146	+1 161
June	5 561	3 931	+1 630
July	6 997	6 641	+356
Aug.	6 477	6 484	-8
Sept.	7 769	7 627	+143

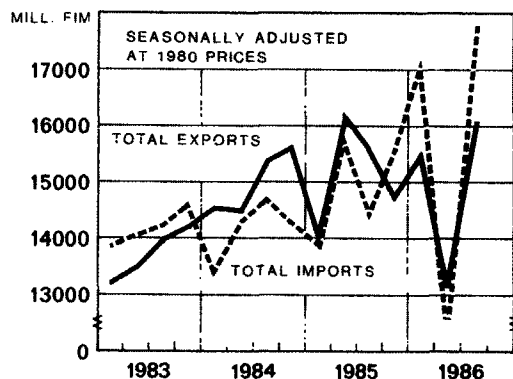
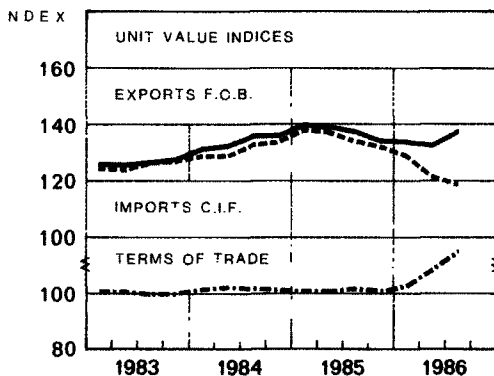
Jan.-Sept.			
Year	Exports f.o.b	Imports c.i.f.	Surplus of exports (+) or imports (-)
1985	63 279	59 714	+3 565
1986*	59 588	57 370	+2 218

Period	Indices of exports and imports 1980=100				
	Volume		Unit value		Terms of trade
	Exports	Imports	Exports	Imports	
	1	2	3	4	5
1981	103	94	111	112	99
1982	100	95	119	117	101
1983	104	98	127	125	101
1984	114	98	134	131	102
1985	115	104	138	135	102

1984					
Period	Volume Exports	Volume Imports	Unit value Exports	Unit value Imports	Terms of trade
July-Sept.	108	99	137	133	102
Oct.-Dec.	121	101	137	134	102

1985					
Period	Volume Exports	Volume Imports	Unit value Exports	Unit value Imports	Terms of trade
Jan.-March	108	93	141	139	101
Apr.-June	122	106	139	138	101
July-Sept.	113	100	138	135	102
Oct.-Dec.	117	113	135	133	102

1986*					
Period	Volume Exports	Volume Imports	Unit value Exports	Unit value Imports	Terms of trade
Jan.-March	113	110	134	130	104
Apr.-June	104	90	133	122	109
July-Sept.	117	119	138	119	116



# FOREIGN TRADE BY MAIN GROUPS

Mill. FIM

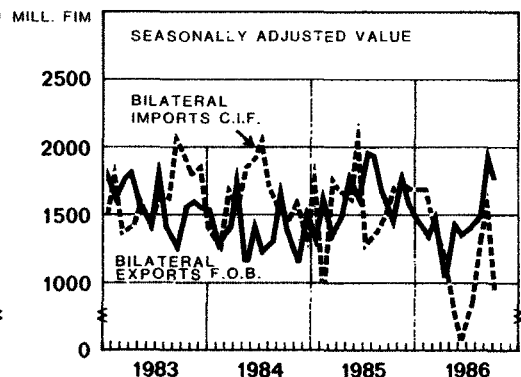
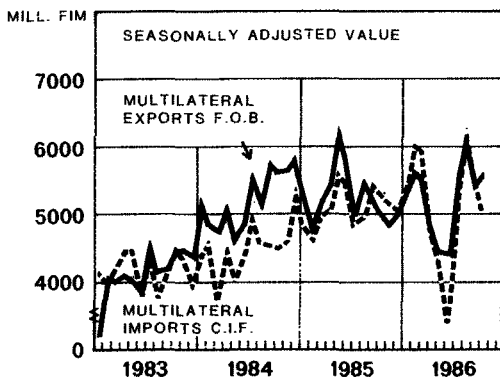
Period	Exports, f.o.b					Imports, c.i.f				
	Agri-cultural and other primary products	Wood industry products	Paper industry products	Metal, engineering industry products	Other goods	Raw materials and intermediate goods	Fuels and lubricants	Finished goods		Other goods
								Investment goods	Consumer goods	
1	2	3	4	5	6	7	8	9	10	
1981	2 036	6 852	17 127	14 858	19 435	39 156	5 115	8 877	8 015	106
1982	1 676	6 278	17 502	18 908	18 662	41 144	4 869	9 195	9 130	413
1983	1 723	6 944	19 327	20 211	21 487	44 757	5 006	10 860	10 572	333
1984	2 865	7 145	23 573	22 998	24 323	47 028	5 034	10 993	11 454	173
1985	2 678	6 728	25 030	24 412	25 179	50 944	5 502	11 675	12 967	432

1986\*

Jan.	274	490	1 855	2 201	1 973	4 867	474	1 039	1 080	6
Feb.	350	486	1 829	1 940	2 318	3 727	316	888	1 370	8
March	319	516	1 799	1 704	1 970	4 032	218	1 193	1 504	24
April	148	583	2 051	2 103	1 568	3 867	389	1 098	1 418	22
May	128	494	1 804	2 338	1 542	3 122	231	785	990	18
June	142	506	2 012	1 411	1 490	2 342	166	682	738	2
July	263	637	2 307	2 068	1 721	3 743	425	1 228	1 240	6
Aug.	236	546	2 072	1 820	1 803	3 567	421	1 050	1 421	25
Sept.	125	607	2 250	2 733	2 056	4 513	412	1 204	1 482	16

Jan.-Sept.

1985	2 210	4 973	19 185	18 159	18 750	37 522	3 762	8 405	9 616	410
1986*	1 986	4 863	17 979	18 319	16 441	33 782	3 051	9 166	11 243	127



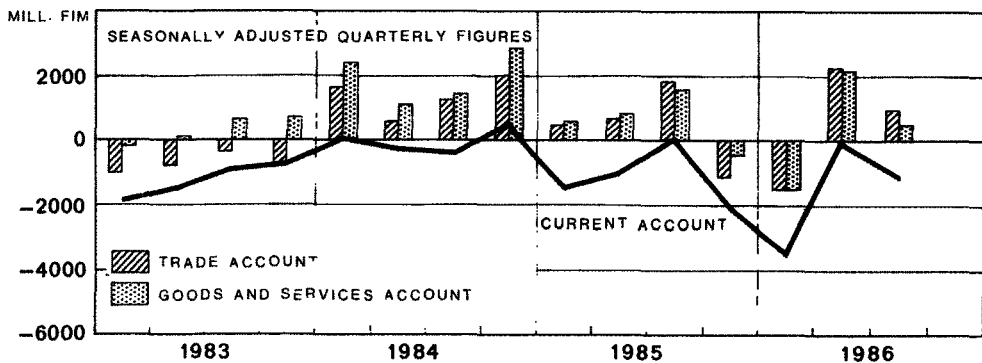
## FOREIGN TRADE BY COUNTRIES

Mill. FIM

Area and country	Exports, f.o.b.				Imports, c.i.f.			
	January–Sept.				January–Sept.			
	1985		1986*		1985		1986*	
	%	Mill. FIM	%	Mill. FIM	%	Mill. FIM	%	Mill. FIM
<b>OECD countries in Europe</b>	56.4	35 675	61.3	36 522	56.4	33 702	61.6	35 331
Austria	0.7	427	0.9	557	1.1	670	1.3	753
Belgium and Luxembourg	1.4	904	1.7	1 015	2.0	1 205	2.4	1 372
Denmark	3.9	2 457	4.0	2 381	2.5	1 505	2.8	1 626
France	3.9	2 481	4.4	2 639	3.4	2 037	4.2	2 387
Federal Republic of Germany	9.2	5 823	9.9	5 892	15.0	8 951	16.8	9 665
Italy	2.0	1 249	2.1	1 231	3.4	2 010	4.3	2 441
Netherlands	3.3	2 102	3.5	2 114	3.0	1 770	3.0	1 722
Norway	4.2	2 668	4.7	2 772	2.6	1 542	2.3	1 313
Portugal	0.3	198	0.3	155	0.8	462	0.9	519
Spain	0.8	508	1.0	622	1.0	569	1.1	609
Sweden	12.8	8 109	14.7	8 753	11.7	6 969	13.2	7 582
Switzerland	1.5	934	1.7	1 005	1.6	983	2.0	1 140
United Kingdom	10.9	6 867	10.8	6 443	7.6	4 540	6.6	3 759
Other	1.5	948	1.6	943	0.8	489	0.8	443
<b>OECD countries outside Europe</b>	10.5	6 636	9.4	5 624	11.4	6 821	12.3	7 071
Canada	1.2	778	1.1	683	0.8	453	0.5	293
Japan	1.6	1 006	1.6	952	5.3	3 154	6.7	3 842
United States	6.5	4 102	5.5	3 300	5.1	3 055	4.7	2 705
Other	1.2	750	1.2	689	0.3	159	0.4	231
<b>CMEA countries</b>	23.2	14 669	21.2	12 618	23.6	14 097	18.6	10 682
Czechoslovakia	0.3	200	0.3	204	0.5	277	0.5	294
German Democratic Republic	0.5	316	0.3	208	0.5	295	0.6	330
Poland	0.4	279	0.3	168	1.5	893	1.3	763
Soviet Union	21.3	13 455	19.5	11 603	20.5	12 268	15.6	8 943
Other	0.7	420	0.7	435	0.6	364	0.6	351
<b>Latin America</b>	1.8	1 157	1.5	908	2.6	1 570	2.6	1 468
Argentina	0.1	48	0.1	55	0.2	91	0.1	82
Brazil	0.2	106	0.2	126	0.9	510	0.7	427
Colombia	0.2	97	0.1	65	0.6	378	0.7	429
Other	1.4	906	1.1	662	1.0	592	0.9	530
<b>Other</b>	8.1	5 142	6.6	3 916	5.9	3 524	4.9	2 818
<b>GRAND TOTAL</b>	100.0	63 279	100.0	59 588	100.0	59 714	100.0	57 370
of which								
<b>EFTA countries</b>	19.3	12 239	22.1	13 188	17.2	10 246	18.9	10 863
<b>EEC countries</b>	36.7	23 220	38.7	23 084	39.2	23 412	42.6	24 425
<b>OECD countries</b>	66.9	42 311	70.7	42 146	67.9	40 523	73.9	42 401

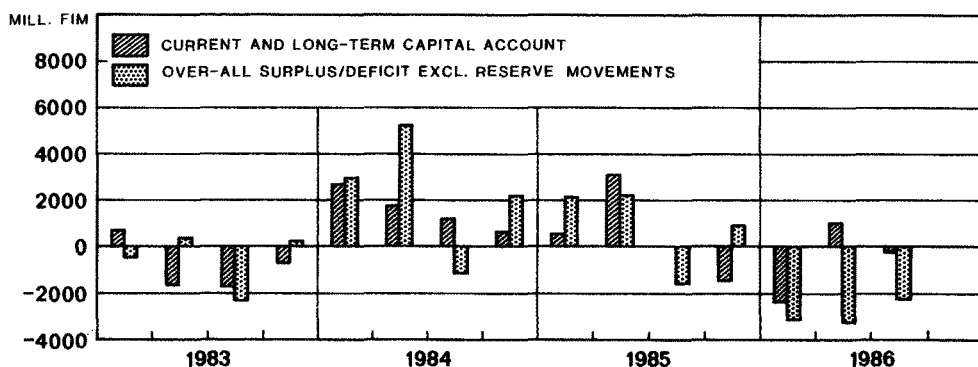
# BALANCE OF PAYMENTS

Period	Exports f.o.b.	Imports c.i.f.	Trade account (1-2)	Transport. net	Travel. net	Other services, net	Goods and services account (3 to 6)	Invest- ment income, net	Un- requited transfers, net	Other, net	Current account (7 to 10)
	1	2	3	4	5	6	7	8	9	10	11
1982	62 867	65 147	-2 280	+2 856	-277	+1 732	-2 031	-5 447	-643	+161	-3 898
1983	69 368	72 139	-2 771	+3 200	-748	+1 610	+1 291	-5 817	-797	+96	-5 227
1984	80 608	75 127	+5 480	+4 008	-1 211	-306	+7 971	-6 786	-1 050	-238	-103
1985*	83 769	81 870	+1 899	+3 677	-1 766	-859	+2 951	-6 259	-1 003	-390	-4 700
1983											
Oct.-Dec.	19 350	20 162	-812	+815	-272	+693	+424	-1 305	-204	-4	-1 089
1984											
Jan.-March	19 678	17 069	+2 609	+1 018	-370	-60	+3 197	-2 010	-284	-60	+843
Apr.-June	19 700	18 852	+849	+1 009	-326	-174	+1 357	-1 225	-202	-39	-108
July-Sept.	19 395	19 330	+65	+1 144	-123	-265	+820	-1 593	-279	-46	-1 098
Oct.-Dec.	21 834	19 877	+1 958	+837	-392	+194	+2 597	-1 958	-285	-93	+261
1985*											
Jan.-March	20 057	18 937	+1 120	+872	-517	-288	+1 187	-1 809	-322	-145	-1 088
Apr.-June	22 436	21 407	+1 030	+993	-481	-370	+1 172	-1 679	-230	-71	-808
July-Sept.	20 612	19 652	+961	+907	-295	-261	+1 312	-1 283	-180	-75	-226
Oct.-Dec.	20 663	21 875	-1 211	+905	-473	+60	-719	-1 489	-271	-99	-2 578
1986*											
Jan.-March	19 981	20 875	-894	+734	-599	-179	-939	-1 610	-499	-131	-3 179
Apr.-June	18 285	15 995	+2 290	+656	-647	-141	+2 158	-1 954	-332	-98	-226
July-Sept.	21 198	20 870	+328	+696	-416	-192	+415	-1 424	-298	-62	-1 369



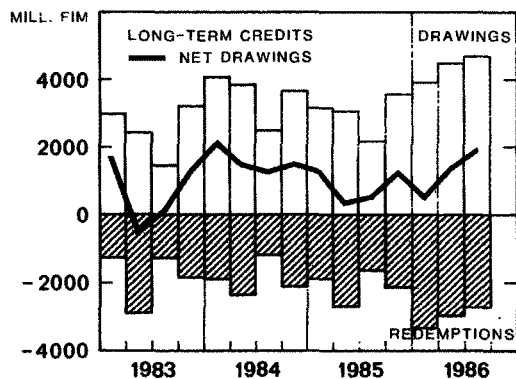
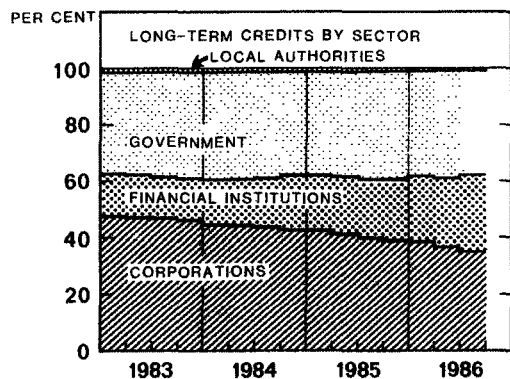
Drawings of long-term loans	Amortizations of long-term loans	Long-term export credits, net	Miscellaneous long-term capital items, net	Long-term capital account (12 to 15)	Current and long-term capital account (11 + 16)	Prepayments and liabilities related to imports	Prepayments and receivables related to exports	Short-term capital of authorized banks, net	Miscellaneous, short-term capital items, incl. errors and omissions	Over-all surplus deficit excl. reserve movements (17 to 21)	Bank of Finland foreign exchange reserves
12	13	14	15	16	17	18	19	20	21	22	23
+10 213	-4 721	-1 239	-3 642	+611	-3 287	-914	+771	+1 493	+1 811	-126	+126
+10 112	-7 273	+423	-1 388	+1 874	-3 353	+3 273	-3 380	+1 266	+32	-2 162	+2 162
+14 087	-7 538	-1 682	+1 428	+6 295	+6 192	+760	+2 995	+2 086	-2 758	+9 275	-9 275
+11 870	-8 255	+1 339	+1 840	+6 794	+2 094	+440	-2 062	+5 267	-1 994	+3 744	-3 744
+3 213	-1 838	-92	-873	+410	-679	+930	-2 029	+2 380	-366	+236	-236
+4 075	-1 887	-235	-47	+1 906	+2 749	-1 049	+1 283	+2 443	-2 441	+2 986	-2 986
+3 858	-2 351	+89	+276	+1 872	+1 764	+1 083	+121	+2 531	-276	+5 222	-5 222
+2 495	-1 185	-603	+1 475	+2 182	+1 084	+426	-128	-2 186	-336	-1 140	+1 140
+3 659	-2 115	-933	-276	+335	+596	+300	+1 718	-702	+295	+2 208	-2 208
+3 173	-1 855	+336	-31	+1 623	+535	+533	-1 058	+2 208	-65	+2 153	-2 153
+3 023	-2 632	+354	+3 139	+3 884	+3 076	+836	-1 714	+1 911	-1 881	+2 228	-2 228
+2 139	-1 557	+263	-626	+219	-7	-74	-427	-1 400	+342	-1 566	+1 566
+3 535	-2 211	+386	-642	+1 068	-1 510	-855	+1 137	+2 548	-390	+930	-930
+3 954	-3 377	+245	-8	+814	-2 365	+1 783	-564	-3 085	+1 069	-3 162	+3 162
+4 434	-2 990	-97	-66	+1 281	+1 055	-3 940	-657	-2 589	+2 895	-3 236	+3 236
+4 701	-2 745	+191	-961	+1 186	-183	+914	-1 167	+904	-2 681	-2 213	+2 213

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



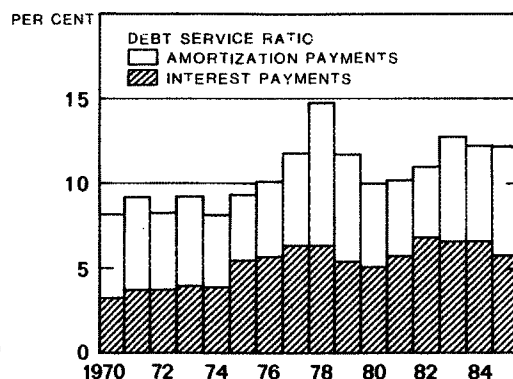
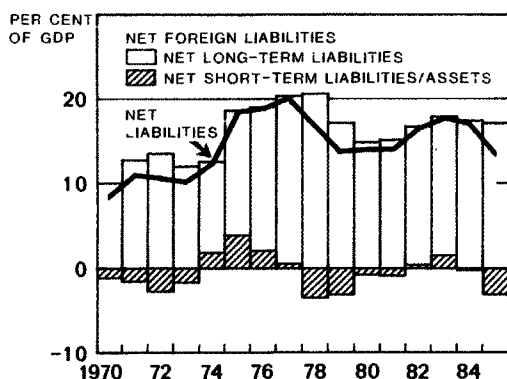
# FINLAND'S FOREIGN ASSETS AND LIABILITIES

End of year and month	Long-term assets				Long-term liabilities						Net long-term liabilities (10-4)
	Export credits	Direct investment	Other	Total (1 to 3)	Financial loans	Import credits	Direct investment	Portfolio investment	Other	Total (5 to 9)	
	1	2	3	4	5	6	7	8	9	10	
1982	6 628	4 626	3 796	15 050	47 547	4 608	2 223	..	752	55 130	40 080
1983	6 612	6 166	3 932	16 710	53 118	4 472	2 317	848	763	61 518	44 808
1984	8 920	8 689	1 915	19 524	63 958	3 865	2 905	2 013	805	73 546	54 022
1985*	6 538	10 516	2 774	19 828	63 197	2 892	3 274	6 313	1 065	76 741	56 913
1983											
Dec.	6 612	6 166	3 932	16 710	53 118	4 472	2 317	848	763	61 518	44 808
1984											
March	6 658	6 687	3 539	16 884	54 014	4 225	2 354	987	731	62 311	45 427
June	6 827	7 435	3 230	17 492	57 198	3 937	2 393	1 640	729	65 897	48 405
Sept.	7 767	7 834	1 839	17 440	60 497	3 951	2 410	1 957	834	69 649	52 209
Dec.	8 920	8 689	1 915	19 524	63 958	3 865	2 905	2 013	805	73 546	54 022
1985*											
March	8 504	9 408	2 071	19 983	64 521	3 939	2 899	2 900	778	75 037	55 054
June	8 034	9 824	2 195	20 053	64 822	3 602	2 763	6 317	873	78 377	58 324
Sept.	7 200	10 290	2 179	19 669	63 388	3 064	2 809	6 210	867	76 338	56 669
Dec.	6 538	10 516	2 774	19 828	63 197	2 892	3 274	6 313	1 065	76 741	56 913
1986*											
March	6 098	10 686	2 712	19 496	63 570	2 803	3 356	6 407	820	76 956	57 460
June	6 140	11 401	2 784	20 325	66 600	2 546	3 413	7 117	832	80 508	60 183
Sept.	5 769	11 873	3 119	20 761	68 282	2 487	3 669	6 911	906	82 255	61 494





Short-term assets				Short-term liabilities				Net short-term liabilities (19-15)	Net liabilities (11+20)	Debt service, flow	Of which amortization payments, flow
Bank of Finland	Authorized banks and other foreign exchange holders	Corporate sector	Total (12 to 14)	Bank of Finland	Authorized banks and other foreign exchange holders	Corporate sector	Total (16 to 18)				
12	13	14	15	16	17	18	19	20	21	22	23
12 737	22 899	13 858	49 494	5 348	31 331	13 782	50 461	967	41 047	9 069	3 464
11 842	29 263	15 915	57 020	5 705	39 443	16 181	61 328	4 308	49 116	11 591	5 621
22 912	43 319	12 804	79 035	4 562	55 695	17 988	78 245	-790	53 232	12 877	5 896
25 183	38 760	18 155	82 097	4 070	51 374	15 999	71 443	-10 654	46 259	13 459	7 024
11 842	29 263	15 915	57 020	5 705	39 443	16 181	61 328	4 308	49 116	2 726	1 387
14 740	25 724	15 374	55 838	3 657	37 966	15 571	57 193	1 355	46 782	3 523	1 452
20 705	31 935	14 978	67 618	3 775	47 084	16 836	67 694	76	48 481	3 260	1 987
21 064	34 621	14 727	70 411	4 815	47 882	17 431	70 128	-283	51 926	2 448	821
22 912	43 319	12 804	79 035	4 562	55 695	17 988	78 245	-790	53 232	3 646	1 636
24 785	44 984	15 869	85 638	4 535	59 386	18 362	82 283	-3 356	51 698	3 639	1 802
26 208	46 661	18 635	91 504	3 729	62 896	18 727	85 352	-6 151	52 173	3 780	2 029
24 770	44 927	18 183	87 880	4 240	59 370	17 808	81 418	-6 462	50 207	2 793	1 488
25 183	38 760	18 155	82 097	4 070	51 374	15 999	71 443	-10 654	46 259	3 247	1 705
21 647	40 409	18 037	80 093	3 659	50 424	17 288	71 371	-8 722	48 738	5 085	3 424
18 470	45 222	18 213	81 905	3 499	52 647	12 898	69 044	-12 861	47 322	5 279	3 292
16 245	45 952	19 411	81 609	3 565	54 282	13 827	71 673	-9 935	51 559	4 931	3 462



# PRICE INDICES

Period	Wholesale price index 1949 = 100	Basic price index for domestic supply 1980 = 100						Building costs 1980 = 100		
		Total	Origin		Purpose			Total	Wages in building trade	Building materials
			Domestic goods	Imported goods	Raw materials	Consumer goods	Investment goods			
		1	2	3	4	5	6	7	8	9
1984	1 261	134.5	136.0	130.0	132.6	137.5	135.8	136.5	133.7	136.1
1985	1 324	140.5	143.1	132.8	137.5	145.8	142.4	144.3	144.4	142.8
1986										
March	1 279	135.0	141.6	115.2	125.5	146.7	147.0	148.8	151.0	146.7
April	1 265	133.6	140.5	112.5	123.0	146.2	147.3	149.3	151.5	147.3
May	1 257	132.6	139.3	112.1	121.3	145.8	147.2	149.8	151.6	147.8
June	1 256	132.4	139.3	111.2	120.9	145.5	147.7	150.8	155.6	148.2
July	1 249	131.7	139.2	108.8	119.4	145.1	148.9	151.2	156.2	148.4
Aug.	1 246	130.9	137.9	109.6	118.3	144.3	148.7	151.5	156.2	149.0
Sept.	1 248	131.3	138.0	111.0	118.7	144.7	149.2	151.8	156.2	149.5
Oct.	1 250	131.5	138.5	110.3	119.0	145.0	149.2	152.0	156.2	149.6

Period	Consumer prices 1981 = 100									
	Total	Food	Beverages and tobacco	Clothing and footwear	Rent, heating and lighting	Household goods and services	Health and medical services	Transport and communication	Education and recreation	Other goods and services
	1	2	3	4	5	6	7	8	9	10
1984	127.1	129.1	132.5	119.5	124.5	123.0	145.2	125.4	126.4	130.8
1985	134.6	139.1	140.3	126.1	130.9	129.7	155.7	130.4	132.5	140.4
1986										
March	138.1	143.2	144.7	130.8	133.6	133.6	162.6	129.9	136.2	147.4
April	138.6	144.2	144.9	131.3	133.6	134.2	162.8	130.4	137.6	147.6
May	139.1	143.9	145.1	131.8	135.7	134.8	162.3	129.2	139.4	148.3
June	139.8	144.9	147.4	131.6	135.7	135.1	162.9	130.2	140.1	148.9
July	139.9	145.7	147.4	130.1	135.7	135.1	163.0	130.4	140.2	149.0
Aug.	140.2	144.8	147.4	131.4	136.3	135.3	164.4	130.2	141.2	150.2
Sept.	140.2	144.9	147.4	133.0	134.2	136.0	164.4	131.4	142.3	150.3
Oct.	140.7	145.4	147.6	134.3	134.3	136.5	167.1	131.6	142.8	150.7

## WAGES

Index of wage and salary earnings 1980 = 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	Industry	Construction							
1	2	3	4	5	6	7	8	9	10	
1983	132.1	137.3	138.2	138.8	137.3	140.0	137.3	138.4	136.9	137.8
1984	148.5	149.9	152.8	152.8	147.1	154.7	150.5	151.4	149.7	150.8
1985*	160.6	161.2	168.8	165.0	159.1	166.7	163.5	164.3	162.2	163.5
1985*										
July-Sept.	161.9	162.0	168.2	166.6	160.3	167.9	164.7	165.9	162.6	164.7
Oct.-Dec.	166.8	163.1	174.0	167.1	160.7	168.3	167.1	167.1	165.3	166.5
1986*										
Jan.-March	177.2	166.7	175.5	173.3	166.7	175.2	169.5	171.5	167.9	170.2
Apr.-June	175.0	172.1	174.5	177.4	170.3	178.9	174.1	176.0	171.9	174.5
July-Sept.	176.0	171.3	182.5	178.2	170.5	179.9	175.4	177.0	173.2	175.6

## PRODUCTION

Volume indices of production 1980 = 100

Period	Gross domestic product	Industrial production	Agriculture	Forestry	Construction of buildings	Land and waterway construction	Transport and communication	Commerce	Public sector services	Others
1984										
Apr.-June	109	114	83	89	85	104	110	108	114	121
July-Sept.	109	102	198	45	114	105	108	110	115	119
Oct.-Dec.	121	122	92	117	140	108	121	119	116	127
1985*										
Jan.-March	107	112	74	102	81	94	106	100	117	117
Apr.-June	113	121	78	109	85	113	111	112	117	126
July-Sept.	112	106	178	37	109	114	111	113	118	124
Oct.-Dec.	123	124	85	110	140	116	125	124	120	132
1986*										
Jan.-March	108	108	72	96	80	97	110	103	120	122
Apr.-June	114	121	78	90	71	117	113	118	118	131

# PRODUCTION

Index of industrial production 1980 = 100

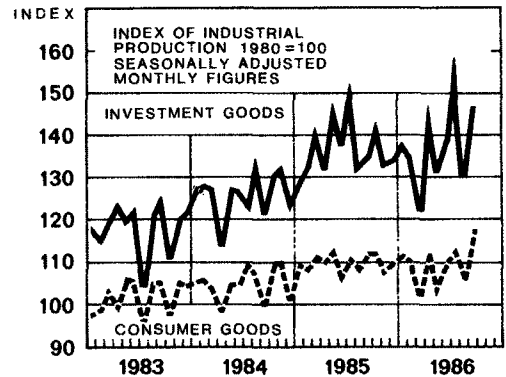
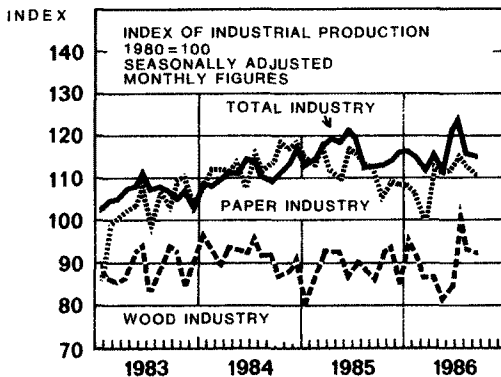
Period	Total	Investment goods	Consumer goods	Other producer goods	Special indices of manufacturing						Total adjusted for seasonal variations
					Food industry	Wood industry	Paper industry	Chemical industries	Non-metallic mineral industry	Metal industry	
	1	2	3	4	5	6	7	8	9	10	11
1983	107.1	119.0	102.6	107.1	108.9	89.9	103.5	106.2	115.0	114.5	107.1
1984*	111.8	126.8	105.6	111.9	109.3	92.4	114.3	111.5	108.4	120.0	112.1
1985*	116.1	137.8	110.3	114.7	111.3	89.4	113.1	115.1	109.7	129.9	116.5

1985\*

Aug.	114.8	125.9	110.0	114.7	114.8	83.1	118.8	121.5	128.0	121.9	112.8
Sept.	118.8	137.4	113.4	117.7	109.5	96.5	112.0	121.0	130.4	134.1	113.1
Oct.	129.7	157.4	126.3	126.1	138.6	109.6	112.2	127.4	135.4	149.9	113.5
Nov.	124.5	148.9	122.2	120.9	130.4	96.7	116.8	117.1	118.6	142.5	114.5
Dec.	108.0	130.9	104.2	105.4	104.7	63.2	102.8	108.3	95.9	123.6	116.6

1986\*

Jan.	122.4	143.3	119.8	119.7	106.8	93.6	111.2	121.9	103.0	137.5	116.9
Feb.	110.5	132.8	108.0	107.5	93.1	82.9	102.2	111.0	83.3	123.9	115.4
March	107.5	127.0	104.0	105.5	91.3	83.6	95.2	121.8	81.6	121.3	112.4
April	124.7	157.7	117.6	121.9	114.4	113.5	114.7	133.4	98.5	148.9	116.5
May	118.2	151.5	109.6	115.1	104.7	100.1	107.4	121.5	98.5	147.1	112.6
June	117.8	151.5	104.1	118.1	105.1	97.4	101.5	113.9	102.9	141.1	121.2
July	86.7	71.3	75.3	94.6	103.4	47.2	126.8	83.7	73.4	73.2	124.8
Aug.	114.4	123.0	108.6	115.3	107.0	83.0	117.0	123.3	121.1	121.1	116.0



# LABOUR – TIMBER FELLINGS – INTERNAL TRADE

Period	Population of working age, 1 000 persons	Total labour force, 1 000 persons	Employed, 1 000 persons	Un-employed, 1 000 persons	Unemployment, % of total labour force	Commercial timber fellings, 1 000 solid cu. m	Retail sales volume index 1980 = 100	Wholesale volume index 1980 = 100
	1	2	3	4	5	6	7	8
1984	3 700	2 572	2 414	159	6.2	41 288	109	109
1985*	3 710	2 600	2 437	163	6.3	43 349	114	110
1985*								
Aug.	3 712	2 631	2 481	150	5.7	1 212	117	112
Sept.	3 714	2 563	2 405	158	6.2	1 951	111	113
Oct.	3 714	2 556	2 396	160	6.3	2 962	118	124
Nov.	3 714	2 580	2 409	171	6.6	3 768	115	119
Dec.	3 714	2 563	2 406	157	6.1	4 729	134	119
1986*								
Jan.	3 714	2 553	2 360	193	7.6	4 232	110	103
Feb.	3 715	2 540	2 346	195	7.7	4 596	100	102
March	3 716	2 551	2 365	186	7.3	4 709	105	109
April	3 716	2 551	2 365	186	7.3	4 534	118	123
May	3 718	2 609	2 438	170	6.5	3 292	122	120
June	3 717	2 788	2 598	190	6.8	2 472	119	111
July	3 717	2 790	2 600	190	6.8	1 124	126	104
Aug.	3 718	2 647	2 481	167	6.3	1 194	116	114
Sept.	3 715	2 600	2 428	171	6.6	2 143	..	..

## CONSTRUCTION OF BUILDINGS

Period	Building permits granted					Buildings completed					Building-works under construction
	Total	Residential buildings	Farm buildings	Industrial and business buildings	Public buildings	Total	Residential buildings	Farm buildings	Industrial and business buildings	Public buildings	
Million cubic metres											
	1	2	3	4	5	6	7	8	9	10	11
1984	49.69	19.93	5.65	17.45	3.14	44.24	17.65	5.13	15.76	2.83	52.13
1985*	48.17	18.17	6.70	16.53	3.41	44.74	17.40	4.94	15.97	3.35	49.64
1985*											
Jan.-March	9.19	3.44	1.10	3.20	0.86	8.62	3.85	0.56	2.92	0.73	47.81
Apr.-June	17.13	7.27	3.09	4.80	0.75	10.18	4.08	0.72	3.57	1.05	53.07
July-Sept.	12.16	4.48	1.61	4.21	0.92	10.10	3.80	1.77	3.04	0.75	56.42
Oct.-Dec.	9.69	2.98	0.90	4.32	0.88	15.84	5.67	1.89	6.44	0.82	49.64
1986*											
Jan.-March	9.24	2.96	1.19	4.06	0.50	8.15	3.53	0.56	2.89	0.67	46.75
Apr.-June	16.42	6.67	2.93	4.68	0.89	4.74	2.05	0.65	1.37	0.36	55.87

# EXPLANATIONS RELATING TO THE STATISTICAL SECTION

## BANK OF FINLAND

Page 4. *Public sector*: Claims = Government promissory notes + Bonds + Total coinage + Other claims on the public sector. Other liabilities = Cheque accounts + Counter cyclical reserves - Counter-cyclical deposits - Capital import deposits + Other liabilities to the public sector. Certificates of deposit are interest bearing, freely transferable term liabilities of the Bank of Finland sold to the government. Their maturities range from one week to one year. As from November 1, 1983, certificates of deposit were replaced by the government deposit account.

Page 5. *Domestic financial sector*: Other liabilities, net = Capital import deposits + Other liabilities to financial institutions - Bonds - Other claims on financial institutions.

*Corporate sector*: Permanent special financing schemes = Foreign bills + New export bills + Financing of suppliers' credits. Liabilities, net = Deposits for investment and ship purchase + Counter-cyclical withholdings + Capital import deposits + Import levy deposits + Export deposits + Other liabilities to corporations - Bonds - Other claims on corporations.

## MONETARY POLICY INDICATORS

Page 6. All the figures except the average lending rate of the commercial banks are mean values of daily figures for the month or year in question. The average lending rate of the commercial banks is the mean value of the end of the month lending rates weighted by credit outstanding. The annual figure for the average lending rate is an unweighted average of the weighted average monthly rates.

Gross central bank debt of the deposit banks = The commercial banks' and Postipankki's cheque account overdrafts + Call money credit. Prior to January 1984 the average monthly amount of cheque account overdrafts at base rate was restricted by the quota granted to each bank. The banks could obtain central bank credit in excess of the quota by borrowing on the Bank of Finland's call money market. As from January 1984, the quotas were abolished and the only source of central bank debt is now the call money market. There is no longer any absolute ceiling on call money credit. However, banks' borrowing is monitored and a bank whose borrowing exceeds a certain limit comes under the special surveillance of the central bank. The interest charged on call money credit, the call money rate, is adjusted by the central bank in line with monetary policy objectives at the time.

Net central bank debt of the deposit banks = Gross central bank debt of the deposit banks - The commercial banks' and Postipankki's deposits on the call money market - All deposit banks' cash reserve deposits at the Bank of Finland.

Cash reserve deposits of the deposit banks equal the total amount of cash reserve deposits at the Bank of Finland made by the deposit banks under the Cash Reserve Agreement of March 8, 1983. The deposit banks consist of the commercial banks, co-operative banks, savings banks and Postipankki.

The cash reserve requirement is set each month by the Bank of Finland as the percentage of each bank's stock of deposits which must be deposited at the central bank. Deposits are to be made one month after the close of the month to which the coefficient applies.

Call money credit extended by the Bank of Finland = Demand for call money by the deposit banks - Supply of call money by the deposit banks.

As from the beginning of 1986, the call money interest rate was differentiated into two separate rates of interest, the rate on call money advances and a slightly lower one, the rate on call money deposits. As from the beginning of 1986, the figures on page 6 and the chart illustrating the call money rate have been prepared on the basis of the rate on call money advances.

Average cost of gross central bank debt = Costs of borrowing paid to the Bank of Finland by the deposit banks, as a percentage of their gross central bank debt, per annum.

## FORWARD EXCHANGE MARKETS IN FINLAND

Page 7. The figures for columns 1-6 are calculated by the Bank of Finland on the basis of monthly reports from the banks on their outstanding forward exchange positions at the end of each month. The figures for columns 7-9 are based on monthly averages of daily representative quotations, as reported by the banks to the Bank of Finland. The banks' foreign currency positions shown in the chart at the bottom of page 7 are monthly averages of daily spot and forward positions vis-à-vis the markka as reported by the commercial banks to the Bank of Finland. The spot position includes all foreign currency-denominated assets and liabilities of the banks, excluding their outstanding forward contracts.

## FOREIGN EXCHANGE RATES

Pages 8-9. *Exchange rates* are annual and monthly averages of the Bank of Finland's daily quotations. *Currency index* is annual and monthly average of daily index numbers. The chart at the bottom of page 8 shows the banks' forward selling rates for the US dollar as deviations from the spot rate.

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

Figures for deposits and advances are supplied by the Central Statistical Office.

Page 10. *Deposits by the public*. The central government and the financial institutions are mainly excluded from the public. From 1974 deposits include domestic deposits denominated in foreign currency.

Page 11. *Advances to the public*. The central government and the financial institutions are not included in the public.

Postipankki's advances do not include loans granted by the State Investment Fund (INRA). Domestic credits in foreign currency are mainly granted by the commercial banks and the rest by Postipankki.

*Money Supply M<sub>1</sub>* = Finnish notes and coins in circulation - Finnish notes and coins held by the banks - Demand deposits held by the public (incl. Demand deposits at the Bank of Finland). Quasi-Money = Time deposits held by the public (incl. Time deposits at the Bank of Finland).

Note: Domestic deposits in foreign currency included in money supply since 1974. In the money supply the public includes non-monetary financial institutions.

## STATE FINANCES

Page 12. Official figures computed by the Economics Department of the Ministry of Finance. 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.

## FOREIGN TRADE

Pages 13-15. Figures supplied by the Board of Customs. *Indices* (p. 13): The volume indices are calculated according to the Paasche formula and the unit value indices according to the Laspeyres formula. *Terms of trade*: the ratio of export indices to import indices. *Foreign trade by countries*: (p. 15): from January 1980 imports by countries of origin, exports by countries of consignment.

## BALANCE OF PAYMENTS

Pages 16-17. Figures are calculated by the Bank of Finland.

Columns 1-7. The figures for the trade and goods and services accounts are in accordance with the System of National Accounts.

Columns 12-13. Long-term loans comprise financial loans and import and leasing credits.

Column 15. Miscellaneous long-term capital items, net = direct investment, net + portfolio investment by foreigners + financial loans and development credits to abroad + Finland's subscriptions to international financial institutions, net.

Column 23. Changes in the foreign exchange reserves of the Bank of Finland exclude changes in the markka value of the reserves caused by changes in exchange rates.

## FOREIGN ASSETS AND LIABILITIES

Pages 18-19. Figures calculated by the Bank of Finland.

Long-term assets: Other = financial loans + development credits + Finland's subscriptions to international financial institutions. Long-term liabilities: Portfolio investment = the outstanding amount of share issues by Finnish companies on foreign stock exchanges and securities sold to foreign buyers through the Helsinki Stock Exchange. Other = Leasing credits + subscriptions to international financial institutions paid in the form of bonds.

Column 22. Debt service = Net investment income of short-term and long-term assets and liabilities + net amortisation payment of long-term foreign assets and liabilities, excl. amortisation payments of the Bank of Finland's reserve and oil credits.

Columns 22 and 23 during the year and the quarter.

Chart Debt service ratio: Debt service as a per cent of current account earnings. Debt service does not include amortisation of the Bank of Finland's reserve and oil credits.

## PRICE INDICES

Page 20. All indices calculated by the Central Statistical Office.

## WAGES - PRODUCTION

Pages 21-22. Figures supplied by the Central Statistical Office.

Page 22. *Index of industrial production* calculated by the Central Statistical Office. The grouping, by branches of industry is in accordance with the Standard Industrial Classification (SIC) which is a version of the 1968 edition of the ISIC. The SIC facilitates international comparisons between Finnish statistics and corresponding data from countries which use the ISIC. The seasonally adjusted series is calculated by the Bank of Finland 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.

## LABOUR - TIMBER FELLINGS - INTERNAL TRADE - CONSTRUCTION OF BUILDINGS

Page 23. *Labour* figures supplied by the Central Statistical Office. *Commercial timber fellings* compiled by the Forest Research Institute, *Retailers' and Wholesalers' volume indices* supplied by the Central Statistical Office. *Construction of buildings* figures calculated by the Central Statistical Office.

Owing to rounding, the figures in statistical tables do not necessarily add up to the totals shown.

SYMBOLS USED: \* Preliminary, r Revised, 0 Less than half the final digit shown, Logically impossible, . . . Not available, - Nil, S affected by strike, - Break in series.

# SOME PARTICULARS ABOUT FINLAND

## FORM OF GOVERNMENT

From 1155 to 1809 Finland formed a part of the kingdom of Sweden. 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 term, January 27, 1982, to March 1, 1988, is Mauno Koivisto.

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 1983 is as follows: Social Democratic Party of Finland 57, National Coalition Party 44, Centre Party 38, Democratic League of the People of Finland 27, Finnish Rural Party 17, Swedish People's Party 11, Christian League of Finland 3, The Greens 2 and Finnish People's Constitutional Party 1.

Finland is divided into 461 self-governing municipalities. Members of the municipal council are elected by universal suffrage for a period of 4 years.

## 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, OECD 1969, IDB 1977 and AfDB 1982.

## LAND

THE AREA is 338 000 square kilometres (Great Britain's area is 244 000 sq. km and Italy's area 301 000 sq. km). Of the total, inland waters form 9.4%. Of the land area (1980) 2.5 mill. ha (8.2%) are cultivated and 19.7 mill. ha (64.5%) are covered by forests.

OWNERSHIP OF LAND (1979). The total land area was distributed among different classes of owners approximately as follows: private 58.7%, State 31.4%, joint stock companies etc. 7.4%, municipalities and parishes 2.5%.

## POPULATION

NUMBER OF INHABITANTS (1984): 4.9 million. Sweden 8.3, Switzerland 6.5, Denmark 5.1, and Norway 4.1 million.

DENSITY OF POPULATION (1984): in South Finland 47.7, in East and Central Finland 14.3, in North Finland 4.2 and in the whole country an average of 16.1 inhabitants to the square kilometre.

DISTRIBUTION BY AREA (1984): 40% of the population inhabit the rural areas, 60% towns. The largest towns are: Helsinki (Helsingfors), the capital, 484 263 inhabitants, Tampere (Tammerfors) 168 150, Turku (Åbo) 162 282.

EMPLOYMENT (1985): Agriculture and forestry 11%, industry and construction 32%, commerce 15%, transport and communication 8%, financing, insurance, real estate and business services 6%, community and personal services 28%.

LANGUAGE (1984): Finnish speaking 93.6%, Swedish speaking 6.1%, others 0.3%.

EDUCATION (1986): Practically all persons over 15 years of age are literate. There are 8 universities (the oldest founded in 1640) and 12 colleges of university standard.

CHANGE OF POPULATION (1984): births 13.3 ‰, deaths 9.2 ‰, change + 5.0 ‰, net immigration + 0.8 ‰. Deaths in France 9.8 ‰ and Great Britain 11.4 ‰.

## TRADE AND TRANSPORT

NATIONAL INCOME (1985), in million FIM: Gross domestic product at factor cost by industrial origin: agriculture and fishing 13 190 (4%), forestry 10 977 (4%), manufacturing 85 794 (29%), construction 23 138 (8%), trade, restaurants and hotels 33 163 (11%), transport and communication 23 672 (8%), banking and insurance 12 973 (4%), ownership of dwellings 19 097 (6%), other services 74 707 (25%), total 296 711. Index of real domestic product 114 (1980 = 100).

FOREST RESOURCES (1983). The growing stock comprised of 1 660 million m<sup>3</sup> (solid volume with bark; of which 45% was pine and 37% spruce the remaining 18% being broad-leaved trees chiefly birch. Of the growing stock 666 million m<sup>3</sup> was up to the standard required for logs, 51% of these being pine. The annual growth was 68 million m<sup>3</sup> and the total drain calculated on the basis of roundwood consumption was 49.4 million m<sup>3</sup>.

AGRICULTURE (1983). Cultivated land 2.4 million hectares. Number of holdings 208 229 of which 146 465 are of more than 5 ha. Measure of self-sufficiency in bread cereals 93%.

INDUSTRY (1983). Gross value of industrial production FIM 222 602 mill., number of workers 398 066, salaried employees 146 503, motive power 8.3 mill. kW. Index of industrial production 107.1 for 1983 (1980 = 100).

STATE RAILWAYS (Dec. 31, 1985): Length 5 979 km.

MERCHANT FLEET (Sept. 30, 1986): Passenger vessels 164 (294 305 gross reg. tons), tankers 33 (604 653 gross reg. tons), dry cargo vessels 125 (479 391 gross reg. tons), other vessels 105 (21 440 gross reg. tons), total 427 (1 399 789 gross reg. tons).

AUTOMOBILES (Dec. 31, 1985): Passenger cars 1 546 094, lorries and vans 179 637, buses 9 017, other automobiles 11 867, total 1 746 615.

FINNISH AIRLINES (Feb. 28, 1986). Finnair has in use 1 DC-8-62, 3 DC-9-10, 5 DC-9-41, 12 DC-9-51, 3 DC-9 Super 82, 3 DC-10-30, 1 DC-10-30 ER and 3 Fokker F-27 Friendship MK. The company has scheduled flights to 34 foreign and 21 domestic destinations.

## 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 markka (plural: markkaa), which is divided into 100 penniä (singular: penni). The abbreviation used for the markka is FIM. The last par value of the markka was set on Oct. 12, 1967 and was 0.21159 grams of fine gold per markka (equivalent, at the time, to 4.20 markkaa per U.S. dollar). Since Nov. 1, 1977 the external value of the markka has been officially expressed in terms of a currency index. This index is tradeweighted and as from Jan. 1, 1984 indicates the average change in the convertible currencies which are important in Finnish foreign trade. The present currency weights are SEK 20.2, DEM 19.2, GBP 14.4, USD 9.3, other currencies 36.9. The permissible range of fluctuation is about 2.25 per cent on either side of the theoretical arithmetic mean. The fluctuation limits are 106.0 and 101.3.

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, 1985). There are two big and eight small commercial banks with in all 967 offices, 254 savings banks, 370 co-operative banks, six mortgage banks, Postipankki and three development credit institutions. The co-operative stores accept deposits from their members. The Social Insurance Institution and 48 private insurance companies also grant credits.

RATES OF INTEREST (May 19, 1986). The Bank of Finland's base rate is 7%. The interest rates for domestic lending other than bank financing by the Bank of Finland vary between 4½% and 9½%. Other credit institutions: time deposits 2½%, 6 month deposits 4%, 12 month deposits 5½%, 24 month deposits 7%.

# PRICE FORMATION IN THE FINNISH MANUFACTURING INDUSTRY

by **Tuomas Sukselainen**<sup>1</sup>, Lic.Pol.Sc.,  
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## INTRODUCTION

This article is based on a more comprehensive study investigating the main features of price formation in the Finnish manufacturing industry and its major branches on the basis of quarterly data from the years 1969 - 1981<sup>2</sup>. We first discuss some theoretical aspects of price formation by reference to recent literature so as to provide background for the empirical findings reported later. Second, the changes in export and producer prices in various branches and in the whole manufacturing industry are briefly described. Third, we take up the question of the structure of competition facing the Finnish manufacturing industry. The main part of the article then describes in general terms some central results of the econometric analysis of industrial price formation and the differences in pricing behaviour between various branches.

The main focus in this article is on the relative importance of competitors' prices and domestic production costs for short-term pricing behaviour. In addition, attention is paid to the way in which export and producer prices react to changes in these two factors and to fluctuations in demand in the course of time, i.e. to the degree of flexibility of prices in relation to external shocks. Price behaviour in the manufacturing sector, which is highly exposed to foreign competition, is in a key position, e.g. when conclusions are made on the international transmission of inflationary impulses (including exchange rate changes) and on the processes determining changes in the com-

petitive conditions and performance of the industry. Knowledge of the nature of pricing behaviour is also important for the planning of economic policies, e.g. when considering measures to shelter the country from external inflationary shocks or to enhance the competitiveness of the open sector of the economy.

## SOME THEORETICAL CONSIDERATIONS

In the traditional, so-called Walrasian theory of a competitive firm, prices are not set by the firms themselves. Rather, firms have to follow "a market price" determined before the actual transactions take place by the invisible forces of supply and demand. This view implies an instantaneous adjustment of product prices to any demand or supply shocks. It was noted fairly early on, however, that this did not seem to be the case in practice as firms appeared to keep their prices unchanged for even quite lengthy periods.

There has been fairly extensive research on price formation since the early 1970s. Criticism of the traditional model of a world of competition and frictionless price adjustment has increased and led to an intensive search for a firmer micro-economic basis to apply to a world characterized by monopolistic competition, uncertainty, incomplete substitutability of competing products and general market disequilibrium. For econometric research, this new approach has provided a sounder theoretical basis than the ad hoc approaches so often applied earlier. A theoretical framework based on rational profit maximization but including the characteristics mentioned above leads to different theoretical expectations concerning pricing in the short- and long run and between different types of firms and branches.

<sup>1</sup> The author is on leave of absence from his position as the Head of the International Economics Office of the Bank of Finland's Economics Department

<sup>2</sup> The complete report on the research project was published by the Bank of Finland in its B-series (B:42) in 1986.



Even if complete certainty prevails it is perhaps not optimal for a monopolistic enterprise to strive directly for the ultimate target price determined by the equality of marginal cost and marginal return because changing prices may in itself involve costs and the firm may be able to adjust its inventories, order stock or production level at less cost than the price it charges for its products. Later in this article we make some observations concerning the interaction of price adjustment and the adjustment of the volume of production or exports.

If uncertainty is built into the theoretical model framework the decision problem the firm faces will be further complicated. Uncertainties will most likely be attached to demand and cost factors as well as to competitors' reactions. When open economies are studied, there is further reason to believe in the importance of uncertainty for price decisions. The presence of various trading nations, institutions and cultures *per se* increases uncertainties. Furthermore, exchange rates produce a new element of uncertainty, especially under the present international monetary system. Owing to different information stocks, firms can have monopolistic power in the markets in the short-term. Accordingly, a dispersion of prices will prevail at any specific moment, even in rather narrow product groups. However, prices gradually move towards a common market price as more information is received.

It was pointed out above that an important phenomenon in the markets for manufactured goods is the incomplete substitutability and heterogeneity of products. In recent research a distinction is very often made between products with fixed and flexible prices or, to use another expression, between customer goods and auction goods. One reason for the existence of such a dichotomy (which of course is a simplification of a continuous scale of various degrees of price flexibility) is the possible variation of price adjustment costs, on the one hand, and the costs associated with alternative methods of adjustment between products and branches, on the other.

**TABLE 1. CHANGES IN THE PRICES OF MANUFACTURING GOODS, 1969-1981**

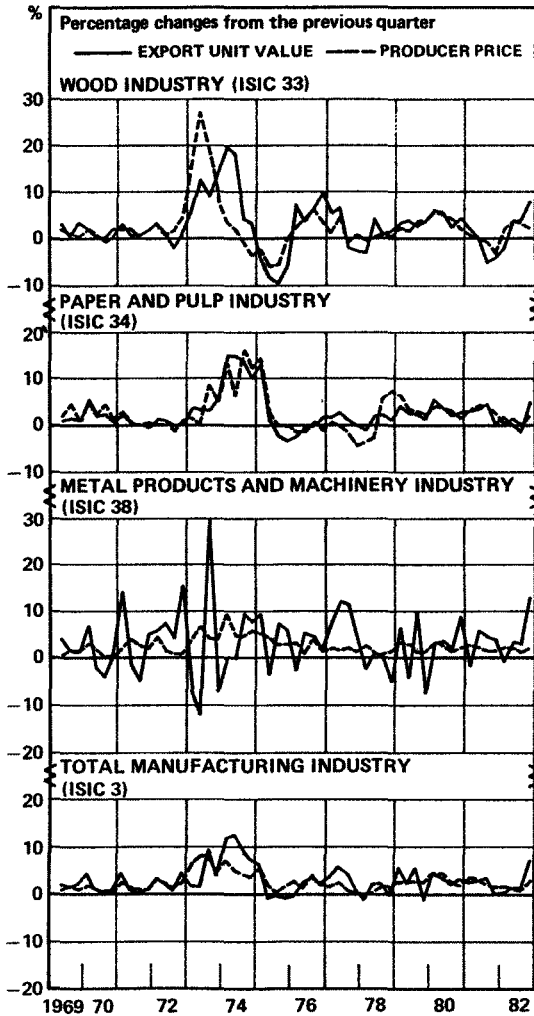
Average quarterly change in per cent  
(standard deviation of quarterly changes in brackets)

Branch (ISIC)	Export unit value	Producer prices
31 Food, beverages and tobacco	2.8 (6.4)	2.5 (2.0)
32 Textiles, clothing and leather	2.6 (4.6)	2.3 (1.9)
33 Wood products	3.1 (5.7)	2.7 (5.6)
34 Paper and pulp products	3.0 (4.0)	2.8 (4.4)
35 Chemicals	3.3 (5.0)	3.4 (3.4)
36 Pottery, glass and stone products	3.0 (5.0)	3.5 (3.3)
37 Basic metals	2.4 (6.1)	2.1 (5.1)
38 Metal products and machinery	3.2 (7.0)	2.9 (1.8)
39 Other manufactured products	2.7 (2.3)	n.a. (n.a.)
3 Total manufacturing	3.2 (3.1)	2.8 (2.0)

#### PRICE MOVEMENTS IN FINNISH MANUFACTURING IN 1969 - 1981

Various indicators of the prices of open sector products give somewhat different pictures of their trend growth and quarterly fluctuations (Table 1 and Chart 1). To a great extent these differences arise from different compilation and weighting methods. Export unit values have, during the period 1969 - 1981, both increased faster and fluctuated more than producer prices. For the whole manufacturing industry, export unit values have increased at a trend rate of 3.2 per cent (producer prices 2.8 per cent) while the standard deviation of quarterly changes has been 3.1 percentage points (in the case of producer prices 2.0 percentage points). While the average increase in prices over the thirteen years studied has fluctuated within a rather narrow range between branches, the differences in the average quarterly variation between branches has been larger. When comparing the pictures given by different indicators of price developments in the same branch, it can be clearly seen that these pictures are most consistent in branches

**CHART 1. QUARTERLY CHANGES IN THE PRICES OF MANUFACTURED GOODS, 1969 - 1982**



with a homogenous structure of production (wood, and paper and pulp industries, in particular).

### THE STRUCTURE OF COMPETITION

When studying the impact of competitors' prices on open sector prices, one important decision to be made is how to define and measure these competitors' prices. This decision should be based on the theoretical approach chosen and should also reflect the view adopted concerning the firms' decision-making process. For different market areas, different time horizons and different questions

asked, it is probable that a different selection of competitor countries, their relative weights and the price indicators used would be most relevant. In the empirical work reported in this article, we used 14 competitor countries' branchwise producer prices weighted together separately for each branch. The weights were derived from a trade matrix to reflect not only the shares of various market countries in that industry's total exports but also the major western competitor countries' shares both in their home markets and in third countries' markets.

The weights derived for different branches and for the whole manufacturing industry are given in Table 2. The figures indicate that Sweden and the Federal Republic of Germany are clearly the most important competitors on average as well as in most individual branches. In several branches the United Kingdom and the United States are of considerable importance as well, whereas weights for other countries are, as a general rule, rather small. It should be noted, however, that owing to lack of data the socialist countries and the newly industrializing countries (NICs), which in reality are important competitors at least in certain branches, had to be left out of the calculation.

### OVERALL PICTURE OF PRICE FORMATION IN THE FINNISH MANUFACTURING INDUSTRY

Chart 2 gives preliminary information on the relationship between prices of manufactures and competitors' prices and domestic costs. The chart illustrates first the fact that rather prolonged divergences have occurred between producer prices and competitors' prices (expressed in the same currency). Between 1972 and 1976, for instance, producer prices in total manufacturing increased by 30 per cent more than competitors' prices. In some branches the cumulative divergence during the same period was clearly greater. During the 1976 - 1978 period, however, producer prices in Finnish manufacturing industry increased by 20 per

**TABLE 2. MAIN COMPETITOR COUNTRIES FOR DIFFERENT BRANCHES IN MANUFACTURING<sup>1</sup>**  
**Percentage shares**

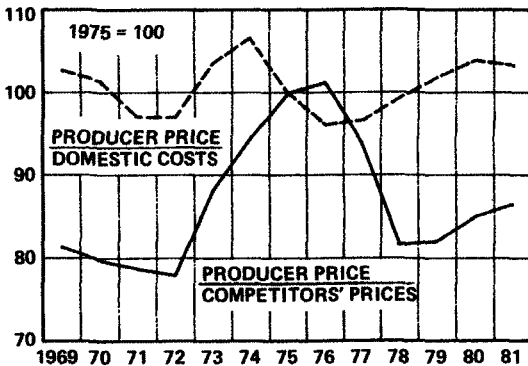
Competitor country	Branch									
	(Share in total manufacturing in brackets)									
	31	32	33	34	35	36	37	38	39	3
	(12)	(8)	(8)	(23)	(12)	(4)	(4)	(28)	(1)	(100)
Canada	2	—	2	8	—	2	—	1	3	2
United States	74	3	10	4	3	4	3	10	17	7
Japan	—	3	2	3	1	12	3	9	9	4
Austria	1	6	4	6	1	3	3	3	4	4
Belgium	1	3	2	12	5	3	4	1	3	3
Denmark	8	6	5	2	4	3	2	3	6	4
France	6	5	7	5	5	7	6	9	8	6
Federal Republic of Germany	8	17	18	13	24	21	24	22	19	18
Italy	3	6	3	1	2	2	2	6	5	3
Netherlands	9	2	4	3	17	2	2	12	4	4
Norway	16	4	1	3	2	1	7	3	4	4
Sweden	18	27	36	24	23	17	30	17	10	23
Switzerland	6	7	7	4	4	5	2	5	3	4
United Kingdom	8	17	5	21	15	25	9	9	11	14
	100	100	100	100	100	100	100	100	100	100

<sup>1</sup> The principles applied in the calculation of the weights are described in the text.

<sup>2</sup> Branches are referred to by their SIC-codes; see Table 1 for explanations. The shares of different branches describe their percentage shares of total value added in the whole manufacturing sector.

cent less than competitors' prices. As regards the ratio between producer prices and domestic costs, fluctuations have been smaller, moving within a range of 10 per cent on average. The general conclusion from both ratios, however, is that prices of the manufacturing sector cannot be exclusively determined either by competitors' prices or by domestic costs.

**CHART 2. PRODUCER PRICES IN RELATION TO COMPETITORS' PRICES AND DOMESTIC COSTS IN TOTAL MANUFACTURING**

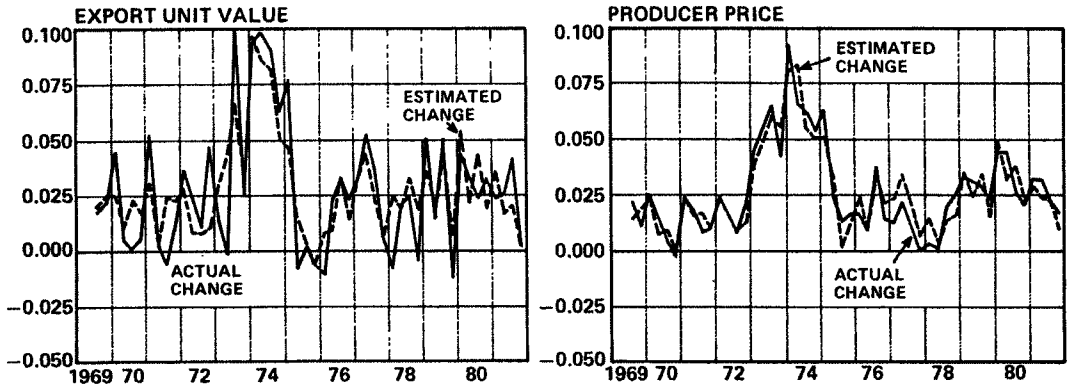


1) Prices and costs are expressed in common currency.

Statistically more convincing conclusions about the general characteristics of price behaviour in the total manufacturing sector can be drawn either on the basis of price equations estimated solely for total manufacturing or on the basis of groups of price equations covering all main branches. The latter approach allows the entire extensive data to be utilized in the most efficient way. Chart 3 summarizes the estimation results by aggregating results of the branch level estimations to the industry level. The chart gives an overall picture of the fit of the estimated equations and thus of their explanatory power. In general it can be seen that producer prices could be explained rather well while the results were somewhat weaker, even if satisfactory, for export unit values.

According to the estimation results, the prices of foreign competitors, domestic costs and foreign demand are all significant explanatory variables for quarterly price movements. This is indisputable in the case of the first two variables and fairly clear for foreign demand as well. These results refer to the immediate impact of the explanatory variables during one

**CHART 3. ACTUAL AND ESTIMATED CHANGES IN THE PRICES OF MANUFACTURED GOODS (changes in logarithmic differences)**



quarter. As can be seen from the figures in Table 3, the immediate impact of competitors' prices on export unit values is roughly twice as big as that of domestic costs. In the case of producer prices this relationship is reversed.

The estimated aggregate price equations and the tests carried out in connection with the system estimations show, however, that pricing in the total manufacturing industry follows the formula of gradual price adjust-

ment so that the impact of exogenous shocks on prices extends beyond the quarter in which they take place. When extending the framework to a price-volume model, it was also observed that export and output volumes follow the formula of gradual adjustment. The adjustment towards desired values is nevertheless faster for volumes than for prices. The adjustment processes of prices and volumes seem to be connected with each other so that a disequilibrium between the desired and actual volume tends to slow down price adjustment, whereas a corresponding disequilibrium in prices promotes volume adjustment. The reason for the differences in the speeds of adjustment of prices and volumes and cross-effects of opposite sign is thought to lie in the fact that price adjustment costs are greater than the costs of volume adjustment.

**TABLE 3. EFFECTS OF A 10 PER CENT CHANGE IN COMPETITORS' PRICES OR DOMESTIC COSTS ON PRICES OF MANUFACTURED GOODS**

	Export unit values	Producer prices
<b>COMPETITORS' PRICES</b>		
Immediate effect (percentage points)	3.7	1.2
Final effect (percentage points)	7.0	3.6
Time taken in quarters to reach		
50 per cent	1.9	2.4
75 per cent	3.2	3.9
100 per cent of the final effect	9.6	11.1
<b>DOMESTIC COSTS</b>		
Immediate effect (percentage points)	1.7	2.4
Final effect (percentage points)	3.3	5.5
Time taken in quarters to reach		
50 per cent	1.9	2.4
75 per cent	3.1	3.5
100 per cent of the final effect	8.3	10.6

On the basis of the simulation tests performed, it was possible to reveal the final effects of changes in the explanatory variables on prices and the time path of these effects (Table 3). At the level of total manufacturing, the picture of the relative significance of the explanatory variables does not essentially change even if we replace the overall effect for the immediate effect (as deduced directly from regression calculations). In time, the significance of the price of foreign competitors in comparison to domestic costs perhaps gains a little more weight. Roughly speaking, 70 to 80 per cent of

a sudden change in competitors' prices is transmitted to export prices in the course of two years, whereas for domestic costs the corresponding penetration percentage is approximately 30. As far as producer prices are concerned, the situation is almost the opposite, since 50 to 60 per cent of changes in costs is reflected in prices, while the corresponding figure for prices of competitors is only about a third. An increase of 10 percentage points in foreign demand pressure is reflected in export prices with a weight of about one third. The effect on producer prices appears to be slightly bigger.

The results of the present study can be compared to earlier domestic research results mainly as regards the overall picture obtained of pricing in the open sector. Prices of Finnish exports have most often been assumed to be determined exclusively or almost exclusively on the basis of the prices of foreign competitors and exchange rates. Both the OLS estimations of the aggregate equations for total manufacturing and the system estimations of corresponding groups of equations for branches clearly reveal the significance of domestic costs for pricing for both exports and manufacturing output as a whole. This impression is maintained when the analysis is extended to the cumulative price effects over the entire impact period of external shocks. The results of the study thus give every reason to reject the extreme version of the small-open-economy hypothesis according to which the prices of Finnish industrial products are, even in the short term, formed solely on the basis of competitors' prices.

One especially striking result concerning general price formation in manufacturing was the dampening effect on the diversity of pricing behaviour caused by aggregation. According to the results, it is quite incontestable that the same parameter values are not suitable for all branches in the case of the overall model or for most individual variables. In the following, we take a closer look at the variation in price formation between different branches.

## PRICE FORMATION IN DIFFERENT BRANCHES

According to the research carried out, the nine major branches of the manufacturing industry may be roughly divided into three groups according to the relative significance of domestic and foreign (immediate) pricing effects. The food, beverage and tobacco industry, the textile, clothing and leather industry, the pottery, glass and stone processing industry, the metal products and machine industry and other manufacturing (a residual group consisting of several small industries) do not react significantly in their pricing to price developments in foreign substitutes. Rather, they base price changes on changes in domestic costs and in some cases also on changes in foreign demand. By contrast, prices in the chemical industry and in the basic metals industry appear to follow prices of corresponding foreign products fairly closely; they hardly react at all to movements in domestic costs. Between these extremes there remains the forest industry, in which pricing is influenced by both foreign prices and domestic costs as well as by foreign demand.

When we move on to examine the total effects of factors explaining price changes instead of just immediate effects, the situation as regards dominant influences in the different branches changes to some degree. There is a general increase in the significance of foreign price developments. Prices in the chemical industry and the basic metals industry follow those of competitors, as in the very short run, but in other branches, too, the significance of foreign inflation increases in the course of time. However, domestic costs retain their central role in pricing in the metal products and machine industry, in the textile, clothing and leather industry and in the pottery, glass and stone processing industry, especially as regards producer prices. With the exception of the food, beverage and tobacco industry, foreign demand is significant in the longer term in the pottery, glass and stone processing industry, the metal products and machine industry and other manufacturing. The forest industry re-

mains midway between the extremes for both domestic and foreign effects.

Generally speaking, changes in explanatory factors appear to be transmitted to prices somewhat faster in the metal products and machine industry than in the forest industry (Table 4). Dispersion in the time paths of transmission effects is nevertheless fairly small in the initial quarters of the pass-through period, during which time the major part of the effects almost without exception takes place.

**TABLE 4. PRICE ADJUSTMENT COEFFICIENTS<sup>1</sup>**

Branch (ISIC)	Export unit values	Producer prices
31 Food, beverages and tobacco	.23	.49
32 Textiles, clothing and leather	.37	.30
33 Wood products	.42	.16
34 Paper and pulp products	.44	.27
35 Chemicals	.28	.25
36 Pottery, glass and stone products	.41	.42
37 Basic metals	.58	.47
38 Metal products and machinery	.60	.40
39 Other manufactured products	.67	n.a.
3 Total manufacturing	.32	.23
Branch average	.44	.35

<sup>1</sup> Adjustment coefficients vary between zero and one. Values close to zero mean extremely slow adjustment while immediate adjustment is indicated by a coefficient value of one.

# MONETARY AND FOREIGN EXCHANGE POLICY MEASURES FROM JANUARY 1986 TO DECEMBER 1986

**1986**

## **January**

*Interest rate policy.* The Bank of Finland lowers its base rate from 9.0 to 8.5 per cent as from January 1, 1986. In the same context, the upper limit on the banks' lending rates is rescinded. The Bank of Finland requires, however, that the rates of interest applied to loans granted for the acquisition of a dwelling intended for own use are not raised in relation to the base rate.

As a result of this decision, the rates applied by the banks to existing loans and tax-free deposits are also generally presupposed to fall by 0.5 percentage point.

*Regulation of average lending rates.* The Bank of Finland revises its regulation of banks' average lending rates. With effect from the beginning of 1986, the average interest rate at the end of each calendar month may at most be the Bank of Finland's base rate plus 1.75 percentage points. If the average interest rate on a bank's total markka-denominated deposits exceeds the Bank of Finland's base rate by more than 1.25 percentage points, a bank's average lending rate may at most equal the average deposit rate for the month in question plus 0.5 percentage point.

*Call money market.* From the beginning of 1986, the Bank of Finland revises the system applied in the call money market, so that it pays a lower rate of interest on deposits than it charges on call money advances.

The rate on call money advances remains at 11.7 per cent while the rate on call money deposits is 11.0 per cent as from January 2.

*Revision of foreign exchange regulations.* In connection with the renewal of the Foreign

Exchange Act, which enters into force at the beginning of the year, the Bank of Finland updates and partially liberalizes the foreign exchange regulations, the revised regulations also becoming effective on January 1, 1986.

Among other things, the penalty surcharge scheme applied to short-term import credits is abolished; the maximum period for suppliers' credit which does not require the special permission of the Bank of Finland is now six months. Investments in securities quoted abroad and in the form of funds held in accounts with foreign monetary institutions are permitted up to a maximum of FIM 10 000 a year per resident. The upper limit on foreign exchange which may be acquired for the purchase of a second home abroad is raised to FIM 600 000. Authorized banks are granted the right to surrender travel exchange without upper limit on the basis of a breakdown of costs drawn up by the purchaser of travel exchange. Securities brokers are accorded the same rights as the authorized banks to act as intermediaries in securities transactions between residents and non-residents.

*Cash reserve requirement.* The Bank of Finland lowers the cash reserve requirement from 5.3 per cent to 5.0 per cent of the total stock of deposits at the end of January.

*Payments arrangement between Finland and Czechoslovakia.* In keeping with an agreement concluded between Finland and Czechoslovakia in August 1985, the practice whereby transactions are settled in convertible currencies is extended for three years from the beginning of 1986. Under the agreement, the payments arrangement is henceforth to be renewed automatically for three years at a time unless otherwise agreed upon subsequently.

*Payments arrangement between Finland and Poland.* In accordance with an agreement

concluded in December 1985, payments between Finland and Poland in 1986 may be effected in Finnish markkaa as well as in US dollars.

*Call money market.* The Bank of Finland lowers the rate on call money advances from 11.7 to 11.4 per cent and the rate on call money deposits from 11.0 to 10.7 per cent as from January 24.

## February

*Cash reserve requirement.* The Bank of Finland lowers the cash reserve requirement from 5.0 per cent to 4.7 per cent of the total stock of deposits at the end of February.

## March

*Interest rate policy.* The Bank of Finland lowers its base rate from 8.5 to 8.0 per cent as from March 1, 1986. As a result of this decision, the rates applied by the banks to existing loans generally fall by 0.5 percentage point. The rates applied to tax-free deposits are lowered by the same amount.

*Call money market.* The Bank of Finland lowers the rate on call money advances from 11.4 to 11.2 per cent and the rate on call money deposits from 10.7 to 10.5 per cent as from March 3.

*Investment reserves.* On March 20, the Council of State decides to release, as from October 1, 1985, investment reserves made by companies for accounting periods ending in 1984 for use elsewhere than in the Greater Helsinki area. The utilization period is to expire on December 31, 1987.

## May

*Interest rate policy.* The Bank of Finland lowers its base rate from 8.0 to 7.0 per cent as

from May 19, 1986. At the same time, the rates applied by the banks to existing loans fall by one percentage point, whereas the rates applied to 12 and 24 month deposits fall, at most, by 0.75 percentage point. The rates applied to other tax-free deposits fall, at most, by one percentage point.

*Regulation of average lending rates.* The Bank of Finland raises the upper limit on the banks' average lending rate in relation to the base rate by 0.25 percentage point with effect from May 19, 1986. The new upper limit is the Bank of Finland's base rate plus 2 percentage points or 9.0 per cent. If the average interest rate on a bank's total markka-denominated deposits exceeds the Bank of Finland's base rate by more than one percentage point, the bank's average lending rate may at most equal the average deposit rate for the month in question plus one percentage point.

*Call money market.* The Bank of Finland implements the following changes in its call money rates:

Effective as from	Rate on call money advances Per cent	Rate on call money deposits Per cent
May 13	13.0	12.3
May 14	16.0	15.3
May 16	14.0	13.3
May 20 (I)	13.0	12.3
May 20 (II)	12.0	11.3
May 22	11.0	10.3

*Amendments to Foreign Exchange Regulations.* The authorized banks are granted permission to use foreign credit to finance their customers' long-term export receivables as from May 13, 1986. Similarly, exporters are, on application, granted permission to raise foreign finance in their own names in order to finance their long-term export receivables.

As from May 16, 1986, the Bank of Finland removes the upper limit on the amount of foreign financing credits for imports mediated by banks. At the same time, the Bank decides



to start treating domestic foreign currency deposits received by banks as equivalent to banks' foreign borrowing; subsequent to this, banks are, in practice, no longer able to grant domestic credits denominated in foreign currency.

## June

*Call money market.* The Bank of Finland lowers the rate on call money advances from 11.0 to 10.8 per cent and the rate on call money deposits from 10.3 to 10.1 per cent as from June 6.

*Amendments to Foreign Exchange Regulations.* The Bank of Finland revises the Foreign Exchange Regulations in some respects with effect from June 16, 1986. The main points of the amendments are as follows:

The prohibition concerning the sale of Finnish bonds and debentures to non-residents is rescinded on the condition that they are bought with earnings or sales proceeds from Finnish bonds and debentures acquired previously or with funds held in Finland by persons who have emigrated from Finland.

The authorized banks and other securities agents are permitted to sell foreign securities from their own portfolios to residents within the quantitative limits set in the Foreign Exchange Regulations.

In addition, the Foreign Exchange Regulations are relaxed mainly with respect to payments for goods and services, and certain quantitative limits included in the Foreign Exchange Regulations are raised.

*FIM bond issue by the Nordic Investment Bank.* The Nordic Investment Bank issues FIM bonds in Finland totalling FIM 250 million, up to half of which the Bank of Finland permits to be sold directly to foreign investors. At least half of the issue is to be sold to domestic investors, but once quoted on the Helsinki

Stock Exchange, the bonds can be sold and purchased abroad on the secondary market through the Stock Exchange.

## August

*Call money market.* On July 31, the Parliamentary Bank Supervisors extend to the Board of Management of the Bank of Finland, until further notice, unlimited powers to raise the call money rate. In this context, the Bank of Finland decides to introduce, as from August 1, a call money rate policy under which call money rates are henceforth to be determined in accordance with the foreign exchange reserves. Thus, call money rates are to rise when foreign exchange reserves decline and fall when foreign exchange reserves grow.

The Bank of Finland implements the following changes in its call money rates:

Effective as from	Rate on call money advances Per cent	Rate on call money deposits Per cent
August 1 (I)	11.2	10.2
" 1 (II)	11.6	10.6
" 4	12.4	11.4
" 5 (I)	13.2	12.2
" 5 (II)	15.2	14.2
" 5 (III)	25.0	24.0
" 7	40.0	39.0
" 14	35.0	34.0
" 15 (I)	30.0	29.0
" 15 (II)	25.0	24.0
" 18	20.0	19.0
" 20	19.0	18.0
" 26	18.0	17.0
" 29	17.0	16.0

*Regulation of average lending rates.* The Bank of Finland abolishes the regulation of average lending rates as from August 1.

*Revision of foreign exchange regulations.* As from August 1, the Bank of Finland decides to exempt from regulation foreign credits with a maturity of at least five years raised by manufacturing and shipping companies for financing their own operations. The decision on the removal of control does not apply to bond or debenture issues denominated in Finnish markkaa.

## September

*Call money market.* The Bank of Finland implements the following changes in its call money rates:

Effective as from	Rate on call money advances	Rate on call money deposits
	Per cent	Per cent
September 2	16.0	15.0
September 5	15.0	14.0
September 9	14.0	13.0
September 12	13.5	12.5
September 18	13.0	12.0
September 26	12.5	11.5

*Cash reserve requirement.* As an exception to the cash reserve agreement concluded with the banks, the Bank of Finland decides to pay interest on cash reserve deposits for the period September–December 1986 at a rate which is 3 percentage points below the Bank of Finland call money lending rate, however, not less than 1/4 percentage point below the Bank of Finland base rate.

## October

*Call money market.* The Bank of Finland implements the following changes in its call money rates:

Effective as from	Rate on call money advances	Rate on call money deposits
	Per cent	Per cent
October 2	12.0	11.0
October 16	11.8	10.8

The decision of the Parliamentary Bank Supervisors on the temporary removal of the upper limit on the call money lending rate expires on October 21, 1986. From that date, the upper limit on the call money lending rate is again the base rate plus 15 percentage points.

*Investment reserves.* On October 23, 1986, the Council of State decides to release, as from April 1, 1986, investment reserves made for accounting periods ending in 1984 for use in the Greater Helsinki area. The utilization period is to expire on December 31, 1987.

In the same context, the Council of State decides to raise the special investment allowance from 3 to 6 per cent outside the Greater Helsinki area. The increased allowance can be applied to investment reserves to be used during accounting periods ending between November 1, 1986 and December 31, 1987.

*Change in the cash reserve agreement.* Samuel Montagu Osakepankki starts operations in Finland at the beginning of October, and on October 17, 1986 it joins the cash reserve agreement between the Bank of Finland and the banks.

## November

*Changes in the terms of central bank financing.* As from the beginning of November, the Bank of Finland grants Samuel Montagu Osakepankki the same rights to central bank financing and to participation in the call money market as the other commercial banks. After Bank of Helsinki Ltd ceases operations as an independent bank and is merged with Union Bank of Finland Ltd at the beginning of November, the Bank of Finland cancels the rights of Bank of Helsinki Ltd to central bank financing and to participation in the call money market with effect from November 1, 1986.

*Lending rates.* On November 28, 1986, the Bank of Finland decides that, in future, lending rates applied in short- (up to 1 year) and medium-term (between 1 and 5 years) loan agreements may be linked to a reference rate which reflects the cost of unregulated short-term funding. The introduction of a reference rate requires the prior approval of the Bank of Finland.

Banks are still required to link lending rates on all housing loans and on all long-term loans of more than five years to the Bank of Finland's base rate or to charge fixed rates of interest on such loans. In addition, banks may continue to apply these interest rates to short- and me-

dium-term credits. Similarly, they may continue to link lending rates on short-term credits to the call money rate.

## **December**

*Terms of central bank financing.* On December 1st, 1986, the Bank of Finland introduces a system under which the banks may, in addition to call money credit, also obtain central bank financing in the form of longer-term credits at fixed rates of interest. Initially, only three-month credits are to be granted and the quantity of credit and the rate of interest charged are to be determined on the basis of banks' requests for credit within the frame-

work of the targets set for central bank financing by the Bank of Finland. The upper limit on the rate of interest applied to fixed-rate term loans extended by the central bank is the same as that on the call money lending rate, i.e. the base rate plus 15 percentage points.

For the present, the Bank of Finland does not undertake to accept longer-term deposits at fixed rates.

*Call money market.* The Bank of Finland lowers the call money deposit rate from 10.8 to 9.0 per cent as from December 1 and raises the rate on call money credits from 11.8 to 11.9 per cent as from December 2 and further to 12.0 per cent as from December 9.

## ITEMS

**The banks' central bank financing.** On December 1st, 1986, the Bank of Finland is to introduce a system under which the banks may, in addition to call money credit, also obtain central bank financing in the form of longer-term credit at a fixed rate of interest.

Initially, longer-term credit will be granted only for three months and the quantity of credit and the rate of interest charged on it will be determined on the basis of banks' requests for credit and in keeping with the targets set for central bank financing by the Bank of Finland. According to the new system, both the quantity of credit granted and the rates of interest on it may vary daily.

For the present, the Bank of Finland will not undertake to accept fixed-rate longer-term deposits. The introduction of such deposits will depend on the monetary policy situation.

Fixed-rate central bank credit will increase the flexibility of the Bank of Finland's interest rate policy and improve its transmission to longer-term rates. In addition, it will support the development of the short-term money market.

The aim is that, within a few months' time, the major part of the banks' call money credit will be converted into longer-term credit.

For the time being, however, the call money market will remain as before, although there will be marked reduction in the call money deposit rate.

**Finland's balance of payment in January-September 1986.** According to the Bank of Finland's preliminary figures, the current account showed a deficit of FIM 4 774 million in January-September of this year. The net inflow of long-term capital amounted to FIM 3 281 million and the net outflow of short-term capital to FIM 7 119 million. Since the total net inflow was less than the deficit on the current account, the Bank of Finland's foreign exchange reserves declined by FIM 8 612 million.

In January-September 1985, the current account had shown a deficit of FIM 2 122 million.

*Current account.* The trade account (including adjustment items) registered a surplus of FIM 1 724 million in January-September, as compared with a surplus of FIM 3 110 million in the corresponding period last year. Commodity exports were down 6 per cent in value and 3 per cent in volume on January-September 1985. Export volumes in January-September 1986 fell in all sectors of industry except the basic metals industry. The value of commodity imports declined by 4 per cent and the volume by 7 per cent as compared with the corresponding period last year. The growth in import volumes was mainly due to an increase of almost one third in imports of fuels.

The services account showed a deficit of FIM 90 million in January-September, as against a surplus of FIM 560 million in the corresponding period last year. The swing into a deficit in the services account was primarily due to a weakening in the transport account and a widening of the deficit on the travel account. Travel receipts were down by 3 per cent, while travel expenditure was up by 7 per cent, giving rise to a deficit of FIM 1 663 million. At FIM 2 085 million, the surplus on the transport account was one quarter smaller than in the same period last year owing to a sharp decline in transport receipts. The "other services account" recorded a deficit of FIM 512 million.

Interest payments on foreign loans amounted to FIM 10 034 million. With interest income on foreign assets reaching FIM 5 046 million, the investment income account showed a deficit of FIM 4 988 million. This was FIM 220 million more than in January-September 1985. The unrequited transfers account registered a deficit of FIM 1 129 million.

*Capital account.* Drawings of long-term loans amounted to FIM 13 089 million in January-September, FIM 4.8 billion more than in the

**MAJOR BALANCE OF PAYMENTS ITEMS  
JANUARY — SEPTEMBER 1986, MILLION FIM<sup>1</sup>**

	Receipts	Expenditure	Net
Trade (exports + c.b., imports c.r.f.)	59 588	57 370	2 218
Adjustment items	-125	369	-494
Trade account	59 463	57 739	1 724
Transport (c.r.f.)	3 681	1 596	2 085
Travel	2 446	4 109	-1 663
Other services	3 282	3 794	-512
Services account	9 409	9 499	-90
<b>GOODS AND SERVICES ACCOUNT</b>	<b>68 872</b>	<b>67 238</b>	<b>1 634</b>
Investment income, net	5 046	10 034	-4 988
Unrequited transfers	304	1 433	-1 129
Other	2 465	2 756	-291
<b>A. CURRENT ACCOUNT</b>	<b>76 687</b>	<b>81 461</b>	<b>-4 774</b>
	Change in assets	Change in liabilities	Net
Long-term financial loans and suppliers' credits: <sup>2</sup>			
drawings	-737	13 089	12 352
redemptions	1 076	-9 112	-8 036
Direct investment	-1 643	391	-1 255
Other long-term capital	-413	633	220
<b>B. LONG-TERM CAPITAL ACCOUNT</b>	<b>-1 720</b>	<b>5 001</b>	<b>3 281</b>
<b>BASIC BALANCE (A + B)</b>			<b>-1 492</b>
Prepayments and liabilities related to imports			-1 243
Prepayments and receivables related to exports			-2 389
Short-term capital of authorized banks			-4 770
Other short-term capital			56
Errors and omissions			1 226
<b>C. SHORT-TERM CAPITAL ACCOUNT</b>			<b>-7 119</b>
<b>D. ALLOCATIONS OF SDRs</b>			<b>-</b>
<b>OVERALL BALANCE (A + B + C + D)</b>			<b>-8 612</b>
Change in the foreign exchange reserves of the Bank of Finland			8 612

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

<sup>1</sup> Preliminary figures.

<sup>2</sup> Assets include export credits only.

corresponding period last year. The central government accounted for FIM 4 310 million of the drawings. Repayments of long-term loans totalled FIM 9 112 million. Drawings of long-term export credits granted to foreign customers reached FIM 737 million and repay-

ments of outstanding export credits FIM 1 076 million. Finnish net direct investment abroad amounted to FIM 1 646 million and net foreign direct investment in Finland to FIM 391 million. Portfolio investment in Finland totalled FIM 598 million in net terms. The total net inflow of long-term capital reached FIM 3 281 million, which was about FIM 2.5 billion less than in the corresponding period last year.

Short-term capital outflows (including errors and omissions) totalled FIM 7 119 million. Short-term liabilities related to imports fell by an estimated FIM 1 243 million, while net prepayments and receivables related to exports increased by FIM 2 389 million. The net short-term liability of the authorized banks went down by FIM 4 770 million.

The foreign exchange reserves of the Bank of Finland declined by FIM 8 612 million. The convertible foreign exchange reserves fell by FIM 11 561 million. The receivables in tied currencies grew by FIM 2 949 million. At the end of September, the convertible foreign exchange reserves of the Bank of Finland totalled FIM 10 859 million and the tied currency claims FIM 2 654 million.

At the end of September, Finland's net foreign debt amounted to FIM 51 559 million, of which the central government accounted for FIM 24 519 million. The net long-term debt stood at FIM 61 494 million and net short-term claims at FIM 9 935 million.

**Publication of the Bank of Finland.** The following publication has appeared in series B:42: Tuomas Sukselainen, Hinnanmuodostus Suomen teollisuudessa vuosina 1969 — 1981 (Price formation in the Finnish Manufacturing Industry in 1969 — 1981), doctoral dissertation published in Finnish with an English summary. Helsinki 1986, 399 pp., ISBN 951-686-124-5, ISSN 0357-4776.

See the article in this issue of the Bulletin.

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# BANK OF FINLAND

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Harri Holkeri

Seppo Lindblom  
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Esko Ollila  
*Absent as Minister  
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Markku Puntila  
*Acting Member of the Board*

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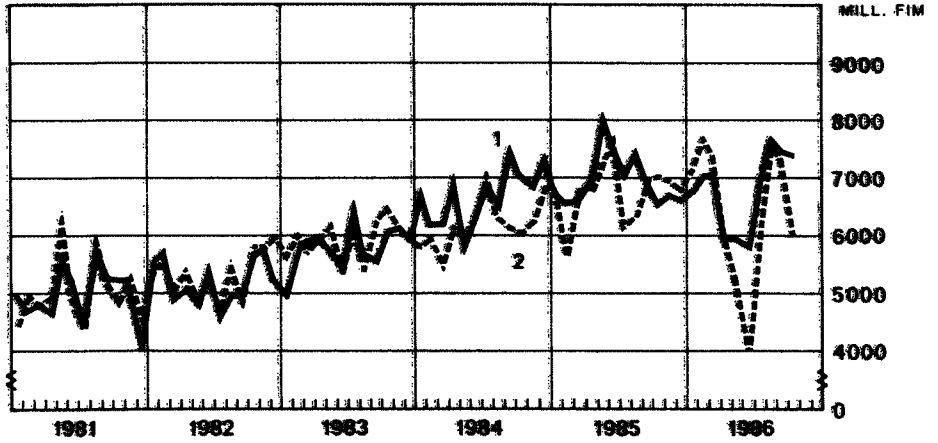
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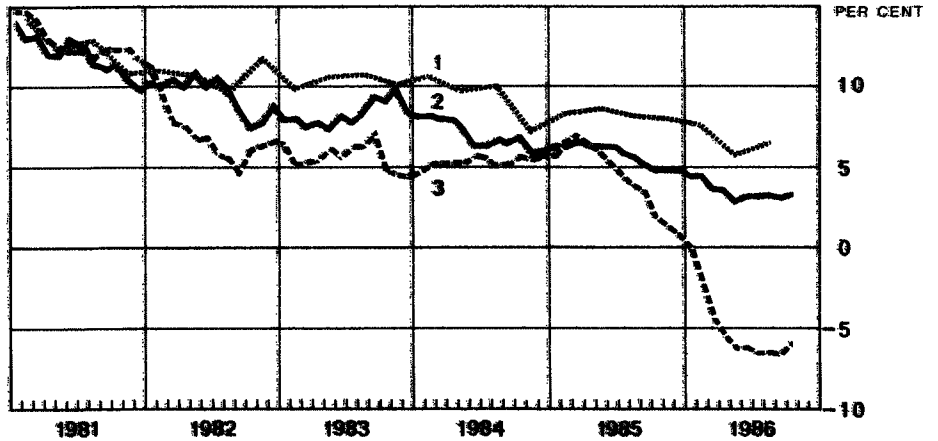
**FOREIGN TRADE, 1981-86**

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



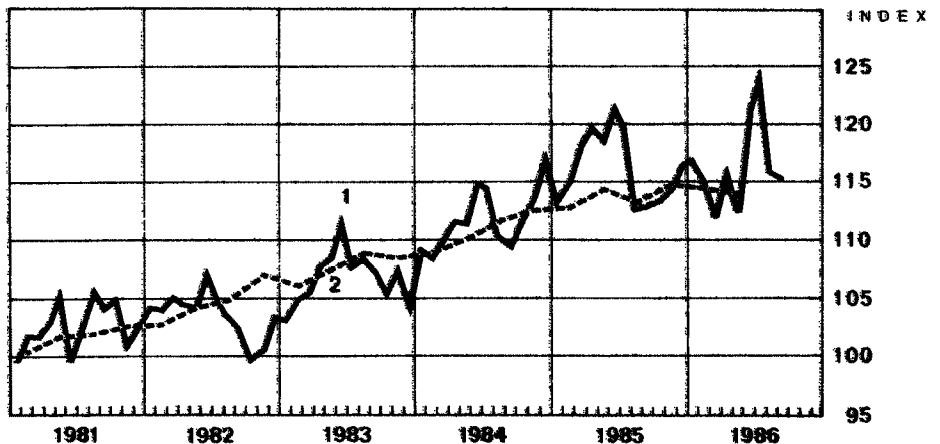
**PRICES AND WAGES, 1981-86**

- 1. Index of wage and salary earnings 1980 = 100, quarterly figures
  - 2. Consumer price index 1981 = 100, monthly figures
  - 3. Basic price index for domestic supply 1980 = 100, monthly figures
- Percentage change on previous year



**PRODUCTION, 1981-86**

- 1. Total index of industrial production 1980 = 100, seasonally adjusted monthly figures
- 2. Volume index of gross domestic product 1980 = 100, seasonally adjusted quarterly figures



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