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The Bank of Finland's macroeconomic forecast 2003–2005

Finnish gross domestic product grew by 1.6% in 2002. The fastest increase was recorded in the spring, due to a spurt in industrial output, but toward year-end growth turned sluggish. In the summer of 2002 it was still widely felt that in 2003 the growth rate worldwide would return to close to trend. However, as the year wound down, recovery of the world economy came to a halt and sentiment became uncertain. Now, with 1.7% forecasted for 2003, Finnish GDP growth is likely to be very modest for the third year running – an exceptionally long period of sluggish growth. Looking further ahead, the outlook is for annual GDP growth of less than 3%[1] (Chart 1, Table 1).

It is likely that total production will be lower in the early part of 2003 than in the latter part of 2002. Economic growth will be nearly flat over the first half of 2003, with declines in both exports and investment. Domestic demand has continued to grow, thanks largely to private consumption, which also posted strong growth in 2002. Consumers' continuing confidence in their own finances has been bolstered by steady developments in income, a low level of interest rates, and a benign employment situation. Companies' positive outlook and a growth-structure oriented toward domestic demand have buoyed employment. Growth of private consumption will remain just below 3% in 2003, but the decline should decelerate toward the end of the forecast period as real income growth picks up and the level of interest rates rises.

Despite the slowing of economic growth, unemployment has not increased as feared. The unemployment rate will nonetheless increase slightly in 2003, due to sluggish growth, but should subsequently resume its downward trend. The employment rate will decline in 2003 but should improve modestly over the following years, to about 68%. The forecast would suggest that it will not be possible to raise the employment above 70% and push the unemployment rate markedly lower, even if the economy were to grow considerably faster than predicted. Better-than-forecasted employment performance would require structural changes in the labour market and in taxation.

The rate of inflation, as measured by the harmonised index of consumer prices (HICP), was slightly lower than expected in 2002. The decline in inflation was widespread, as the increase in prices of food, non-energy industrial goods and services subsided. A decrease in energy prices in the early part of 2002 also affected the slowdown of inflation. HICP inflation should ease further in 2003, to 1.6%, largely because of moderate developments in import prices and lower inflation in the service sector, and to 1.2% in 2004, due to the effects of indirect taxes. By 2005 inflation is expected to lodge in the region of 2%, as economic growth picks up and unit costs of output rise.

Against a backdrop of uncertainty, world economic growth is likely to remain lacklustre in the coming months. Nonetheless, the tense political situation in the world is expected to gradually unwind. The US economy is bound to grope along as it moves into recovery phase, given the burdensome debt build-up in recent years by both households and certain nonfinancial corporations and the investment-constraining effects of abundant unused capacity. Growth in total output is expected to stabilise at about 3% pa toward the end of 2005, which is slightly below the estimated potential growth rate. Euro area economic growth remains very modest. A pick-up in growth is not expected before 2004–2005, when the world economy should be gaining momentum. Factors that would prompt spontaneous growth in the euro area are still not in sight. Euro area growth potential has been weakened by a loss of credibility of political

[1] The Bank of Finland's forecast figures are based on information available on 28 Feb 2003.

Table 1. Forecast summary

Demand and supply 2001–2005 (2000 prices)

	2001	2002	2003f	2004f	2005f
%-change on year earlier					
Gross domestic product	0.6	1.6	1.7	2.8	2.7
Imports	–0.2	1.7	3.5	6.7	5.7
Exports	–2.3	5.6	2.0	6.2	5.7
Private consumption	1.7	2.1	2.7	2.1	2.0
Public consumption	1.2	4.0	2.4	1.7	1.7
Private fixed investment	3.9	–2.2	–0.8	5.8	4.2
Public investment	3.2	7.0	–5.4	–2.9	–2.5
Inventory change + stat discrepancy, % of year-earlier total demand	–0.2	–1.4	0.3	0.1	0.1
Total demand	0.4	1.7	2.1	3.8	3.5
Final domestic demand	1.7	–0.1	2.2	2.7	2.4

Key economic indicators

	2001	2002	2003f	2004f	2005f
%-change					
Harmonised index of consumer prices	2.7	2.0	1.6	1.2	1.7
Consumer price index	2.6	1.6	1.5	1.3	1.9
Wage and salary earnings	4.5	3.2	3.9	3.7	4.0
Labour productivity	–0.1	1.7	1.9	2.0	2.3
Unit labour costs	5.8	1.4	2.1	2.0	2.2
Number of employed	1.4	0.2	–0.2	0.7	1.0
Employment rate, 15–64 year-olds, %	67.7	67.7	67.4	67.9	68.3
Unemployment rate, %	9.1	9.1	9.3	9.2	8.9
Export prices of goods and services	–1.1	–6.5	–1.8	0.1	1.2
Terms of trade	1.6	–3.7	–2.3	–1.4	–0.8
% of GDP, national accounts					
Ratio of taxes to GDP	45.5	45.5	44.9	45.0	45.3
General government net lending	5.1	4.7	3.3	3.5	4.0
General government debt (EMU definition)	43.8	42.7	42.0	41.0	39.4
Goods account	10.4	9.9	8.6	8.2	8.1
Current account	7.1	7.4	6.2	6.1	6.2
Avg interest rate on deposit banks' new loans, %	5.1	4.2	3.6	3.6	4.2

f = forecast

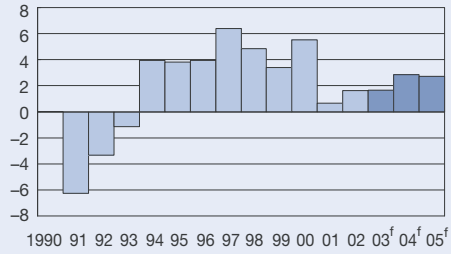
Sources: Statistics Finland and Bank of Finland.

Chart 1.

Key economic indicators

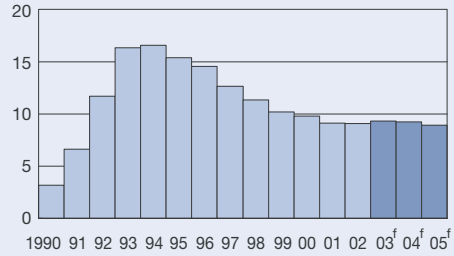
Gross domestic product

% change



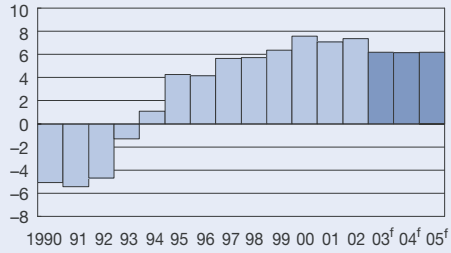
Unemployment rate

%



Current account

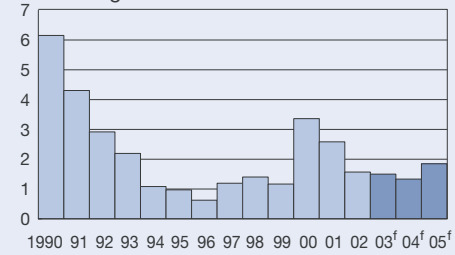
% of GDP



Inflation

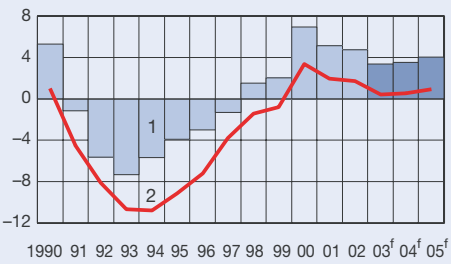
Consumer price index

% change



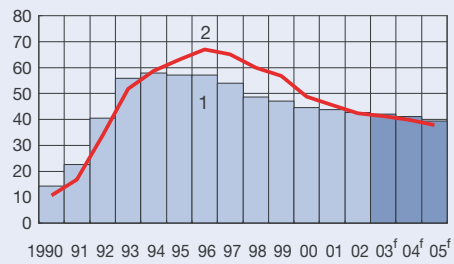
General government fiscal position (EMU definition)

% of GDP



General government debt (EMU definition)

% of GDP



1. General government
2. Central government

f = forecast

Sources: Statistics Finland and Bank of Finland.

Box. Forecast assumptions

International trade and import prices

Because of a number of structural problems, the world economy will grow relatively slowly in the next few years compared to the latter half of the 1990s. Growth in the first half of 2003 is constrained by the threat of war in Iraq and related uncertainties, as reflected eg in inflated oil prices. Due to sluggish world economic growth, the markets for Finnish exports will grow by only just over 3% in 2003. Cautious recovery is expected to commence at earliest in the latter part of 2003, and import growth in Finland's export markets should pick up moderately in 2004, to 5%, and in 2005 to nearly 7%.

Export prices of Finland's trade partners are projected to decline 3.5% this year in connection with the appreciation of the euro. Another result of the slow recovery of the world economy is that the rise in export prices of Finland's trade partners will be only about 1–2% in 2004-2005. It is expected that the recent years' downward trend in non-oil commodity prices will be reversed in 2003 and that these prices will rapidly approach their normal level in 2004 and then increase at about 3% pa.

In recent months the price of oil has lodged at the exceptionally high level of just over USD 30 per barrel. It is nonetheless anticipated (per market expectations) to decline steadily toward USD 25 by early 2004 and then to stay at that level until the end of the forecast period. And, since importers are not expected to fully pass through the currency appreciation into import prices, these are projected to remain on average nearly at the 2002 level in 2003 and to increase 1.5% in 2004 and 2% in 2005.

Interest and exchange rate expectations derived from market expectations

Interest rate and exchange rate expectations are derived from market expectations on 28 February 2003. Thus the underlying assumption is purely technical and so does not reflect a view on the interest rate policy of the ECB Governing Council nor entail an estimate of the equilibrium exchange rate. Expectations are calculated from publicly quoted interest rate futures[1]. Market participants expect short-term interest rates to continue to decline during the spring, to about 2.5%, and then to increase to 3.5% by the end of 2005 (Chart A). Correspondingly, the external value of the euro should remain in the range of USD 1.06–1.07. Finland's nominal competitiveness is expected to remain steady during the forecast period (Chart B).

[1] An interest rate future is a standardised money market instrument that enables immediate fixing of the interest rate on a debt instrument that is due at a future date. Assumptions on long-term interest rates are based on an estimated yield curve as at 28 Feb 2003 (Seppälä – Viertiö, 'The Term Structure of Interest Rates: Estimation and Interpretations', Bank of Finland Discussion Papers 19/1996).

Table. Forecast assumptions

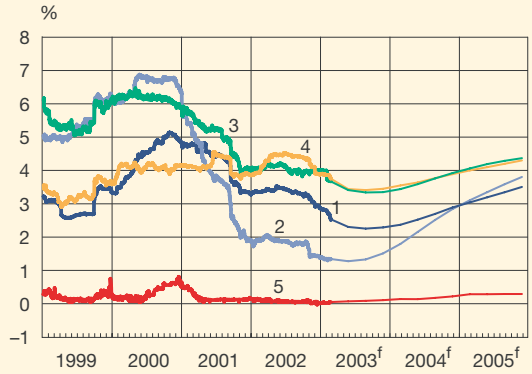
	2001	2002	2003f	2004f	2005f
Import volume in Finnish export markets, % change	1.5	1.5	3.1	5.1	6.8
Finnish import prices, % change	–2.1	–3.3	0.3	1.4	1.9
Oil price, USD per barrel	24.4	25.0	30.4	25.3	25.0
Import prices in Finnish export markets, % change	0.7	–2.4	–3.5	1.2	1.8
3-month EURIBOR, %	4.3	3.4	2.3	2.6	3.3
Yield on taxable 4–5 year government bonds, %	4.5	4.4	3.3	3.7	4.1
Finland's nominal competitiveness indicator[1]	94.4	95.5	98.5	98.5	98.6
US dollar-value of one euro	0.90	0.94	1.07	1.06	1.06

[1] Narrow plus euro area, 1999 QI = 100

f = forecast

Sources: Bank of Finland and Statistics Finland.

Chart A. 3-month interest rates and market expectations: selected currencies



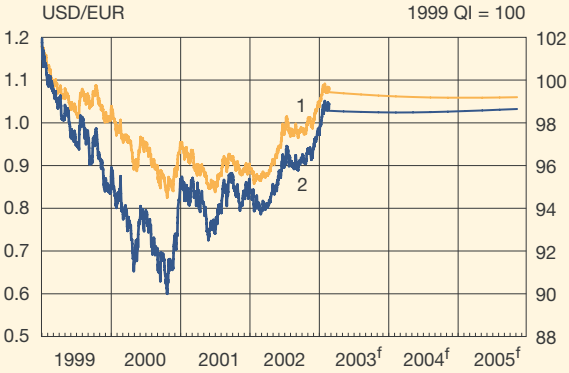
Interbank rates

1. Euro area
2. United States
3. United Kingdom
4. Sweden
5. Japan

f = forecast

Sources: Bloomberg and Bank of Finland.

Chart B. Expected exchange rates



1. USD-value of one euro (LHS)
2. Finland's nominal competitiveness indicator (RHS)[1]

f = forecast

[1] Narrow plus euro area.

Source: Bank of Finland.

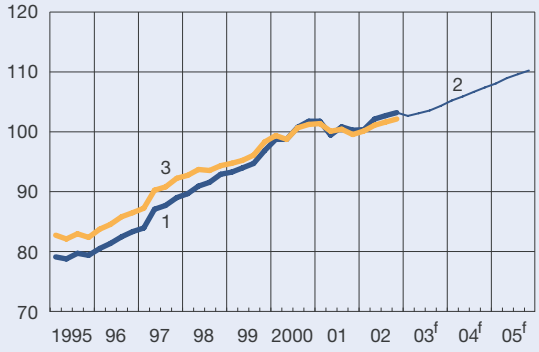
will to take advantage of single markets for goods, capital and labour by removing structural roadblocks.

The growth and pronounced volatility of output in the information and communications technology (ICT) sector (Chart 2) masked sluggish developments last year in other export sectors. Total exports increased 5.6% in 2002 compared to 2001. It is estimated that export growth for 2003 will be a modest 2%, due to a poor performance in the early part of the year. Looking further ahead, the pick-up in exports is likely to remain modest, nor is a spurt in growth expected, even though short-term developments in the ICT sector are likely to continue to dominate movements in GDP.

The view of world economic developments underlying the forecast is based on the assumption of balanced risks. Although the risk of slower growth is obvious and significant, better-than-forecasted developments are certainly possible, especially in the early part of the forecast period. The prime risk of a decline is connected with possible flare-up and prolongation of geopolitical tensions. The effects of such threats are extremely difficult to accurately predict. Other downside risks are connected with problems of the US and Japanese economies that have long had dampening effects on world economic growth. On the other hand, a removal of uncertainty could restore confidence in quick improvements of conditions in the United States and around the world, which could jumpstart corporate investment and household consumption and thus lead to faster-than-predicted growth of output. Recovery in the early phase could even be swift,

Chart 2. GDP indicator, Finland

Volume index, 2000 = 100



1. Monthly GDP indicator
2. Bank of Finland forecast
3. Monthly GDP indicator excl. manufacture of electrical and optical equipment

Seasonally adjusted, last observations: 2002 Q4

f = forecast

Sources: Statistics Finland and Bank of Finland.

as pent-up demand is released and companies build up inventories in anticipation of a rising economy.

In the coming years, employment will be key to Finland's economic performance. One of the big risks is that labour demand may not increase as expected. At present output levels, a surfeit of employees is eroding companies' productivity. Further delay of economic recovery would likely put an end to 'labour hoarding'. If the risks associated with international economic developments are realised, the wage-cost levels in place for the next two years will pose a significant threat to employment. Moreover, even if the employment rate develops as projected and unemployment is reduced, this would hardly salvage the situation, given the current problems related to economic structures and population ageing. Because of the high level of structural unemployment, raising the employment rate would require the transfer of substantial numbers of inactive persons into the labour force.

The primary uncertainty regarding the government sector forecast relates to the extent to which the strong position of the sector, especially the central government, is attributable to one-off factors. In 2002 direct and indirect taxes paid by households and institutions and interest payments made by the central government were clearly among the one-off factors that will no longer impact public finances during the forecast period. One-off factors could add up to more than estimated, in which case the central government budget in particular would be weakened enough to post deficits in 2003 and 2004. Moreover, the future of alcohol taxation is uncertain. In order to prevent a possible decline in domestic sales of alcohol, it may be necessary to reduce the excise tax on alcohol by more than anticipated. It should also be noted that the forecast takes into account policy measures that are known with certainty, whereas there are significant pressures for changes in expenditures and taxes during the forecast period.

Export growth will again fall short of market growth

In the first half of 2002 the outlook for foreign trade was good; exports grew rapidly, thanks largely to brisk activity in the second quarter. During the second half of the year, export growth slowed as prospects for the world economy dimmed. The outlook for the forest industry improved notably in the early part of the year, but later in the year output peaked and then levelled off at the second-quarter level. ICT output and exports again fluctuated widely from quarter to quarter, in accord with market conditions.

For the whole year 2002, export volume grew by nearly 6%, which was considerably more than was still expected in the spring. However, due to a faster-than-expected decline in prices, the value of exports declined in 2002. The surprisingly robust growth of export volume was partly the result of strong pro-

ductivity growth in the ICT sector, where export prices plummeted 11% compared to 2001. The decline in export prices, to be sure, was largely due to improved product quality, as the number of mobile phones exported was about the same as in 2001.

Because of weak market conditions, growth of goods exports will be subdued in the first half of 2003 compared to the second half of 2002. Although the cost-efficiency of Finnish exporters is still good, their costs have, in the last few years, risen a bit faster than competitors' costs, so that many exporters are now somewhat less able to survive in difficult market conditions.

Looking at different industries, exports of both the electronics and paper industries were lacklustre in the early part of 2003 compared to the latter part of 2002. In the early months of 2003 subdued investment demand in euro area countries and slowing growth of industrial production have been reflected also in slumping exports of other industrial products in the early part of this year. Export weakness is also affected by depreciation of the US dollar. As the world economy slowly recovers toward the end of this year, Finnish exports too will begin to pick up. Faster growth of export markets will gradually bolster export prospects in all industries. But because of moderate performance in the early part of the year, export volume will increase by only 2% in 2003 compared to 2002, ie by considerably less than export market growth.

Export growth should accelerate to about 6% pa in 2004–2005. According to the forecast, ICT exports will continue to grow but at a slower rate than before. In some industries, such as the forest industry, capacity utilisation rates will approach normal levels toward the end of 2004, albeit some industries that produce traditional products may continue to suffer from soft demand and cost problems. Thanks to recovery in the market areas, export prices, following a prolonged downtrend, should increase marginally toward the end of the forecast period. Thus the structural problems of the world economy and related sluggish growth of world trade over the next few years will also affect many of the Finnish industries. For this reason, the forecast does not include the typical quick post-recession rebound of Finland's traditional exporting sectors.

For the whole forecast period, exports are estimated to grow slightly more slowly on average than the export markets. This will mark a definite qualitative change from the 1990s when, mainly due to the ICT sector, Finnish exports grew considerably faster than the export markets. Even though the growth of market share came to a halt around the turn of the century, the forecast does not indicate a return of the sluggish export growth that typified the 1980s (Chart 3). The growth rate for exports of sectors other than ICT will remain notably lower than that for the export markets. Although for some companies export growth in the coming years will be held back by capacity and other constraints such as a shortage of special skills, competitiveness problems may continue to plague a few companies outside of the high-tech

Chart 3. Finnish exports relative to export markets

f = forecast

Source: Bank of Finland.

sectors. It seems that several of the traditional industries are suffering to some degree from an inability to adjust, which is reflected in lacklustre productivity performance.

The decline in import prices, which is connected to slack international demand, continued in 2001–2002. Import prices have also been constrained by a downtrend in oil prices and euro appreciation. In 2003, with oil prices declining as assumed in the forecast and euro appreciation coming to halt, import prices should embark on a moderate upward trend. If the euro should continue to strengthen, the risk is that this will be reflected in a sharper-than-forecasted drop in import prices rather than an improvement in importers' margins. The rise in import prices will pick up to about 2% in 2005 as the world economy recovers.

Because of cautious export growth and declining export prices, the balance on goods and services is set to weaken this year, according to the forecast, but there should be further improvement starting in 2004. Because of a long series of current account surpluses, Finland's net external debt (NIIP excl. equity items) has been shrinking. In this context, payments to factors of production have been sharply declining. The payment flows (on net) actually reversed direction in 2003 and thus will add to the current account surplus during the forecast period. The current account surplus is projected to remain at just over 6% of GDP throughout the forecast period.

Investment start-up delayed

Weak economic conditions and an exceptionally high degree of uncertainty regarding world economic recovery are behind the cautious investment behaviour. Fixed investment declined in 2002 for the first time since 1994. In terms of investment, last year was especially bad as regards industrial companies; even R&D investment decelerated. According to the forecast, fixed investment is set to decrease again in 2003 as a result of continuing economic uncertainty. For example, in the manufacturing sector, investments have been aimed mainly at restoring capacity and rationalisation; only about a third of total investment will boost production capacity. Things are much the same in other sectors.

Of factors influencing investment, the real interest rate will remain low throughout the forecast period. This, combined with a pick-up in exports and economic activity, as uncertainty diminishes, will lead to a reasonable recovery of investment over the next two years. In 2004 private nonresidential investment should increase by about 6.5% pa and housing investment should pick up steam. Toward the end of the forecast period, investment growth will no longer accelerate, due eg to rising interest rates, and in 2005 fixed investment will increase by about 3.5% pa. Public fixed investment is expected to decline each year of the forecast period, mainly because municipalities are assumed to postpone investments because of poor financing conditions.

Improvement of the employment situation comes slowly

The labour supply is likely to continue to increase moderately, at 0.4% pa, over the forecast period (Table 2). However, the situation will not continue indefinitely, as the effects of population ageing will begin to surface soon after the forecast period. The

Table 2. Employment

	2001	2002	2003f	2004f	2005f
Change on year earlier, %					
Labour force	0.6	0.2	0.1	0.6	0.6
Employed	1.4	0.2	–0.2	0.7	1.0
Unemployment rate, %	9.1	9.1	9.3	9.2	8.9
Employment rate, %	67.7	67.7	67.4	67.9	68.3

f = forecast

Sources: Statistics Finland and Bank of Finland.

present working age population (especially baby boomers born in 1946–1965) will be reaching retirement age in the years 2005–2030, as younger and smaller cohorts are joining the labour force. The inevitable consequence is a steady shrinking of working age (20–64) population starting in 2005. Hence, we face a future of dwindling numbers of employed.

The growth of employment slowed significantly in 2002. Manufacturing employment in fact went into a steep decline in the latter part of the year. Employment has been buoyed by activity in the construction and public and private service sectors. In 2003 the number of employed will decline due, inter alia, to softening export market demand in the industrial sector. This prognostication derives partly from a weak employment outlook for the rest of the year in the industrial sector and weak growth prospects for other sectors. Labour demand, however, will recover during the following two years as economic activity picks up.

The employment rate, which has behaved in much the same manner as employment, will fall this year to 67.4% and should increase to about 68% in the course of 2005. What is important is that over the next ten years it will be possible to increase employment, despite a decline in working age population, provided we can sufficiently raise the labour force participation rate. Depending on the method of calculation, Finland has unused potential labour totalling some 200,000–300,000 persons. If we would want to raise the employment rate to about 75%, the number of employed would need to be increased by about 250,000, which would of course be difficult, inter alia, because the bulk of unemployment is structural.

The unemployment rate is projected to rise slightly year-on-year in 2003, to 9.3%. In 2004–2005 unemployment should resume its downward trend. This scenario does however entail risks. The number of persons covered by active labour market policies is again on the rise, in fact rapidly as regards participants in labour force training. Moreover, the decline in youth unemployment has come to a halt. Companies have 'hoarded' labour despite the deteriorating economic outlook. If the increase in economic activity falls short of forecast or is delayed, companies will find it more difficult to employ the current labour force and hence there is a chance that the unemployment outcome will exceed the forecast.

Rapid rise in earnings level

Although the growth of households' total wages slowed in 2002, the forecast indicates a fairly robust pick-up during the forecast period, to about 5% pa in 2005. This, combined with modest productivity growth (some 2% pa for the whole economy), will lead to rising unit labour costs toward the end of the forecast period, to about 2.2% (Table 3). This is clearly a fairly high rate of increase and so will have implications for inflation.

Under the present wage agreement, contract wages will rise by 2.9% in 2003 and 2.3% in 2004. The earnings level is expected to rise by about 4% pa over the forecast period. The magnitude of wage drift during the forecast period will be 1.3% on average, ie slightly more than in recent years. This increase

Table 3. Costs and prices

	2001	2002	2003f	2004f	2005f
%-change on year earlier					
Wage and salary earnings	4.5	3.2	3.9	3.7	4.0
Avg wage	4.9	2.6	4.0	3.9	4.4
Productivity[1]	–0.1	1.7	1.9	2.0	2.3
Labour costs	5.0	2.2	3.8	3.9	4.4
Unit labour cost	5.8	1.4	2.1	2.0	2.2
Harmonised index of consumer prices	2.7	2.0	1.6	1.2	1.7

[1] Relative to hrs worked.

f = forecast

Sources: Statistics Finland and Bank of Finland.

will put upward pressure on wages as the recovery unfolds, which will exacerbate our high and persistent structural unemployment. The average wage rate (total wages per hour) will rise slightly faster than the earnings level. In terms of earnings level, average wage rate, contract wages, and wage drift, there will be little difference between the private and public sectors.

Labour productivity is forecasted to accelerate this year compared to 2002. The forecast calls for nearly 2% growth in 2003, followed by similar growth in 2004 and 2005, in the context of a moderate pick-up in economic activity. Productivity growth will continue to be bolstered by the electronics industry. Also noteworthy is that in future average productivity growth will be slower than before due to a phase of slower growth for the ICT sector and the concentration of employment growth on sectors in which productivity growth is muted.

Private consumption bolstering growth

Despite sluggish growth of the economy, consumers' confidence in their own finances has held firm and in fact strengthened toward the end of 2002. This, along with steady growth of real disposable income (some 2% in 2003), is buoying private consumption (Table 4). One could say that economic growth in 2003 will derive largely from growth of private consumption, which is forecasted at 2.7% compared to 2002. The reduction in car taxes at the start of 2003 will be clearly reflected in increased car sales and hence also in private consumption.

Over the next couple years, the growth of private consumption will slow to about 2% pa. Due to rapid growth of exports and investment, growth of the economy will be slightly less dependent on private consumption. It is projected that growth of real disposable income will increase to over 2% in 2004, because of low inflation and an increase in total wages. A pick-up in inflation in 2005 will slow the rise in real income, to 1.7% pa. Increasing dividends will also boost households' purchasing power during the forecast period. On the other hand, a decrease in options-based income and realised decline in share prices could have a dampening effect on consumption.

Households' indebtedness still on the rise

The expected upturn in market interest rates in early 2002 was not realised. Instead, the level of interest rates fell markedly in the course of the year. Both long- and short-term rates have declined. Within the forecast period, the level of interest rates should begin to rise only in 2004. Based on recent market expectations, the three-month market rate is projected at 2.3% for 2003 and 3.3% for 2005. Long-term rates are expected to rise over the same time span from 3.3% to 4.1%. Market interest rates – nominal and real – will be remain at low levels during the forecast period, which will show up directly in lending rates. Rates on new loans have long been about a percentage point above the short-term market rate. If no changes are forthcoming in the interest rate margin,

Table 4. Household income, demand and savings

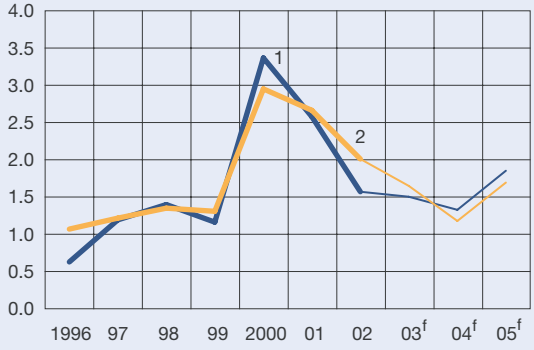
	2001	2002	2003f	2004f	2005f
Disposable real income, % change	1.5	2.0	1.9	2.3	1.7
Private consumption, % change	1.7	2.1	2.7	2.1	2.0
Housing investment, % change	–10.4	–1.4	1.9	3.5	3.0
Net savings ratio, %	0.0	0.5	–0.3	–0.1	–0.4
Bank lending, % of disposable income	61.1	64.9	67.3	68.9	71.3

f = forecast

Sources: Statistics Finland and Bank of Finland.

Chart 4. Inflation

Change on year earlier, %



1. Consumer price index
2. Harmonised index of consumer prices

f = forecast

Sources: Statistics Finland and Bank of Finland.

the rate on new loans will, even by 2005, only slightly exceed 4%. The era of low interest rates has already been an exceptionally long one. In real terms, the rate on new loans has been about 2% since the start of 1999, ie since the start of the monetary union.

The low level of interest rates has sharply boosted the demand for credit, and household debt has risen substantially. In recent years, household borrowing has increased at about 9% pa. During the forecast period, loan growth will slow somewhat with the rise in interest rates, to just below 7% pa in 2004 and 2005. The ratio of bank lending to households' disposable income rose by ten percentage points over the period 1998–2000, to 65%. If lending grows during the forecast period as projected, the ratio will increase to more than 70%.

Recorded bank lending to nonfinancial corporations grew by more than expected in 2002, partly due to a statistical revision. The projection for 2003 indicates a notable deceleration of the growth rate. However, by 2005 the growth rate should have picked up again to just under 7% pa. Deposits are set to increase steadily at some 4% pa over the forecast period.

Benign price behaviour

CPI inflation is forecasted at 1.5% for 2003. The reasons for the low rate are moderate developments in import prices and a slowing of the rise in service prices. Price behaviour in industrial products has also been benign, and the reduction in car taxes at the start of this year will have an especially pronounced dampening effect on inflation. Also inflation as measured by the harmonised index of consumer prices (HICP) will slow from 2% to 1.6% in 2003. The high price of energy is causing some upward pressure on the price level, but this will have a minor impact on the inflation rate for 2003 as a whole. The inflation outcome could be even lower if euro appreciation has a stronger-than-forecasted dampening effect on import prices.

The rate of increase in prices in 2004 should be still more modest, ie substantially under 1.5%, as measured by both the national CPI and the HICP. The assumed reduction in indirect taxes in 2004 would result in price declines for certain products. The reductions in indirect taxes on alcohol and tobacco alone are estimated to cause a temporary 0.4 percentage point reduction in inflation in 2004. Inflation is projected to hit 1.9% in 2005, due to a quickening of economic activity and ending of the tax-cut effect. While inflation pressures will be constrained during the forecast period by the sluggishness of the rise in import prices, both import prices and unit labour costs are likely to gain momentum in 2004 and 2005.

Rise in housing prices subdued

Housing prices rose rapidly in the first half of 2002, and activity in the housing markets was brisk. The

price rise continued throughout the year, albeit slowing enough that the rise for the whole year was only about 7.5%. The low level of interest rates, bank competition, and households' confidence in their own finances have maintained sales in the major population centres. In 2003 housing prices will continue to trend upward but at a considerably lower rate than in 2002. The rise in housing prices has been constrained, inter alia, by a recovery in housing construction, for which profitability remains good. On the other hand, housing demand remains firm in Finland, thanks to favourable developments in households' earnings and a general rise in targeted standards of housing. Persistently low interest rates and a lengthening of housing loans are also bolstering the demand for housing. The rate of increase in housing prices will exceed overall inflation in every year of the forecast period and should reach nearly 4% in 2005.

Central government surpluses shrinking

The budgetary surplus of the general government should decline and stabilise at about 3.5% of GDP in 2003 and 2004, as the surplus of the central government in particular shrinks by a full percentage point compared to 2002. Due to accumulations in the State Employees Pension Fund, the central government budget should remain in surplus throughout the forecast period. The local government sector will stay in the red despite increases in tax revenues and particularly state grants, as well as cutbacks in investment. The surplus ratio of social security funds will remain at just over 3%.

The debt of the general government will grow and that of the central government will remain fairly steady during 2003–2005. Debt reduction will not be possible because the local government sector will run deficits throughout the forecast period, and the central government's surpluses in 2003 and 2004 will depend entirely on the State Employees Pension Fund. Employee pension funds will unwind their investments in government debt instruments, nor is privatisation income assumed to accumulate. Nonetheless, relative to GDP, both the general and central government sector debts will continue to decline.

Direct taxes paid by households will increase in 2003 even though tax cuts will reduce revenues by about EUR 300 million. Because the revenue-effects of changes in indirect taxes will be mutually offsetting and corporate tax revenues will be lower than in 2002, the tax ratio should decline by about 0.5 percentage point. The growth in revenues from income

Table 5. General government financial balance, % of GDP

	2001	2002	2003f	2004f	2005f
General gov revenue	54.0	53.8	52.1	52.2	52.5
General gov expenditure	48.9	49.1	48.7	48.7	48.4
General gov primary expenditure	46.1	46.8	46.6	46.8	46.6
General gov interest expenditure	2.7	2.2	2.1	1.9	1.8
General government net lending	5.1	4.7	3.3	3.5	4.0
Central gov	2.0	1.7	0.4	0.6	0.9
Local gov	–0.3	–0.3	–0.1	–0.2	–0.2
Social security funds	3.5	3.3	3.1	3.2	3.3
General gov primary balance	7.9	7.0	5.5	5.5	5.9
General gov debt	43.8	42.7	42.0	41.0	39.4
Central gov debt	45.5	42.4	41.3	39.9	37.9
Tax ratio	45.5	45.5	44.9	45.0	45.3

f = forecast

Sources: Statistics Finland and Bank of Finland.

and wealth taxes will accelerate in 2004 and 2005, as total wages increase substantially, corporate profits improve, and inflation adjustments are made only for income tax rates. Moreover, the stubborn local government deficits suggest that many municipalities will be obliged to raise their tax rates again. Reductions in 2004 in alcohol and tobacco excise taxes will not suffice to offset the automatic tightening of local government taxation and (due to a higher earnings level) central government taxation of earned income, and hence the tax ratio will start to climb again.

Contributions for health and unemployment insurance have been lowered and those for employee pensions raised in 2003. All in all, changes in the bases for social security contributions will reduce cumulated contributions in 2003 by about EUR 200 million. Nonetheless, the growth of cumulated contributions will accelerate compared to 2002. In 2004 and 2005 cumulated contributions will increase faster than total wages, provided employee and employer contributions to employee pensions are increased as assumed.

Absent any decisions on significant new measures, the central government's expenditures are set to increase by some 4% pa on average in the course of the forecast period, which translates to less than 1% pa in real terms. Central government consumption expenditures will increase as total wages increase. A decrease in health insurance contributions and rapid increase in sickness allowances place a burden on the finances of the Social Insurance Institution of Finland. Coverage of the deficit run by health insurance funds and reform of local governments' recovery system for VAT refunds will result in an increase in central government transfer payments yet this year. In future, grants to local governments will continue to increase rapidly, as the central government is assumed to raise these fully in line with cost increases and to help finance the growth in municipalities' legally mandated expenditures.

Expenditures of local governments will grow faster during the forecast period than those of the central government, ie by about 4.5% pa. Local government consumption expenditures will increase faster than general government wages, as municipalities are obliged to increase numbers of employees in response to worsening labour shortages in health care and social services. The central government will cover the financing shortfall due to growth of legally mandated expenditures by increasing grants to local governments. Nonetheless, municipalities will be forced to reduce their investments in order to restrain deficit growth during the forecast period.

Payments of legally mandated pensions within the social security system will increase steadily, by just over 5% pa, in the course of the forecast period. Total pension payments will grow on average by more than 6% pa, as the TEL index rises and the number of employee-pension recipients increases and an increasing portion receive full pensions. At the same time, the number of national pensioners will decline and total pension payments will remain nearly unchanged. The growth in number of unemployed will boost 2003 unemployment-related expenditures of social security funds and central government. In addition, the central government will allocate more money to active labour market policies and increases in unemployment benefits. In 2004 and 2005, there will be decreases in unemployment and related expenditures.

Reductions in general government expenditures will continue during the forecast period. The average interest rate on central government debt will continue to decline as maturing higher-interest loans are replaced by lower-interest loans.

Uncertain outlook for world economy

The recovery of the world economy[2] that began in early 2002 came to a halt toward year-end and the outlook became more uncertain. A number of factors came into play that constrain economic growth and will continue to do so in the coming years. In the United States the clean-up in the aftermath of the erosion of returns on ICT investment and stock market collapse is still far from complete. In the euro area, structural rigidities, public finance problems, and irresolute economic policies are preventing a spontaneous start-up of economic growth. Moreover, it seems that once again structural change is being shelved in Japan. These problems continued to fester in 2002. In this situation, the increase in geopolitical tensions and reverberations in the oil and financial

[2] Forecasts regarding the world economy are based on the Bank of Finland's own estimates using data available on 19 Feb 2003.

Table 6. International growth rates

	2001	2002	2003f	2004f	2005f
Real GDP, % change					
World	2.2	2.5	2.2	3.3	3.9
United States	0.3	2.4	1.6	2.6	2.8
Euro area	1.4	0.8	0.9	1.8	2.3
Japan	0.4	0.3	0.9	0.9	1.5
Import volume, % change					
World	0.1	1.6	3.4	5.2	7.0
United States	–2.9	3.5	3.3	3.3	5.6
Euro area	1.4	–0.6	3.2	5.3	6.1
Japan	0.1	2.1	3.0	1.8	3.3
Imports of Finnish export markets	**1.5**	**1.5**	**3.1**	**5.1**	**6.8**

f = forecast

Source: Bank of Finland.

markets, in conjunction with structural problems, are starting to dampen economic growth. The uncertainty has begun to affect most of all the inclination to invest, which has remained subdued, especially in the United States but also in the euro area.

According to the Bank's forecast, world economic growth, given the uncertainty factor, is likely to remain sluggish in the near future (Table 6). It is assumed that world political tensions will subside during 2003. As confidence is restored, broad-ranging economic growth should pick up in the latter half of 2003 and continue through 2004 and 2005. The pick-up will however be very gradual, because of above-mentioned structural and balance problems. The rise in interest rates, which will be quite muted, according to market expectations, will reflect a subdued medium-term growth outlook for the United States, Japan and the euro area.

It is forecasted that in 2003 US economic growth will be only about 1.5%. For the euro area, there is a chance of that growth will amount to less than 1%. Growth should revive in 2004, but actual growth rates not likely to reach potential until 2005. Throughout the forecast period, the Asian countries other than Japan will be pacesetters for the world economy; output there should grow at 5–6% pa.

World trade grew sluggishly in 2002, for the second year running. In future, trade should recover along with the world economy, but the long-run average of some 7% pa will not be achieved until 2005.

In recent years, world market prices have been subjected to variegated pressures. Sluggish market conditions have constrained the upward trend in goods prices; in fact, prices in some product groups declined in 2002. Changes in exchange rates, especially in the value of the US dollar, have also been reflected in lower foreign trade prices in the euro area. International tensions have boosted the dollar prices of certain commodities. Oil, in particular, has been subjected to strong upward price pressure. The causes of these price rises are assumed to be temporary, so that consumer price inflation in the industrial countries should remain subdued on average over the next few years.

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■ Key words: inflation, monetary policy, economic situation, forecast

Public finances and strengthening of coordination

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Public finances in the euro area

The budgetary position of the euro area general public sector improved steadily up until 2000, when the euro area public sector reached – largely due to UMTS auction revenues – a balanced position, but since then the situation has worsened notably. In 2001 the deficit amounted to 1.5% of GDP, and in 2002 it reached 2.3%. The latter figure means the return of the euro area to the debt level of 1998.

The problems have become especially troublesome for the large countries – Germany, Italy and France. Portugal has already been determined to have an excessive deficit under the Treaty establishing the European Community, and an excessive deficit procedure has been initiated against Germany and an early warning procedure against France. Italy has so far avoided official reprimand. Based on the latest stability programmes, serious commitments to improving the situation have been made mainly by Germany and Portugal. It appears that in France and Italy prospects for stable public finances rely on optimistic economic forecasts.

Although government deficits are not yet approaching mid-1990s levels, there are warning signs in sight. Repeated fiscal slippages put monetary policy in an awkward position. Sooner or later, long-term interest rates begin to rise. Pressures for tax hikes increase and private demand declines. As domestic demand decelerates, support for the price stability objective wavers and pressures grow for a loosening of monetary policy.

It is obvious that the political will to stabilise government finances is wavering, in the absence of an immediate need to fulfil the criteria for monetary union. The Stability and Growth Pact (SGP) has not succeeded in replacing the EMU's convergence criteria as the disciplinary tool. There seems to be a widespread perception that the goal of restoring the health of public finances is now an accomplished fact, so that economic policy can focus on other goals. In such an environment, there is a tendency for public finances to deteriorate until an acute crisis forces a change in attitude.

The situation is exacerbated by the fact that, in a slower growth environment, a 3% deficit ceiling is not sufficient to keep the government debt acceptably small. Behind the Maastricht treaty government finance criteria was the idea that, given a 5% nominal growth rate of GDP, a 3% government deficit would lead to stabilisation of the debt ratio at 60% of GDP. However, in the present situation, the assumption of 5% nominal growth is unrealistic for many euro countries. It is more likely that nominal GDP growth will level off at about 3–4%, which would imply that 3% deficits will lead to stabilisation of the debt ratio at some 80–100% of GDP. A debt ratio of this magnitude would clearly be troublesome for the monetary union.

In the long run, the situation is more likely to deteriorate than improve. Population ageing will have an impact on public finances in the coming decades in most of the euro countries; in fact, the ageing problem is more serious in many of these countries than in Finland. A year-ago evaluation by the Commission and EU Economic Policy Committee included eg Germany, France and Portugal among countries whose public finances are set to weaken to an alarming degree as pension and health costs mount. Since that time, these countries' public finances have weakened, which has exacerbated the sustainability problem.

The SGP objective of keeping fiscal positions close to balance or in surplus in the medium term provides ample justification for preparing for ageing-related cost pressures. Keeping public finances in balance on average over the business cycle means that government debt should decline over time and

approach zero. If this is not achieved, cost increases in coming decades will lead to tax tightening that will essentially cripple the dynamics of the euro area economy.

Outlook for the Stability and Growth Pact

A wide variety of proposals have been made publicly for improving the monitoring of euro area public finances, especially on reform of the SGP. The most important and most widely publicised of these is a November Commission communication on improving the coordination of public finances. The Commission did not call for any changes in the text of the SGP but did recommend significant changes in its interpretation. The proposal included five key points – briefly stated as:

(i) The medium-term objective of budget balance should apply to budget balance adjusted for the effects of the economic cycle and transitory factors.

(ii) Countries that have not yet achieved structural budget balance should improve their underlying budget positions by at least 0.5 percentage point per year until balance is achieved.

(iii) Pro-cyclical loosening of the budget in good times should not be allowed.

(iv) A small temporary deterioration in the underlying budget position could be allowed only if necessary for the member state to implement large structural reforms that will improve its underlying public finances position. A state could be given a longer-term exemption if its debt ratio is sufficiently low.

(v) In assessing a country's fiscal position, emphasis should be placed on the government-debt-to-GDP ratio. The provision in the Treaty establishing the European Community according to which a country whose debt ratio is higher than 60% is obliged to reduce it sufficiently and to approach the reference value at a satisfactory pace should be made operational. Moreover, population ageing should be taken into account in assessing the sustainability of public finances.

The Commission's proposal as a whole is reasonable and includes useful elements. In particular, the emphasis on, and clarification of, the debt ratio would be a useful improvement to the current surveillance framework. It would be natural and positive, from the perspective of legitimatising coordination of fiscal policies, that member states with low debt ratios be given fiscal leeway. Correspondingly, the compulsoriness of the coordination procedure should increase as the debt ratio rises. This kind of arrangement would increase member states' incentive to improve their budgetary positions and thereby reduce the risk of unnecessary conflict. The proposal is worthy of specification and further development.

There are however significant weaknesses in some parts of the Commission's proposal. The biggest problem is that it pushes analysis in the direction of complexity and opaqueness. One tendency that increases the complexity is the shifting of the assessment of public finances toward a more complete reliance on the 'cyclically adjusted budget deficit'. Cyclical adjustment is aimed at removing the cycle-dependent part of the government deficit, which would in time disappear, in order to measure the structural deficit.

A notable amount of resources has been expended to develop the cyclical adjustment methodology, and this has been discussed on several occasions eg in the ECOFIN Council. The outcome has been the introduction of various kinds of mechanical, ostensibly objective, calculation methods, which have flimsy economic bases, entail sizeable uncertainties, and in reality provide abundant opportunities for manipulating assessments of fiscal balance in the context of stability programmes.

There is wide agreement that the effects of cyclical and other temporary factors should be taken into account in assessing public finances. This is reflected in the medium-term time horizon used in the context of the SGP for assessing public finances, a time span that covers the business cycle. It does not however follow that fiscal balance should be judged solely, or even primarily, in terms of a mechanically cyclically adjusted measure. The time horizon for stability programmes is sufficiently long that short-term cyclical factors fade out of the picture. This means that the medium-term budget objective is already free of cyclical effects and that discussion of the fiscal stability can proceed directly on that basis without averting to cyclical adjustment methodology. Such discussion would proceed in more concrete terms and would focus attention where it belongs, ie on whether

a country's public finance objective is sufficiently ambitious and based on realistic assumptions as to economic performance and effectiveness of contemplated measures.

Certain other parts of the Commission's proposal are ambitious to the extent that one might question their feasibility. Avoidance of pro-cyclical loosening of fiscal policy per se is a useful goal, but it is unclear how it could become an operative part of fiscal policy coordination. Identification of situations in which a specific action is pro-cyclical is difficult already at national level. At the level of European cooperation, where the lags involved in analysis and decision-making are even longer, it is inevitable that the realisation of such coordination of fiscal stances would be random and often misdirected. This in turn would damage the legitimacy of fiscal policy coordination as a whole. Moreover, such a guideline would in certain situations be interpreted so that taxes could not be reduced in an economic upswing, which could constrain implementation of critical structural tax reform.

The proposal on exemption from SGP requirements when necessary for implementation of structural reforms that provide long-term support of public finances is theoretically justified but in a practical sense unfeasible. The proposal would mean that the Commission would be given a type of umpire role that no institution is equipped to handle. Evaluation of long-term effects of structural reform on budget deficits is problematic, even in the case of a simple tax-parameter adjustment. In the more typical case of a multidimensional structural reform package, it is impossible. The Commission's assessment in such case would be effectively random, opaque, subject to manipulation and pressures, and would not provide grounds for fruitful discussion in the ECOFIN Council. The presumable outcome would be a still more problematic coordination process and continuous conflict.

Another problem would be that giving true discretionary power to the Commission vis-à-vis cyclical and structural policies would exacerbate the problems of democracy deficit and division of responsibility. Would the people of the member states approve of the Commission preventing a tax cut because it felt that the budget effects would not be balanced over the long run? If decision-making power in fiscal and structural policies were ultimately in the hands of the Commission, who would be responsible for the consequences?

It would seem that, as regards the side conditions that the nature of a body that handles coordination of economic policies and requirements as regards economic analysis, the Commission's proposal is overly ambitious. Although it contains positive elements, it would not on the whole provide a useful basis for specifying the SGP.

In trying to enhance budgetary coordination, we should try to avoid the tendency toward increasing complexity that seems all too often to steer the discussion. Complicated surveillance systems inevitably leave gaps and fuzzy areas open to interpretation, which in turn need to be closed with still more complicated surveillance systems.

Reform of coordination should observe the following principles:

- The aim should be to develop a simple and transparent approach, relying only on calculations that can be readily replicated.
- The process of fiscal policy coordination should have a concrete foundation that will steer discussion toward economic, rather than technical, issues. In practice, this can be accomplished by emphasising the importance of the fiscal policy forecast as a tool of coordination. It could be agreed that stability programmes are not to be based on national economic forecasts but rather eg on the Commission's macroeconomic forecast.
- The goals of budgetary coordination should be realistic and readily implemented. The primary goal is to ensure the sustainability of public finances. Here, considerable strengthening of implementation is needed. As regards the cyclical position of fiscal policy and the effects of structural reforms, the most useful form of coordination is discussion and exchange of opinions.
- With regard to credibility of the monetary union, the government debt ratio is more important than the deficit and hence, the importance of the former should be underlined. Those countries with debts at a safe level could be given budgetary leeway. Highly indebted countries should be given definite timetables for reducing their debt ratios.
- The Commission should be given executive powers (eg to give advance warning) in situations in which the verification of a contravention of SGP

is a sufficiently straightforward and indisputable matter. Power should not be delegated as regards situations that could lead to competency disputes.

An approach observing these principles would be mechanical in nature and as such would necessarily entail arbitrarily chosen, unbending target values. It is inevitable that unbending goal values will always draw criticism. Yet a fiscal policy coordination framework that truly supports monetary union and is free of controversy in all circumstances is not a realistic aim. The idea that controversy can be averted by adding flexibility to the SGP arrangements is not credible. Flexible SGP arrangements would be open to interpretation, and so would lead to differences of opinion, political games, and in the end to conflict.

Credible arrangements cannot have the degree of flexibility that allows member states that miss agreed goals to avoid their obligations without short-term sacrifices. A functional coordination framework and practical economic policy flexibility can be combined only by ensuring that member states in normal times build sufficient leeway in respect of clearly defined minimum requirements.

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Key words: Stability and Growth Pact, fiscal policy coordination

Bank of Finland's new quarterly financial accounts

by **Laura Vajanne**, Head of Division
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The Bank of Finland has commenced publication of quarterly financial accounts, within the European Central Bank's comprehensive compilation of euro area financial accounts. The compilation is based on the European System of Accounts (ESA 1995), which means that Finnish data are comparable with corresponding data for the euro area. Annual financial accounts are compiled by Statistics Finland.

Analysis of financial wealth and indebtedness on the basis of financial accounts facilitates monitoring of changes and trends in the financial markets and enables analysis of the transmission of monetary policy to the economy. Moreover, financial accounts provide a basis for understanding the risks to financial stability, which in turn affect the availability and cost of financing and hence real economic performance. A further purpose of compiling comprehensive financial accounts for the euro area is to obtain comparable data on conditions in euro countries' financial markets on a continuing basis, particularly at times when changes are anticipated in the financial integration process in the Monetary Union.

The financial accounts have three main features, which form the basis for euro countries' financial accounts. First, economic units are grouped into sectors. The economy is comprised of two main sectors: financial corporations and the nonfinancial sector. The nonfinancial sector comprises nonfinancial corporations (incl. housing corporations[1]), households (incl. non-profit institutions serving households) and general government. For the whole economy, the offsetting figure for financial items is the net external financial position. Secondly, activities reflecting acquisition and use of finance are divided into the key instruments in financial intermediation – ie currency, deposits, loans, bonds, shares (quoted and unquoted), mutual fund shares, and insurance technical reserves (households' net equity in pension and life insurance reserves, insurance premium prepayments, and outstanding claims reserves) – and other assets and liabilities. The financial accounts also show the relationships between stocks and flows. Financial account stock data comprise liabilities and financial assets. Financial flows reflect decisions made during the quarter on funding and investment. Changes in stocks result from these financial transactions as well as from valuation and other accounting adjustments.

Currently in Finland, quarterly financial account data are available for the domestic sectors and the rest of the world sector in respect of financial assets and liabilities from end-1997 to 2002 Q2. Henceforth, financial account data will be published (at four-month lag) in the Bank's *Financial Markets Statistical Review* and on its website.[2] Later, the Bank will also publish quarterly data on financial transactions, ie financial flows that indicate how financing is intermediated between sectors. The ECB's Monthly Bulletin (statistical section) contains comparable data for the whole euro area.

Below, we present a few highlights from the Bank's new financial accounts. The primary focus is on households and nonfinancial corporations, but we will also take a brief look at financial corporations' financial assets and liabilities. The figures are presented in the table at the end of this article.

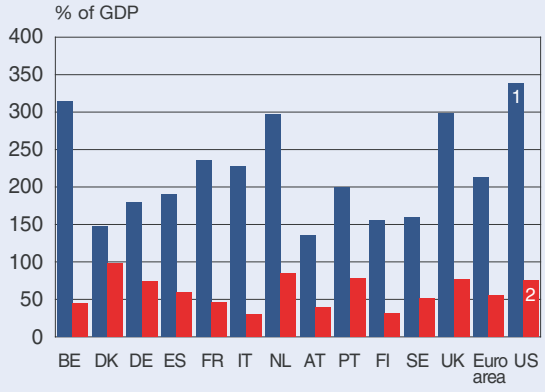
Households' shareholdings have declined by 50% compared to 2000

Households' (incl. non-profit institutions) gross savings, ie investments in main and second homes and

[1] Following the revised classification in the Finnish nonfinancial national accounts, in future the bulk of housing corporations will be included in the household sector (according to ownership).

[2] Data for 2002 Q3 will be published in the March 2003 issue of Financial Markets.

Chart 1.
Financial assets and liabilities of households and non-profit institutions serving households, 2000



1. Financial assets
2. Liabilities

Source: Eurostat.

in financial assets, amounted to about 9% of GDP in 2001. For the euro area, the corresponding figure was nearly 15% of GDP. The difference is largely due to the fact that in Finland the financing of employee pensions is for the most part legally mandated and thus occurs via the public sector, whereas most of households' pension saving in the euro area is handled via the private sector. Moreover, in Finland the number of self-employed persons is small, especially compared to southern European countries. The smaller number of self-employed reduces income and savings of the household sector.

A consequence of a savings rate that is lower than that of the euro area is that Finnish households' cumulated financial wealth is also lower. Finland's ratio of financial assets to GDP in 2000 was 156% compared to 213% for the euro area (Chart 1). If, for comparative purposes, holdings of housing corporation shares are excluded, households' financial assets shrink to 88% of GDP.

Finnish households' financial assets (excl. housing corporation shares) amounted to EUR 110 billion at the end of June 2002. Bank deposits comprise the largest part of financial wealth, albeit when share prices peaked in early 2000 shareholdings temporarily replaced deposits in the top spot. The amount of households' deposits has fairly steadily tracked income growth. Nonetheless, in recent years the deposit stock has grown at a slightly lower rate than disposable income, which is partly explained by the popularity of other investment outlets (Chart 2).

The biggest changes in the distribution of assets have been caused by changes in value. In June 2002 households owned listed shares worth only EUR 21 billion compared to EUR 44 billion in 2000 Q1. Movements in the value of shareholdings are explained by developments in share prices. Net changes in shareholdings have been quite modest, and the number of shares held by households is about the same as in the heady days of early 2000.

Households' insurance savings have increased rapidly, in fact more than doubling since end-1997. The bulk of these savings comprise technical reserves of life insurers and households' share in voluntary pension funds. Smaller items are insurers' reserves for unearned premiums and outstanding claims. Statutory employee pension insurance, on the other hand, is included in the general government sector.

Households' investments in mutual funds increased sharply along with the rise in share prices, and their total value has remained close to the same level over the last two-year period despite the decline in share prices. Investors have in fact continued to invest in mutual funds, but much of that money has moved from equity funds to fixed-income (bond and money market) funds. The difference in wealth taxation of mutual fund shares vs deposits has generally caused money flows between them around the turn of the calendar year. Mutual fund savings continue to account for a small share of Finnish households' financial assets compared to other euro area countries.

At mid-2002 households' liabilities amounted to EUR 46 billion, the bulk of which was accounted for by bank loans. Households' liabilities to banks were EUR 41 billion, of which three-fourths was in housing loans and the rest in consumer loans, student loans and small-business loans. Growth of banks' consumer loans has been sluggish in recent years, whereas housing loans have posted robust growth in Finland.

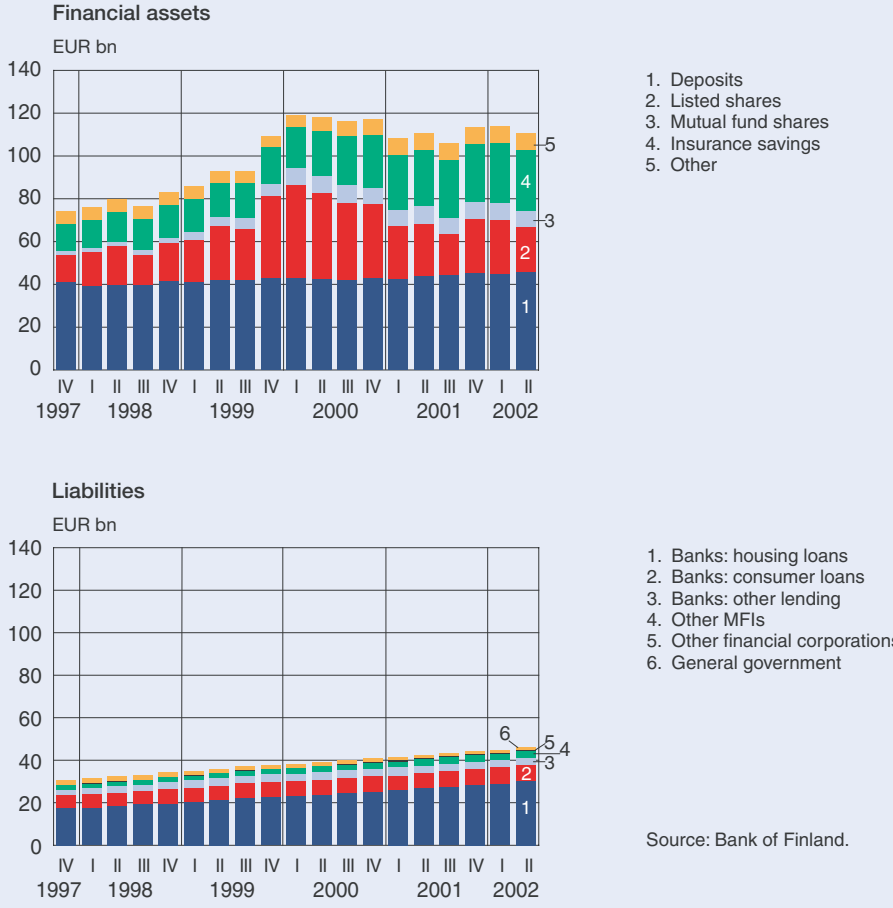
Even though the growth of Finnish households' liabilities has been nearly 10% pa in recent years, the ratio of these to GDP has remained notably below the average for the euro area. And Finnish households' indebtedness has remained low by international standards. The ratio of household liabilities to GDP is 32% compared to 56% for the euro area (Chart 1).

Finnish nonfinancial corporations' liabilities exceed euro area average

Improved profitability enabled Finnish nonfinancial corporations to strengthen their financial position in the latter half of the 1990s. Their gross savings have grown to more than 15% of GDP, which is considerably above the euro area average. Using both equity and debt finance, Finnish companies have increasingly invested abroad, mainly in the form of direct investment. Companies' gross domestic investment has in contrast remained fairly stable, having exceeded 13% of GDP only in the last couple years.

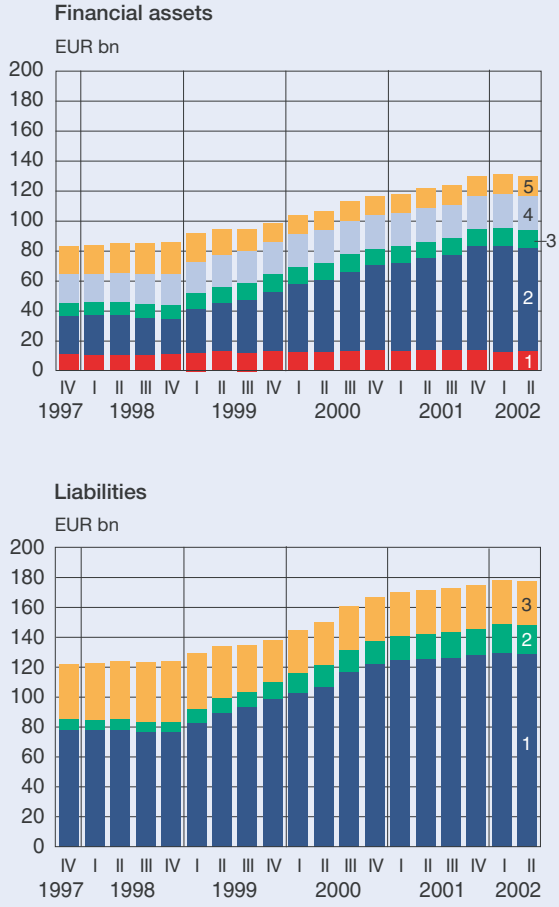
A similar situation seems to prevail across the euro area. Gross savings and investment have recorded

Chart 2.
Financial assets and liabilities of households and non-profit institutions (excl. housing corporation shares)



Source: Bank of Finland.

Chart 3.
Financial assets and liabilities of nonfinancial corporations (excl. shares)



1. Deposits
2. Loans
3. Securities other than shares
4. Trade credits
5. Other assets

1. Loans
2. Securities other than shares
3. Other liabilities

Source: Bank of Finland.

steady development whereas debt finance and share issuance surged over the period 1998–2001 and share holdings and investments in financial instruments increased. Gross savings of euro area nonfinancial corporations have amounted to less than 10% of GDP in recent years, while gross investment has been on a par with that in Finland, ie about 11–12% of GDP.[3]

Finnish nonfinancial corporations have accumulated financial assets at a fairly steady rate. Their shareholdings fell in 2000 by 50%, from EUR 23 billion, but in the financial market the impact was minor, since companies' total holdings of quoted shares is small enough that movements in their prices do not drive financial asset holdings. Companies' total financial assets amounted to just over 100% of GDP in June 2002 (Chart 3).

According to the financial accounts, Finnish nonfinancial corporations' indebtedness is notably higher than in any other euro area country. This is due to the high market value of companies' liabilities that are classified as equity capital. However, for analytical purposes it is more useful to look at companies' repayable debt. This too is higher in Finland than in the euro area on average. At the end of 2001, repayable debt amounted to 130% of GDP for Finland compared to 74% for the euro area as whole.

The high debt ratio is due partly to the inclusion of inter-company lending. This is a notable item for

[3] Data on savings, investment and acquisitions of financial assets by euro area households and companies are published in the ECB Monthly Bulletin, statistics section, table 6.2.

Finland, amounting to 50% of GDP. However, cross-country comparisons are problematic, as statistical practice may, despite harmonisation, vary greatly from country to country. Another important reason for the high debt ratio is that a few Finnish companies are very large relative to the economy as a whole and operate mainly abroad. Big companies may need – by Finnish standards – substantial amounts of debt financing.

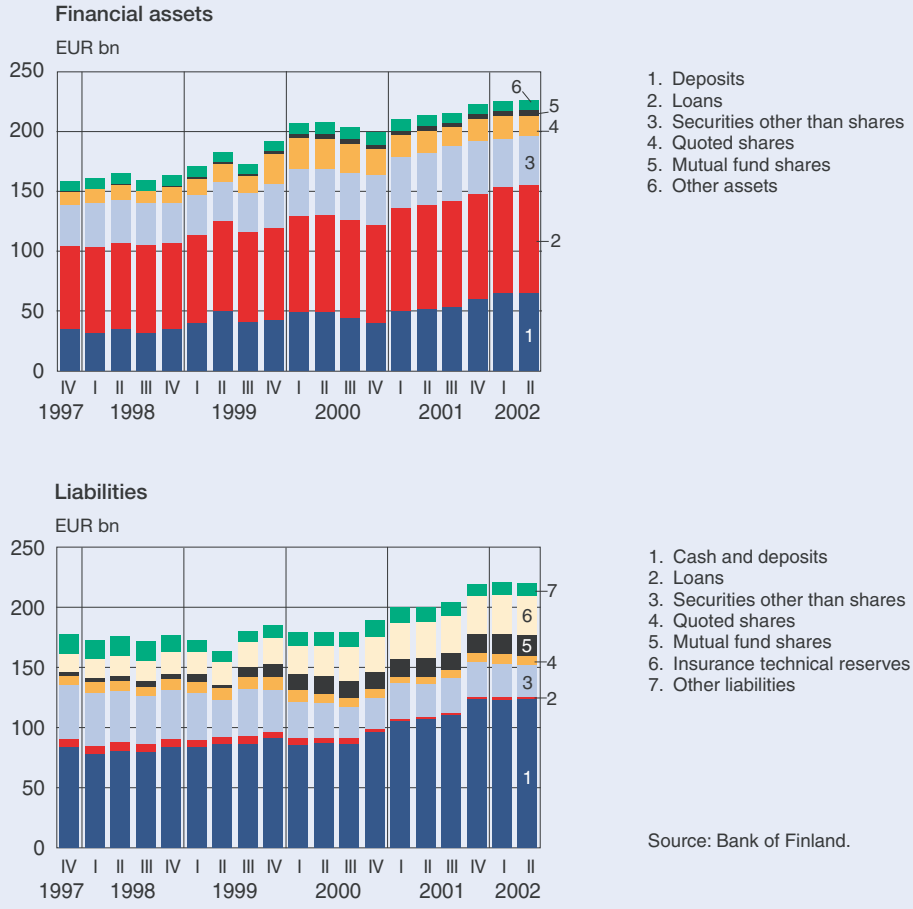
Companies' repayable debt increased substantially in 1999 and 2000, in connection with their financing of foreign investments. The amount of debt-type loans is highest, but bond financing has also increased marginally. Other liabilities, on the other hand, have decreased slightly.

Deposit banks lead in financial intermediation

The asset breakdown of financial corporations shows the forms of their financial intermediation in the domestic and foreign sectors. Liabilities, on the other hand, indicate mainly how these institutions have financed their lending and other investment activities. It is useful to separate deposit banks and insurance corporations among the financial corporations, because these differ in respect of both investment and funding activities.

Deposit banks account for some 60% of total financial assets of all financial corporations and insurance corporations for 16%. This leaves 24% for

Chart 4.
Financial assets and liabilities of financial corporations (excl. unquoted shares)



Source: Bank of Finland.

other financial corporations. Of total sector financial assets, 33% comprises lending to the public. The second-ranking item is deposits, the bulk of which is held abroad. Securities other than shares account for almost 20% of total financial assets, quoted shares for nearly 10%, and mutual fund shares for about 2% (Chart 4).

Of total liabilities of financial corporations, some 25% is in deposits held by the public. If deposits held by monetary financial institutions, the central government, and nonresidents are included in deposits, these account for more than 40% of total liabilities of financial corporations. Insurance technical reserves account for about 15% of total liabilities and securities other than shares for 12%.

7 February 2003

Key words: financial accounts, saving, household assets and liabilities, corporate indebtedness

Table. Financial assets and liabilities, EUR bn

		Households (incl. non-profit institutions)										
		Financial assets (excl. housing corporation shares)						Liabilities				
		Deposits	Quoted shares	Mutual fund shares	Insurance savings	Other	Total	Banks	Other MFIs	Other financial corporations	General government	Total
1997	IV	41.1	13.0	1.5	12.6	6.0	74.2	26.2	2.1	0.3	2.3	30.8
1998	I	39.2	16.2	1.8	13.2	6.0	76.3	27.0	2.1	0.3	2.3	31.6
	II	40.1	17.9	2.1	13.9	6.0	79.9	27.9	2.1	0.3	2.2	32.5
	III	39.8	14.0	2.4	14.5	5.9	76.6	28.5	2.1	0.3	2.1	33.0
	IV	41.6	17.6	2.6	15.2	5.9	82.9	29.9	2.3	0.3	2.0	34.5
1999	I	41.3	19.7	3.4	15.7	5.7	85.8	30.5	2.2	0.3	1.8	34.9
	II	42.1	25.3	4.1	16.2	5.5	93.1	31.7	2.4	0.2	1.7	36.0
	III	42.2	23.9	4.9	16.7	5.2	92.8	32.8	2.4	0.2	1.6	37.1
	IV	43.3	38.0	5.6	17.2	5.0	109.1	33.4	2.6	0.2	1.6	37.8
2000	I	42.8	43.9	7.7	19.1	5.6	119.0	33.8	2.5	0.3	1.5	38.2
	II	42.9	39.7	8.1	21.1	6.2	118.0	34.5	2.7	0.4	1.5	39.0
	III	42.3	35.9	8.3	23.0	6.8	116.3	35.4	2.8	0.5	1.5	40.1
	IV	43.2	34.4	7.5	24.9	7.4	117.3	35.9	2.8	0.6	1.4	40.8
2001	I	42.7	24.6	7.5	25.6	7.5	108.0	36.7	2.8	0.6	1.4	41.5
	II	44.1	24.1	8.5	26.2	7.7	110.6	37.6	3.0	0.6	1.3	42.5
	III	44.4	19.2	7.6	26.8	7.9	106.0	38.6	3.0	0.6	1.3	43.5
	IV	45.6	25.2	7.6	27.4	7.9	113.7	39.5	3.1	0.6	1.2	44.4
2002	I	45.0	25.1	8.1	28.0	7.8	114.1	40.0	3.1	0.6	1.2	44.9
	II	45.8	21.1	7.4	28.6	7.8	110.7	41.1	3.3	0.6	1.2	46.2

Non-financial corporations

		Financial assets							Liabilities				
		Deposits	Loans	Securities other than shares	Quoted shares	Trade credits	Other assets	Total	Loans	Securities other than shares	Quoted shares	Other liabilities	Total
1997	IV	11.6	25.4	8.7	9.2	19.0	18.2	92.2	78.3	7.0	60.4	36.4	182.2
1998	I	11.0	26.5	8.8	10.9	18.5	18.9	94.6	77.9	7.3	80.8	37.5	203.5
	II	11.2	26.1	8.9	14.9	19.2	19.5	99.8	78.4	6.9	96.9	38.5	220.6
	III	11.1	24.7	9.1	9.2	20.0	20.1	94.2	76.7	6.7	77.7	39.5	200.6
	IV	11.6	23.4	9.2	14.3	20.6	20.8	99.8	76.5	7.1	122.8	40.6	247.0
1999	I	12.1	29.7	10.2	15.8	20.9	19.1	107.8	82.6	9.2	149.0	37.4	278.2
	II	13.2	32.5	10.7	19.6	21.4	16.8	114.2	89.6	10.1	176.5	34.2	310.4
	III	12.1	35.4	11.3	19.0	21.5	14.5	113.8	93.3	10.4	180.5	31.1	315.3
	IV	13.5	39.2	12.1	20.1	21.7	12.3	118.9	98.4	11.7	339.5	27.9	477.5
2000	I	13.0	44.9	11.8	23.2	21.8	12.5	127.2	102.8	13.1	383.4	28.3	527.6
	II	13.0	47.8	11.5	17.3	22.1	12.3	124.0	106.9	14.4	350.1	28.6	500.1
	III	13.3	53.3	11.5	16.4	22.4	12.8	129.7	116.9	14.8	304.1	29.0	464.7
	IV	14.2	56.8	10.9	16.3	22.2	12.3	132.7	122.2	15.1	306.0	29.3	472.7
2001	I	13.5	59.0	10.9	12.6	22.3	12.2	130.5	124.7	16.0	194.5	29.1	364.3
	II	14.6	60.8	10.9	13.5	22.4	12.8	134.9	125.4	17.0	193.0	29.0	364.4
	III	14.3	63.1	11.3	11.8	22.4	13.0	135.8	126.0	17.3	141.9	28.9	314.1
	IV	14.6	68.9	11.1	11.9	22.6	13.2	142.2	127.8	17.5	206.8	28.8	380.9
2002	I	13.1	70.9	11.4	12.3	22.6	13.2	143.6	130.9	18.8	189.1	29.3	368.2
	II	13.5	68.9	11.5	11.6	22.6	13.2	141.3	130.4	18.9	141.0	29.3	319.6

Financial corporations

		Financial assets							Liabilities							
		Deposits	Loans	Securities other than shares	Quoted shares	Mutual fund shares	Other assets	Total	Cash and deposits	Loans	Securities other than shares	Quoted shares	Mutual fund shares	Insurance technical reserves	Other liabilities	Total
1997	IV	35.2	69.4	35.8	10.7	0.3	8.4	159.7	84.0	6.8	44.2	8.2	3.4	14.6	16.3	177.4
1998	I	32.0	72.0	35.2	12.3	0.4	8.7	160.6	77.9	6.7	43.0	8.9	3.8	15.4	15.1	170.9
	II	34.9	72.7	36.6	15.5	0.6	8.9	169.0	81.1	6.8	43.4	9.0	4.2	16.2	16.1	176.8
	III	32.1	72.9	35.5	12.1	0.7	9.0	162.4	79.5	6.7	40.3	8.1	4.7	17.0	15.8	172.1
	IV	34.8	72.5	34.8	14.1	0.8	9.1	166.1	84.1	6.5	40.7	8.9	4.9	17.8	13.9	176.8
1999	I	40.1	73.2	33.4	15.4	1.4	8.4	171.9	83.6	6.4	38.2	9.1	6.3	18.7	9.5	171.7
	II	50.2	75.2	32.0	17.6	1.7	8.2	184.8	86.1	6.2	36.9	9.8	7.8	19.5	9.0	175.4
	III	40.9	75.7	31.7	17.5	2.0	7.8	175.6	86.8	6.1	38.7	9.6	9.0	20.4	8.8	179.5
	IV	42.4	77.0	37.5	27.4	2.5	8.3	195.1	91.0	5.8	34.6	11.1	10.9	21.2	10.0	184.5
2000	I	49.4	80.3	38.8	29.3	3.2	9.0	210.1	85.8	5.2	30.2	9.8	13.7	23.3	11.1	179.2
	II	49.4	80.8	38.9	28.7	3.7	9.4	210.8	87.0	4.8	28.3	7.5	14.6	25.5	11.3	179.1
	III	44.5	81.6	39.5	27.9	3.8	9.8	207.1	86.4	4.5	25.7	7.3	14.9	27.6	12.5	179.0
	IV	39.8	82.6	41.4	26.7	3.4	10.3	204.3	95.8	3.3	25.5	7.3	13.8	29.8	13.4	188.9
2001	I	50.3	86.2	42.7	22.6	3.5	9.4	214.7	105.2	1.7	30.3	4.9	14.5	30.1	13.3	199.9
	II	51.4	87.8	42.9	23.5	3.9	8.8	218.3	107.1	1.6	27.4	5.5	15.7	30.5	12.0	199.9
	III	53.6	88.6	46.1	20.4	3.5	8.1	220.3	110.1	1.6	29.0	6.6	14.8	30.9	11.1	204.1
	IV	59.6	88.7	43.8	25.5	4.0	7.6	229.1	123.8	1.5	29.0	7.6	15.9	31.3	10.0	218.9
2002	I	65.3	90.3	39.9	27.0	4.5	7.8	234.9	124.9	1.8	27.6	8.2	16.9	32.6	10.0	222.0
	II	65.4	91.6	40.2	26.3	4.6	7.8	235.8	124.1	1.7	27.5	7.1	16.8	32.6	10.0	219.7

Source: Bank of Finland.

2003 parliamentary elections

Parliamentary elections were held on 16 March 2003. Of the over 4.0 million persons eligible to vote, 69.7% voted (68.3% in the last parliamentary elections).

The following table shows the percentage distribution of votes in 2003 and 1999.

	2003	1999
Centre Party	24.7	22.4
Social Democratic Party	24.5	22.9
National Coalition Party	18.6	21.0
Left Alliance	9.9	10.9
Green League	8.0	7.3
Christian Democrats[1]	5.3	4.2
Swedish People's Party	4.6	5.1
True Finns	1.6	1.0
Others	2.9	5.3
Total	100.0	100.0

The distribution of seats in Parliament is as follows:

Centre Party	55	48
Social Democratic Party	53	51
National Coalition Party	40	46
Left Alliance	19	20
Green League	14	11
Swedish People's Party	8	11
Christian Democrats[1]	7	10
True Finns	3	1
Others	1	2
Total	200.0	200.0

The new Parliament assembled for its first session on 25 March 2003.

[1] 1999, Christian League.

Commemorative silver coin in honour of Anders Chydenius

The Ministry of Finance has minted EUR 10 commemorative silver coins in honour of Anders Chydenius (1729–1803). The coin was struck by the Mint of Finland Ltd and has been on sale since 26 February 2003. Chydenius was one of the most distinguished politicians of the era of Swedish rule in Finland. He served as a priest and was a member of the estate. Best known as a defender of freedom of trade and industry, Chydenius is referred to the 'Adam Smith of the North'.

The commemorative coin is composed of a silver compound, measures 38.6 mm in diameter, and weighs 27.4 grams. The total number of coins to be struck is 60,000, some of which will be of proof-quality, which includes a gloss surface with matte figures. The selling price of the proof-quality coin is EUR 54, and the normal coin sells for EUR 32. The coin was designed by the sculptor Tero Lounas. The upper part of the observe of the coin has twelve euro-stars in a bow-shaped figure that includes the embossed text ANDERS CHYDENIUS. On the lower right is an open book and on the left the embossed text 1729–1803. On the reverse of the coin are stylised old buildings, among which the number 10 indicating the value of the coin. At the lower left is the word EURO. This picture area is surrounded by the text SUOMI 2003 on the left and FINLAND on the right.

Eurosystem monetary policy instruments
13 March 2003

Key interest rates

The main refinancing operations are the principal monetary policy instrument used by the Eurosystem[1]. Changes in the interest rate applied in the main refinancing operations signal the stance of Eurosystem monetary policy and have a major impact on the shortest money market rates. From the start of 1999 to June 2000 the main refinancing operations of the Eurosystem were conducted via fixed rate tenders. At its meeting on 8 June 2000 the ECB Governing Council decided that, starting with the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders, using the multiple rate auction procedure. The Governing Council also decided to set a minimum bid rate for these operations. The minimum bid rate was initially 4.25%, the same level as applied in the previous fixed rate tender operations. Since then, the minimum bid rate has been changed eight times. Effective 7 March 2003, the minimum bid rate is 2.50%. In the new procedure, the minimum bid rate signals the monetary policy stance, which previously was indicated by the rate applied to fixed rate tenders.

The Eurosystem uses the rates on its standing facilities as a corridor for overnight market interest rates. The interest rates on the marginal lending facility and deposit facility are set separately by the Eurosystem.

Effective 7 March 2003, the interest rate on the Eurosystem marginal lending facility is 3.50% and the overnight interest rate on the deposit facility 1.50%.

Open market operations

Open market operations play an important role in Eurosystem monetary policy. They are used for the purposes of steering interest rates, managing market liquidity, and signalling the stance of monetary policy. Open market operations are normally executed by national central banks on the initiative of the ECB. Open market operations can be divided into four categories:

1) The *main refinancing operations* are weekly liquidity-providing operations executed by national central banks via standard tenders with two-week maturity. They play a pivotal role in pursuing the purposes of Eurosystem open market operations and provide the bulk of refinancing to the financial sector.

2) The *longer-term refinancing operations* are liquidity-providing standard tender operations with monthly frequency and three-month maturity. These operations are used to provide counterparties with additional longer-term refinancing. These operations are not intended for market signalling and hence they are normally executed on the basis of variable-rate tenders.

3) *Fine-tuning operations* are executed on an ad hoc basis in order to smooth interest rate movements caused by unexpected changes in market liquidity. Fine-tuning operations are executed by national central banks primarily as reverse transactions, but they can also take the form of outright transactions, foreign exchange swaps or collection of fixed-term deposits. Fine-tuning operations are executed via quick tenders or bilateral procedures. Under exceptional

[1] The European System of Central Banks (ESCB) comprises the European Central Bank (ECB) and the national central banks of the EU member states. The Eurosystem is composed of the ECB and the national central banks of the member states participating in Stage Three of Economic and Monetary Union. The Eurosystem's supreme decision-making body is the Governing Council of the ECB, which comprises the six members of the Executive Board of the ECB and the governors of the twelve national central banks in the Eurosystem.

circumstances and by decision of the ECB Governing Council, the ECB may execute fine-tuning operations in a decentralised manner.

4) *Structural operations* are executed with the aim of adjusting the structural position of the Eurosystem vis-à-vis the financial sector. Structural operations can be executed through reverse transactions, outright transactions or the issuance of ECB debt certificates.

Standing facilities

The standing facilities are intended to limit excessive movements in overnight interest rates by providing or absorbing overnight liquidity and to signal the general stance of monetary policy. Two standing facilities are available: the marginal lending facility and the deposit facility. Counterparties can use the marginal lending facility to obtain overnight liquidity from national central banks against eligible assets. The interest rate on the marginal lending facility provides a ceiling for the overnight market interest rate. Counterparties can use the deposit facility to make overnight deposits at national central banks. The interest rate on the deposit facility provides a floor for the overnight market interest rate. Under normal circumstances, there are no quantitative limits on access to the standing facilities.

Minimum reserve system

The Eurosystem minimum reserve system applies to credit institutions in the euro area and is used primarily for stabilising money market interest rates and creating (or enlarging) a structural liquidity shortage. The reserve base for a credit institution is defined in terms of liability items on its balance sheet. The reserve base includes deposits, debt securities issued and money market paper. However, liabilities vs other institutions subject to the minimum reserve system are not included in the reserve base. Liabilities included in the reserve base are subject to a 2% or zero reserve ratio. Liabilities included in the reserve base and to which a zero reserve ratio is applied comprise deposits with an agreed maturity of over two years, repos, and debt securities issued with an agreed maturity of over two years.

In order to pursue the aim of stabilising interest rates, the Eurosystem minimum reserve system enables institutions to make use of averaging provisions. Compliance with the reserve requirement is determined on the basis of an institution's average daily reserve holdings over a one-month maintenance period. Institutions' holdings of required reserves are remunerated at the interest rate of the main refinancing operations. When the main financing operations are conducted as variable rate tenders, the interest rate on minimum reserves is determined on the basis of the marginal interest rates applied in the tenders held during the maintenance period in question.

With effect from the start of 2001, the group of institutions in Finland subject to the minimum reserve requirement was extended to include all institutions, in addition to deposit banks, that are authorised to operate as credit institutions. The purpose of this change was to bring the definition of institutions subject to the minimum reserve requirement into line the practice applied in other euro area countries. A list of the institutions subject to the Eurosystem minimum reserve requirements is available on the ECB website (https://mfi-assets.ecb.int).

Counterparties to monetary policy operations

Credit institutions subject to Eurosystem minimum reserve requirements may, in general, access Eurosystem standing facilities and participate in the Eurosystem's main refinancing operations and longer-term refinancing operations. The Eurosystem has limited the group of counterparties for fine-tuning operations and structural operations to counterparties that are active players in the money market. For outright transactions, no restrictions are placed on the group of counterparties. For foreign exchange swaps, the counterparties must be counterparties for foreign exchange intervention operations who are active players in the foreign exchange market.

Assets eligible for monetary policy operations

Under the ESCB/ECB Statute, all Eurosystem credit operations must be based on adequate collateral. The

Eurosystem accepts a wide range of securities, issued by both public sector and private sector entities, as underlying assets for its operations. For purposes internal to the Eurosystem, eligible assets are divided into two categories. 'Tier one' consists of marketable debt instruments fulfilling uniform euro area-wide eligibility criteria specified by the ECB. 'Tier two' consists of assets, both marketable and nonmarketable, that are of particular importance for national financial markets and banking systems and for which eligibility criteria are established by the national central banks and approved by the ECB. Both tier one and tier two assets may be used as collateral for Eurosystem monetary policy operations. A list of eligible assets is available on the ECB's website (https://mfi-assets.ecb.int). More detailed information on Eurosystem monetary policy instruments is posted on the Bank of Finland's website (http://www.bof.fi/eng/2_rahapolitiikka/index.stm).

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Abstracts

Series A

Suomen rahoitusmarkkinat 2002 (Finnish financial markets 2002)

Heikki Koskenkylä (ed.)
A:102

■ Key words: financial markets, integration, euro, infrastructure, conglomeration, insurance markets, regulation and supervision

The Finnish – and international – financial markets have been under enormous pressure for change in recent years. In the European Union, increasing progress has been made at integrating the financial markets. This progress has been abetted since the mid-1990s by harmonisation of financial legislation, dismantlement of regulation, new financial products, and technological progress. Cross-border trade in financial services has begun to surge, albeit growth rates differ for the various sectors. Introduction of the euro – first as account money, with notes and coins added at the start of 2002 – has spurred integration. Competition has tightened, while the borders between different sectors – banking, securities markets, insurance – have narrowed.

Progress in integration, new products, technological progress, and sector crossovers have fomented considerable pressure for change in financial and insurance legislation and supervision. For the banking sector, cross-border supervision of financial institutions presents a huge challenge.

Investors and those in need of financing benefit from tighter competition because financial services become more diversified, quality improves, and prices fall. From the perspective of the Finnish investor, the euro has brought a manifold increase in investment outlets free of exchange rate risk, which has facilitated the spreading of risks. In recent years, foreign investors have become much more active in the Finnish financial markets, due to the liquidity of Finnish debt instruments and availability of financing.

The structure of the Finnish banking sector has changed substantially, partly as a result of the banking crisis of the early 1990s and subsequent integration and technological advancement. The changes have been significant also in the insurance sector, and Finland has experienced the creation of 'financial conglomerates' that produce and sell a wide variety of financial services.

The financial infrastructure, ie payment and settlement systems and exchanges, has also been in a continual process of change since the mid-1990s. Finland's membership in the European System of Central Banks and introduction of the euro have accelerated the restructuring as well as technological progress.

Discussion papers

Väestön vanheneminen, työmarkkinat ja julkisen talouden näkymät (Population ageing, labour markets and the outlook for public finances)
Helvi Kinnunen
28/2002

■ Key words: population ageing, tax rate, pension reform, efficiency of public sector

Keeping public finances on a sustainable foundation while the population ages is clearly a problem in Finland, as in many other western countries. The shrinking of the working-age population, ageing of the labour force, and growth in the number of very old persons form a difficult combination vis-à-vis sustainable public finances. An age structure that is changing in unfavourable ways has long-run consequences for balance of public finances and room for fiscal policy.

With structural unemployment lodged at a high level and the average age of the labour force trending upward in the coming years, the financial foundation for public services is on the decline. Calculations extending the Bank of Finland's 2004-horizon forecast indicate that if definite changes in retirement rates are not forthcoming, the pressure for tax tightening in the near future will be conspicuous. The projections show that pension reform alone will not dispel the pressure for tax increases. But if, in addition to pension reform, the productivity of service production in the public sector is boosted, ageing will not necessarily lead to tax tightening.

Adaptive learning and monetary policy design
George W. Evans – Seppo Honkapohja
29/2002

■ Key words: commitment, interest rate setting, adaptive learning, stability, determinacy, expectations shocks

We review the recent work on interest rate setting, which emphasizes the desirability of designing policy to ensure stability under private agent learning. Appropriately designed expectations based rules can yield optimal rational expectations equilibria that are both determinate and stable under learning. Some simple instrument rules and approximate targeting rules also have these desirable properties. We take up various complications in implementing optimal policy, including the observability of key variables and the required knowledge of structural parameters. An additional issue that we take up concerns the implications of expectation shocks not arising from transitional learning effects.

Payment systems efficiency, policy approaches, and the role of the central bank
Tanai Khiaonarong
1/2003

■ Key words: payment systems, efficiency, cost, revenues, innovations

Central bank spending on the operation of interbank funds transfer systems may range from below one million to nearly a billion US dollars annually. This paper examines how such costs are incurred and recovered to pursue payment systems efficiency in different countries and under alternative policy approaches. The key findings are as follows. First, strong scale economy effects were found, with unit costs comparatively lower in retail than large-value payment services, while subsidisation was also evident in a survey of thirty-one payment systems. Second, the minimalist approach was more efficiency enhancing than the competitive and public service policy alternatives, due to higher cost-reducing effects, stronger private sector involvement, and the avoidance of the central bank's conflicting role as regulator and service provider in the payments system. And third, regulatory and financial innovations, in addition to technological means, are found to be equally important policy tools that the central bank may adopt to improve the technical and economic efficiency of payment systems.

Do networks in the stock exchange industry pay off? European evidence
Iftekhar Hasan – Heiko Schmiedel
2/2003

■ Key words: stock exchanges, network externalities, remote access, Europe

The economic theory of network externalities provides the rationale for this paper, which investigates whether adoption of network strategies in European stock exchanges creates additional value in the provision of trading services. Using unbalanced panel data from all major European exchanges over the period 1996–2000, the paper examines empirically the presence of network effects on the liquidity, growth, and efficiency of the exchanges; the transaction cost of trades; and the cost of exchange operations. The evidence shows that adopting a network strategy is significantly associated with higher liquidity, growth and efficiency in the sample markets. Moreover, a network strategy helps to reduce transaction costs of trades as well as operational costs for stock exchanges.

Aasian, Venäjän ja Turkin rahoituskriisien vertailua (Comparison between Asian, Russian and Turkish financial crises)
Johanna Lukkarila
3/2003

■ Key words: currency crisis, financial crisis, emerging markets, Asia, Russia, Turkey

Since the start of the 1990s, several countries have abandoned fixed-but-adjustable exchange rate regimes. The tendency towards floating exchange rate regimes, or alternatively monetary unions, has given rise to a debate on the disappearance of pure currency crises, and the literature has focused more on general financial crises and large-scale crises of financial systems. The Asian crisis in particular generated much new research that combines currency and banking crises. The currency crisis literature has been criticised on the basis that crisis models are revised or new ones developed after every major crisis episode. Because of crisis-specific features, it is unlikely that a single model would be capable of encompassing the whole character of all crises.

The paper discusses the relevance of the new currency and financial crisis theories, ie third generation theories, for the crisis episodes in Asia. It also compares the theories and Asian events to financial crises in Russia and Turkey. The paper shows that the traditional models are still relevant, but to some extent they fall short in explaining the most recent crises of the 1990s, which had features of both currency and financial crises.

Simulation-based stress testing of banks' regulatory capital adequacy
Samu Peura – Esa Jokivuolle
4/2003

■ Key words: Basel II, Pillar 2, bank capital, stress tests, procyclicality

Banks' holding of reasonable capital buffers in excess of minimum requirements could alleviate the procyclicality problem potentially exacerbated by the rating-sensitive capital charges of Basel II. Determining the required buffer size is an important risk management issue for banks, which the Basle Committee (2002) suggests should be approached via stress testing. We present here a simulation-based approach to stress testing of capital adequacy where rating transitions are conditioned on business-cycle phase and business-cycle dynamics are taken into account. Our approach is an extension of the standard credit portfolio analysis in that we simulate actual bank capital and minimum capital requirements simultaneously. Actual bank capital (absent mark-to-market accounting) is driven by bank income and default losses, whereas capital requirements within the Basel II framework are driven by rating transitions. The joint dynamics of these determine the necessary capital buffers, given bank management's specified confidence level for capital adequacy. We provide a tentative calibration of this confidence level to data on actual bank capital ratios, which enables a ceteris-paribus extrapolation of bank capital under the current regime to bank capital under Basel II.

Economic evaluation of bank exit regimes in US, EU and Japanese financial centres
Peik Granlund
5/2003

■ Key words: evaluation, bank, regulation, supervision, reorganisation, liquidation

This paper evaluates bank exit regimes in selected financial centres using econometric methods. The focus is on bank exit regimes applicable to commercial banks in New York, London, Frankfurt, Helsinki and Tokyo in 1998–2002. Bank exit regimes are studied from the perspective of bank creditors and bank shareholders. In order to apply econometric methods, the exit regimes are indexed and then evaluated by comparing them with market indicators that reflect the interests of bank creditors and shareholders. These market indicators comprise bank refinancing costs and bank growth rates. In other words, two specific questions are addressed: (1) Do differences in bank exit regimes of significance to bank creditors explain differences in bank refinancing costs? (2) Do differences in bank exit regimes significant to bank shareholders explain differences in bank growth? The study shows that in those financial centres where the probability of bailout is higher, refinancing costs for banks are lower.

Equilibrium in financial markets with adverse selection
Tuomas Takalo – Otto Toivanen
6/2003

■ Key words: financial market efficiency, adverse selection, financial contracts, creation of firms.

We study a financial market adverse selection model where all agents are endowed with initial wealth and choose to invest as entrepreneurs or financiers, or not to invest. We show that often a lack of outside finance leads to the emergence of financial markets where availability of outside finance leads to autarky. We find that i) there exist Pareto-efficient and inefficient equilibria; ii) adverse selection has more severe consequences for poorer economies; iii) increasing initial wealth may cause a shift from Pareto-efficient to inefficient equilibrium; iv) increasing the proportion of agents with positive NPV projects causes a shift from inefficient to efficient equilibrium; v) equilibrium financial contracts are either equity-like or 'pure' debt contracts; vi) agents with negative (positive) NPV projects earn rents only in (non-)wealth-constrained economies; vii) agents earn rents only when employing pure debt contracts; and viii) removing storage technology destroys the only Pareto-efficient equilibrium in non-wealth-constrained economies. Our model enables analysis of various policies concerning financial stability, the need for sophisticated financial institutions, development aid, and the promotion of entrepreneurship.

BOFit Discussion papers

Democracy and growth: An alternative empirical approach
Jian-Guang Shen
13/2002

■ Key words: Democracy, economic growth

This paper proposes a 'before-and-after' approach to empirical examination of the relationship between democracy and growth. Rather than using the commonly used cross-country regression method, this paper compares the economic performances of forty countries before and after they became democracies or semi-democracies sometime within the last forty years. The empirical evidence indicates that an improvement in growth performance typically follows the transformation to democracy. Moreover, growth under democracy appears to be more stable than under authoritarian regimes. Interestingly, wealthy countries often experience declines in growth after a democratic transformation, while very poor nations typically experience accelerations in growth. Growth change appears to be negatively related to the initial savings ratio and positively related to the export ratio to GDP. Partial correlation between growth change and primary school or secondary school enrollments and the ratio of government expenditure to GDP is not identified.

Do efficient banking sectors accelerate economic growth in transition countries?
Tuuli Koivu
14/2002

- Key words: financial sector, transition economies, economic growth, panel data

The relationship between financial sector and economic growth in transition countries has been largely ignored in the earlier empirical literature. In this paper, we analyse the finance-growth nexus using a fixed-effects panel model and unbalanced panel data from 25 transition countries during the period 1993-2000. We measure the qualitative development of banking sectors using the margin between lending and deposit interest rates. Our second variable for the level of financial sector development is the amount of bank credit allocated to the private sector as a share of GDP. According to our results, the interest rate margin is significantly and negatively related to economic growth. This outcome is in line with theoretical models and has important policy implications. On the other hand, a rise in the amount of credit does not seem to accelerate economic growth. The main reasons behind this result could be the numerous banking crises the transition countries have experienced and the soft budget constraints that are still prevalent in many transition countries. Due to these specific characteristics, the growth in credit has not always been sustainable and in some cases it may have led to a decline in growth rates.

Equilibrium exchange rates in transition countries: Evidence from dynamic heterogeneous panel models
Byung-Yeon Kim – Iikka Korhonen
15/2002

- Key words: exchange rates, transition economies, dynamic heterogeneous panel estimations

We use a dynamic heterogeneous panel model to estimate real equilibrium exchange rates for advanced transition countries. Our method is based on out-of-sample estimations from middle-income and high-income countries, and we use a pooled mean group estimator. We find that exchange rates have converged in recent years in five transition countries (Czech Republic, Hungary, Poland, Slovakia, and Slovenia) with real equilibrium exchange rates expressed in US dollars. However, we also find that the currencies of the transition countries studied are substantially overvalued if real effective exchange rates are used.

Some benefits of reducing inflation in transition economies
Monika Blaszkiewicz – Jerzy Konieczny – Anna Myslinska – Artur Radziwil – Przemyslaw Wozniak
16/2002

- Key words: tax system, inflation, savings, Poland, Ukraine

We analyse welfare effects of the interactions between the tax system and inflation in Poland and in Ukraine, using the framework developed by Feldstein (1997, 1999). This approach stresses the fact that inflation increases distortions created by the tax system, in particular distortions to intertemporal saving decisions. We find that the effects are much smaller in the two transition countries than in developed market economies. The reason is that taxation of investment returns is much more limited. Our results suggest that taxes on investment returns should be avoided in any future redesign of the tax system.

Reforms and economic growth in transition economies: Complementarity, sequencing and speed
Karsten Staehr
1/2003

- Key words: economic reforms, growth, principal components, gradualism versus big-bang

Growth regressions have provided important insights into the impact of economic reforms on growth in transition economies. Using principal components to decompose reform variables and construct reform clusters, we address unsettled issues such as the importance of sequencing and reform speed. The results indicate a broad-based reform policy is good

for growth, but so is a policy of liberalisation and small-scale privatisation without structural reforms. Conversely, large-scale privatisation without adjoining reforms, market opening without supporting reforms and bank liberalisation without enterprise restructuring affect growth negatively. Swift reform policies allow transition countries to benefit from higher growth for a longer period of time. The speed of reforms otherwise appears to have only limited effects on short- and medium-term growth.

The dynamics of capital structure in transition economies
Eugene Nivorozhkin
2/2003

■ Key words: capital structure, leverage, dynamic adjustment model, the Czech Republic, Bulgaria

This paper uses a dynamic unrestricted capital structure model to examine the determinants of private companies' target financial leverage and its speed of adjustment in two transition economies, the Czech Republic and Bulgaria. We explicitly model the adjustment of companies' leverage to a target leverage, and this target leverage is itself explained by a set of factors. The panel data methodology combines cross-section and time-series information. The results indicate that the Bulgarian corporate credit markets were less supply-constrained than those of the Czech Republic during the period under investigation. Bulgarian companies adjusted much faster to the target leverage than Czech firms. The speed of adjustment related positively to the difference between target and observed ratios for Bulgarian companies while the relationship was neutral for Czech companies. The conservative policies of Czech banks and exposure control were likely responsible for the slower adjustment among the larger companies while the opposite was true for Bulgarian banks and companies.

Do asymmetric terms of trade shocks affect private savings in a transition economy?
Abdur R. Chowdhury
3/2003

■ Key words: transition, private savings, terms of trade

This paper examines whether terms-of-trade shocks have an asymmetric effect on private savings in transition economies. A simple three-period framework is developed to show that, in the presence of binding credit constraints in bad states of nature, savings rates can be sensitive to favorable movements in the permanent component of the terms of trade. This result contrasts with the prediction of the conventional consumption-smoothing model. Empirical analysis with a dynamic panel model further confirms that while favorable movements in the permanent component of the terms of trade have an asymmetric effect on private savings, the magnitude of the effect is relatively small. The results are robust for alternative estimators, determinants, and country groupings.

Land, climate and population

Finland covers an area of more than 338,000 square kilometres. The total area is slowly increasing because of the steady uplift of the land since the last glacial era. The country shares frontiers with Sweden in the west, Norway in the north and Russia in the east and has a coastline bordered by the Baltic Sea in the south and west. Agricultural land accounts for 6% of the total area, forest and other wooded land for 68% and inland waters for 10%. Located between latitudes 60° and 70° north, Finland has warm summers and cold winters. Helsinki on the south coast has an average maximum temperature of 21° C (70° F) in July and –3° C (25° F) in February.

Finland has a population of 5,194,901 (31 December 2001) and an average population density of 17 per square kilometre. The largest towns are Helsinki, the capital, with 559,718 inhabitants, Espoo 216,836, Tampere 197,774, Vantaa 179,856 and Turku 173,686.

There are two official languages: 93% of the population speaks Finnish as its mother tongue and 5.7% Swedish. There is a small Lapp population in the north. Finnish is a member of the small Finno-Ugrian group of languages, which also includes Estonian and Hungarian.

Form of government

Finland is a parliamentary democracy with a republican constitution. From the twelfth century to 1809 Finland was part of the Kingdom of Sweden. In 1809 Finland was annexed to Russia as an autonomous Grand Duchy with the Tsar as Grand Duke. On 6 December 1917 Finland declared its independence. The republican constitution adopted in 1919 remains essentially unchanged today.

The legislative power of the country is exercised by Parliament and the President of the Republic. The supreme executive power is vested in the President, who is elected for a period of six years. The President for the current term, 1 March 2000 to 1 March 2006, is Ms Tarja Halonen.

Parliament, comprising 200 members, is elected by universal suffrage for a period of four years. Following the parliamentary elections of 1999, the seats of the various parties in Parliament are distributed as follows:

Social Democratic Party 51; Centre Party 48; National Coalition Party 46; Left Alliance 20; Swedish People's Party 12; Green League 11; Christian League 10; True Finns 1; and Reform Group 1.

Of the 18 ministerial posts in the present Government appointed in April 1999, 6 are held by the Social Democratic Party, 6 by the National Coalition Party, 2 by the Left Wing Alliance, 1 by the Swedish People's Party, 2 by the Green League and 1 by an expert with no party affiliation. The Prime Minister is Mr Paavo Lipponen of the Social Democratic Party.

Finland is divided into 452 self-governing municipalities. Members of a municipal council are elected by universal suffrage for a period of four years.

International relations

Finland became a member of the BIS in 1930, the IMF in 1948, the IBRD in 1948, GATT in 1950, the UN in 1955, the Nordic Council in 1955, the IFC in 1956, IDA in 1960, EFTA in 1961, the ADB in 1966, the OECD in 1969, the IDB in 1977, the AfDB in 1982, the MIGA in 1988, the Council of Europe in 1989, the EBRD in 1991 and the EU in 1995.

Citizens of the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden, have enjoyed a common labour market, a passport union and reciprocal social security benefits since the mid-1950s. All the Nordic countries joined the Shengen area on 25 March 2001.

Having abolished most quantitative restrictions on foreign trade in 1957, Finland first took part in European free trade arrangements under the aegis of EFTA in 1961. Finland's free trade agreement with the EEC entered into force in 1974 and agreements for the removal of trade barriers were concluded with several eastern European countries as well. The agreement on the European Economic Area (EEA) between the member countries of EFTA and the European Union came into effect at the start of 1994. Finland became a member of the European Union on 1 January 1995. Finland and ten other EU countries entered Stage Three of EMU in 1999.

The economy

Output and employment. Of the gross domestic product of EUR 118 billion in basic values in 2001, 1.5% was generated in agriculture, hunting and fishing, 1.9% in forestry, 27.7% in industry, 5.9% in construction, 11.6% in trade, restaurants and hotels, 10.8% in transport and communications, 3.9% in finance and insurance, 18.7% in other private services and 17.9% by producers of government services. Of total employment of 2.3 million persons in 2001, 5.6% were engaged in primary production, 27.4% in industry and construction and 67.0% in services.

In 2001 expenditure on the gross domestic product in purchasers' values amounted to EUR 136 billion and was distributed as follows: net exports 8.2% (exports

39.8%, imports – 31.6%), gross fixed capital formation 20.4%, private consumption 49.9% and government consumption 20.8%. Finland's tax ratio (gross taxes including compulsory employment pension contributions relative to GDP) was 45.5%.

Average annual (compounded) growth of real GDP was 4.7% in the period 1950–59, 5.0% in 1960–69, 3.7% in 1970–79, 3.6% in 1980–89 and 1.7% in 1990–99. Finland's GDP per capita in 2001 was USD 23,442.

Foreign trade. EU countries absorb the bulk of Finnish goods exports. In 1998–2002 their average share was 55.4%. Over the same period, Finnish exports to other European countries (including Russia) accounted for 18.4% and to the rest of the world for 26.2%. During the same period the regional distribution of Finnish goods imports was quite similar to that of exports: EU countries accounted for 56.6%, other European countries for 19.5% and the rest of the world for 24.0%.

In 2002 the share of forest industry products in total goods exports was 26.4%, the share of metal and electrical products 54.6% and the share of other goods 19.0%. Raw materials and intermediate goods and energy together accounted for 51.1% of goods imports, capital goods for 22.1% and durable and non-durable consumer goods for 26.8%.

Forest resources. Finland has abundant forest resources but only limited amounts of other raw materials. The growing stock comprises 1,927 million cubic metres, of which 46% is pine, 36% spruce, 15% birch and 3% other broad-leaved species.

According to the National Forest Inventory for 1992–1998, the annual volume increment was about 76 million cubic metres. Over the same period the average annual drain was about 59 million cubic metres.

Finance and banking

Currency. Finland had its own monetary system from 1865 to 1998. The currency unit was the markka (plural markkaa), which was divided into 100 penniä (singular penni). During the last decades of this period the objective of foreign exchange policy was to maintain a fixed exchange rate in relation to a given currency basket. On 8 September 1992 the markka was allowed to float. On 14 October 1996 the markka joined the Exchange Rate Mechanism of the European Monetary System. Since the start of 1999 Finland has participated in the single currency area, in accordance with the Treaty establishing the European Community. The conversion rate for the markka, as confirmed by the Council of the European Union on 31 December 1998, is 5.94573. With effect from the start of 1999, the currency unit used in Finland is the euro, which is divided into 100 cent. The changeover to euro cash was effected in Finland, as in the whole euro area, at the start of 2002, and the markka ceased to be legal tender as of 1 March 2002.

The Central Bank. The two new laws adopted in 1997 and 1998 make Finnish legislation compatible with the requirements of the Treaty establishing the European Community and the Statute of the European System of Central Banks and the European Central Bank. The latter law, the new Act on the Bank of Finland, integrates the Bank of Finland into the ESCB. In performing the tasks of the ESCB, the Bank of Finland acts in accord with guidelines and instructions issued by the ECB. Under the Treaty, the primary objective of the Bank of Finland is to maintain price stability. The new Act did not change the division of responsibilities between the Parliamentary Supervisory Council and the Board. The tasks of the Council are connected with supervision of the Bank's administration and operations, administrative decisions and certain other responsibilities. The Board of the Bank of Finland comprises the Chairman (Governor) and a maximum of five (currently three) other members, all of whom are appointed by the President of the Republic upon a proposal of the Council. The Chairman of the Board is appointed for a seven-year term and the other members of the Board each for a five-year term. The Bank of Finland has a head office in Helsinki and four branch offices in other towns.

Other banks (31 December 2002). Finland has three major groups of deposit banks with a total of about 1,572 branches. In addition there are five smaller banks and banking groups. The commercial banks have a total of 23 foreign branches, subsidiaries and associate banks and 7 representative offices abroad. There are 40 savings banks, a group of cooperative banks (243) and 42 local cooperative banks. In addition, 8 foreign banks have branches and 4 foreign banks have representative offices in Finland.

Financial markets. The total stock of domestic credit amounted to EUR 120.9 billion at end-September 2002 and was broken down by lender group as follows: deposit banks 63%; insurance companies 4%; pension insurance institutions 12%; other credit institutions 11%; central and local governments and social security funds 10%.

In the money market, the total value of instruments outstanding was about EUR 26.5 billion at end-December 2002; bank certificates of deposit accounted for 57% of the total and Treasury bills, commercial paper and local authority paper for the rest.

At end-December 2002 there were 107 companies on the main list, 28 on the investors' list and 15 on the NM list of the HEX. At end-December 2002 total market capitalisation was EUR 150.7 billion for the main list, EUR 0.39 billion for the investors' list and EUR 0.29 billion for the NM list. Domestic bonds and debentures in circulation at end-December 2002 amounted to EUR 49.3 billion; government bonds accounted for 81% of the total. Share turnover on the HEX amounted to EUR 188.7 billion in January-December 2002.

VISITING SCHOLARS PROGRAMME

BANK OF FINLAND

***The Bank of Finland**, the national central bank, has about 670 employees, some 30 of whom are involved in research. The Bank is located in Helsinki.*

The Bank welcomes applications from foreign and Finnish scholars for a post under its Visiting Scholars Programme at the Research Department. Scholarships for six months are available for faculty or post-doctoral level research projects in two main research areas:

(1) The modelling of monetary policy
(2) The future of the financial services sector.

In the area of monetary policy modelling, we are especially interested in incorporating the analysis of credibility and policy uncertainty in applied models that could be used to analyze monetary policy in practice. The second area aims at illuminating the ongoing structural transformation of the global financial services industry, as driven by electronification and increased competition in particular. This area includes stability and other public policy aspects of the transformation.

A visiting scholar will be expected to conduct research based on a mutually agreed research plan. Articles stemming from the research are expected to be included in the Bank's Discussion Papers and may be published elsewhere as well. A visiting scholar should normally also give a lecture at the Bank to an audience of economists on his or her research topic as well as interact with other researchers engaged in projects in the same area.

Remuneration for visiting scholars will be commensurate with their research experience.

Persons interested in applying are invited to send

– a brief research proposal concerning either of the two areas

– a CV specifying the applicant's academic and research background, with the names of two or three referees

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SUOMEN PANKKI • FINLANDS BANK

Balance sheet of the Bank of Finland, EUR million

		2002	2003	
		31.12.	31.1.	28.2.
Assets				
1	**Gold and gold receivables**	515	515	515
2	**Claims on non-euro area residents denominated in foreign currency**	8,694	8,965	8,810
2.1	Receivables from the IMF	816	813	816
2.2	Balances with banks and security investments, external loans and other external assets	7,878	8,151	7,994
3	**Claims on euro area residents denominated in foreign currency**	721	627	683
4	**Claims on non-euro area residents denominated in euro**	0	0	0
4.1	Balances with banks, security investments and loans	0	0	0
4.2	Claims arising from the credit facility under the ERM II	–	–	–
5	**Lending to euro area credit institutions related to monetary policy operations denominated in euro**	2,970	1,817	1,772
5.1	Main refinancing operations	2,970	1,756	1,344
5.2	Longer-term refinancing operations	–	62	428
5.3	Fine-tuning reverse operations	–	–	–
5.4	Structural reverse operations	–	–	–
5.5	Marginal lending facility	–	–	–
5.6	Credits related to margin calls	–	–	–
6	**Other claims on euro area credit institutions denominated in euro**	1	1	2
7	**Securities of euro area residents denominated in euro**	–	–	–
8	**General government debt denominated in euro**	0	0	0
9	**Intra-Eurosystem claims**	3,605	3,486	3,553
9.1	Share in ECB capital	70	70	70
9.2	Claims equivalent to the transfer of foreign currency reserves	699	699	699
9.3	Claims related to the issuance of ECB debt certificates	–	–	–
9.4	Claims related to TARGET and correspondent accounts (net)	–	–	–
9.5	Claims related to other operational requirements within the Eurosystem	2,836	2,718	2,784
10	**Other assets**	808	792	787
Total assets		17,315	16,205	16,122

Totals/sub-totals may not add up because of rounding.

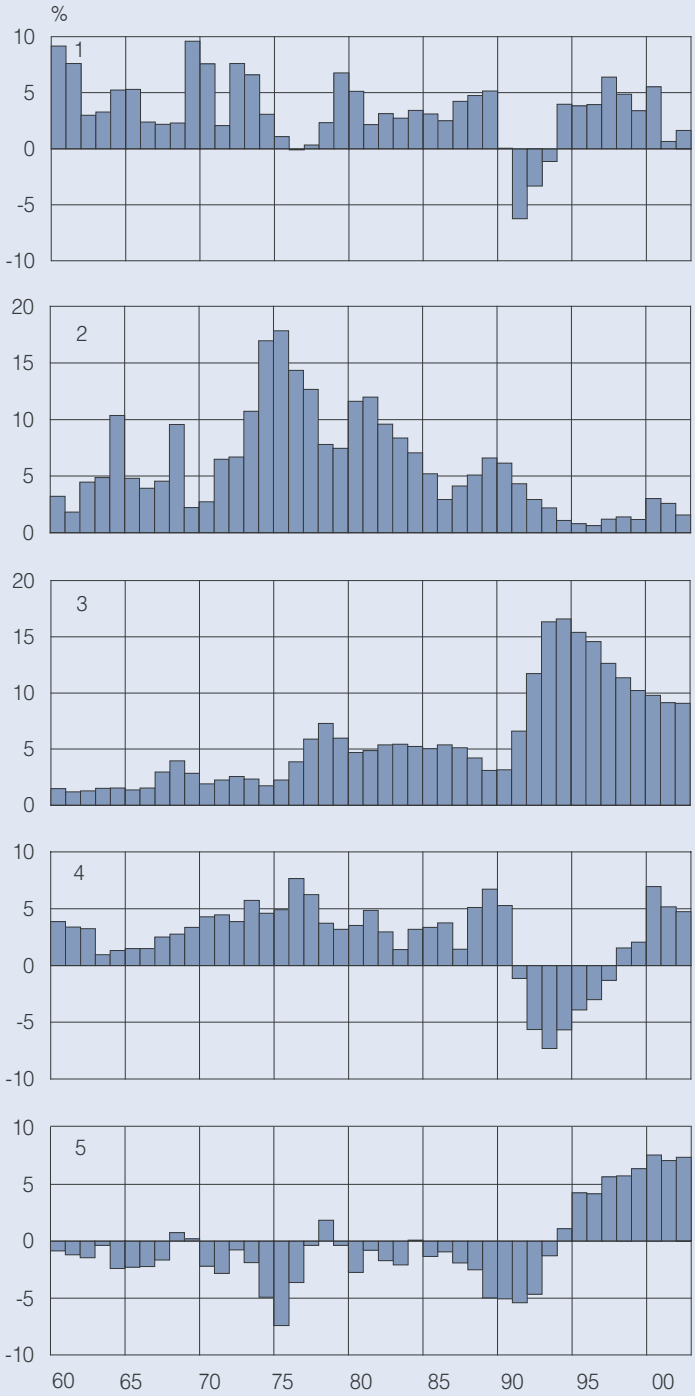
Liabilities

		2002	2003	
		31.12.	31.1.	28.2.
1	**Banknotes in circulation**[1]	5,853	5,388	5,482
2	**Liabilities to euro area credit institutions related to monetary policy operations denominated in euro**	3,759	1,679	5,642
2.1	Current accounts (covering the minimum reserve system)	3,759	1,679	5,642
2.2	Deposit facility	–	–	–
2.3	Fixed-term deposits	–	–	–
2.4	Fine-tuning reverse operations	–	–	–
2.5	Deposits related to margin calls	–	–	–
3	**Other liabilities to euro area credit insitutions denominated in euro**	–	–	–
4	**Liabilities to other euro area residents denominated in euro**	5	2	2
4.1	General government	–	–	–
4.2	Other liabilities	5	2	2
5	**Liabilities to non-euro area residents denominated in euro**	1	2	1
6	**Liabilities to euro area residents denominated in foreign currency**	–	0	0
7	**Liabilities to non-euro area residents denominated in foreign currency**	0	154	11
7.1	Deposits, balances and other liabilities	0	154	11
7.2	Liabilities arising from the credit facility under the ERM II	–	–	–
8	**Counterpart of special drawing rights allocated by the IMF**	185	185	185
9	**Intra-Eurosystem liabilities**	2,159	3,329	-692
9.1	Liabilities related to promissory notes backing the issuance of ECB debt certificates	–	–	–
9.2	Liabilities related to TARGET and correspondent accounts (net)	2,159	3,329	-692
9.3	Liabilities related to other operational requirements within the Eurosystem	–	–	–
10	**Other liabilities**	77	190	334
11	**Revaluation account**	689	689	689
12	**Capital and reserves**	4,587	4,587	4,468
Total liabilities		17,315	16,205	16,122

[1] According to the accounting regime chosen by the Eurosystem on the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The counterpart of this adjustment is disclosed under 'Other claims within the Eurosystem'. The remaining 92% of the value of the euro banknotes in circulation are allocated to the NCBs on a monthly basis too, whereby each NCB shows in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to the NCB according to the aforementioned accounting regime, and the value of euro banknotes put into circulation, is also disclosed under 'Other claims/debts within the Eurosystem'.

Charts

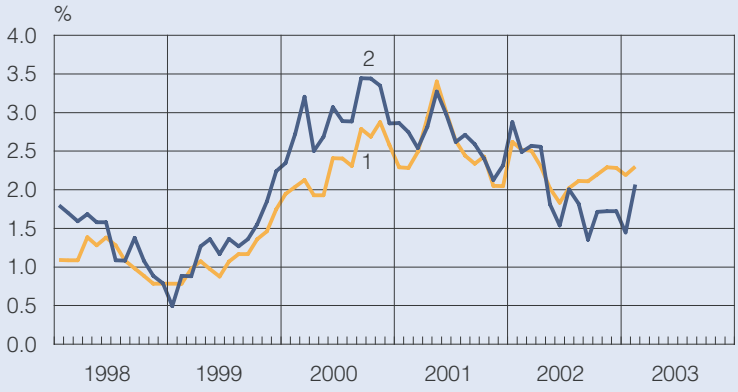
1. Finland: key economic indicators



1. GDP, volume change from previous year
2. Consumer prices, change from previous year
3. Unemployment rate
4. General government fiscal position, % of GDP
5. Current account, % of GDP

Sources:
Statistics Finland and
Bank of Finland.

2. Price stability in the euro area and Finland

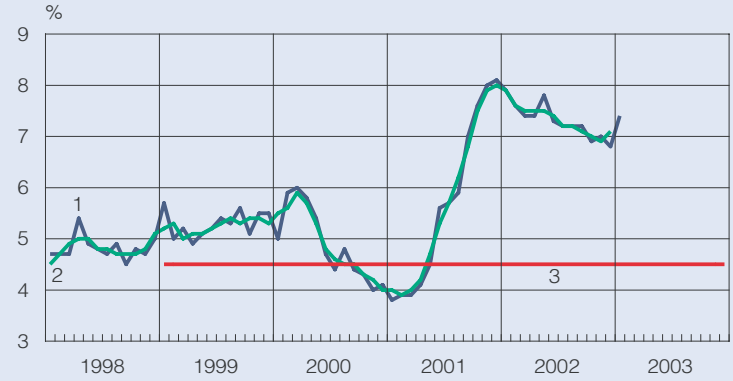


Harmonised index of consumer prices, 12-month change, %

1. Euro area
2. Finland

Sources:
Eurostat and Statistics Finland.

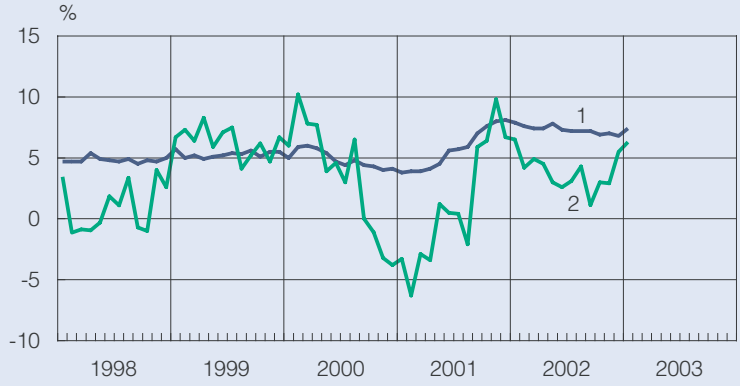
3. Monetary aggregates for the euro area



1. M3, 12-month change, %
2. M3, 3-month mov age of 12-month change, %
3. Reference value for M3 growth

Source:
European Central Bank.

4. Growth of the money stock in the euro area and Finland

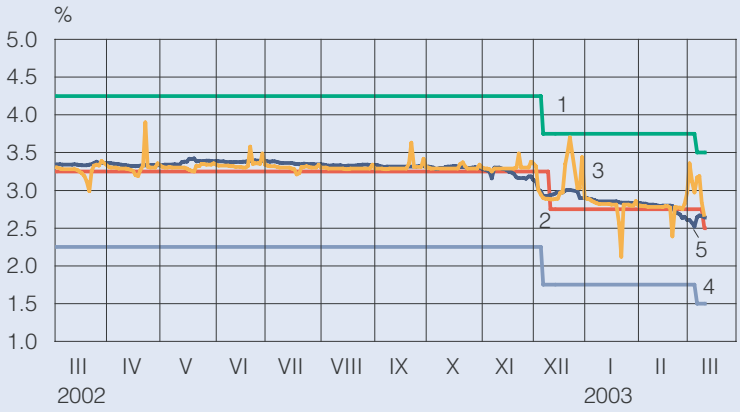


12-month change, %

1. M3 for the euro area
2. Finnish Contribution to euro area M3 (excl. currency in circulation with the public)

Sources:
European Central Bank and Bank of Finland.

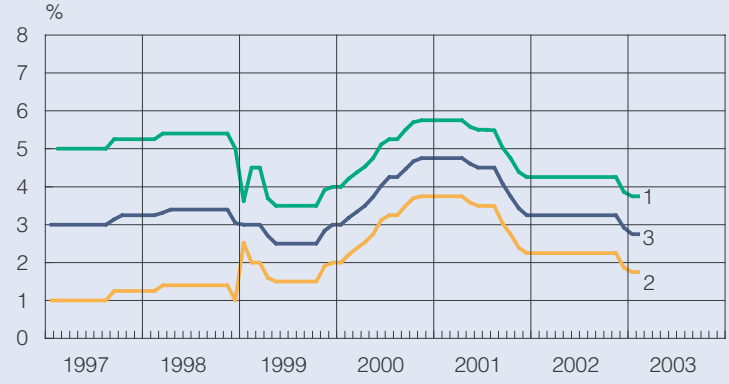
5. Eurosystem interest rates and money market rates



1. Marginal lending rate
2. Main refinancing rate / minimum bid rate
3. Eonia rate
4. Deposit rate
5. 1-month Euribor

Sources:
European Central Bank and Reuters.

6. Eurosystem (Bank of Finland) interest rates

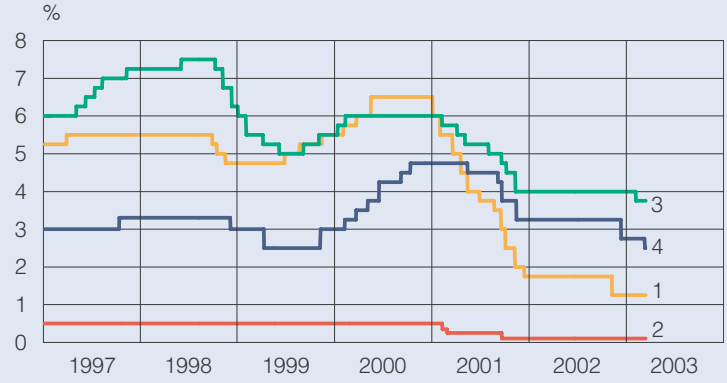


Bank of Finland interest rates until end-1998

1. Marginal lending rate (liquidity credit rate until end-1998)
2. Deposit rate (excess-reserve rate until end-1998)
3. Main refinancing rate / minimum bid rate (tender rate until end-1998)

Source:
European Central Bank.

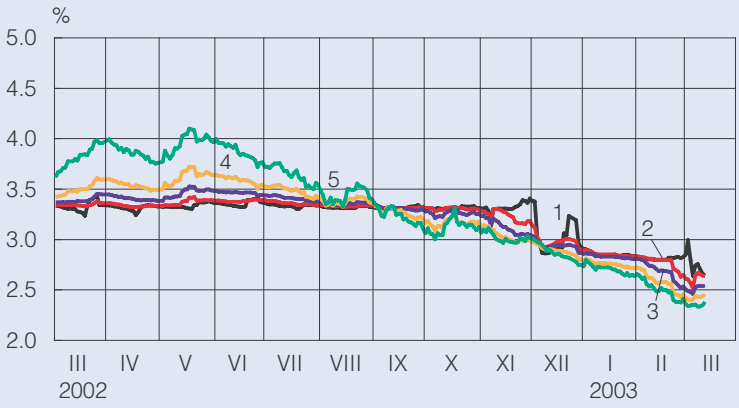
7. Official interest rates



1. USA: fed funds target rate
2. Japan: discount rate
3. United Kingdom: repo rate
4. Eurosystem: main refinancing rate (German repo rate until end-1998)

Source: Bloomberg.

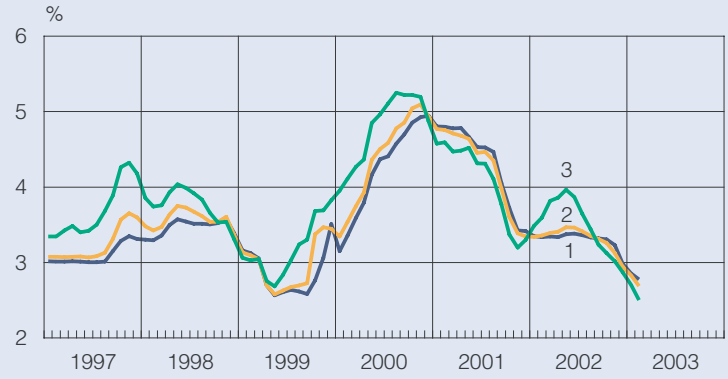
8. Euribor rates, daily values



1. 1-week
2. 1-month
3. 3-month
4. 6-month
5. 12-month

Source: Reuters.

9. Euribor rates, monthly values

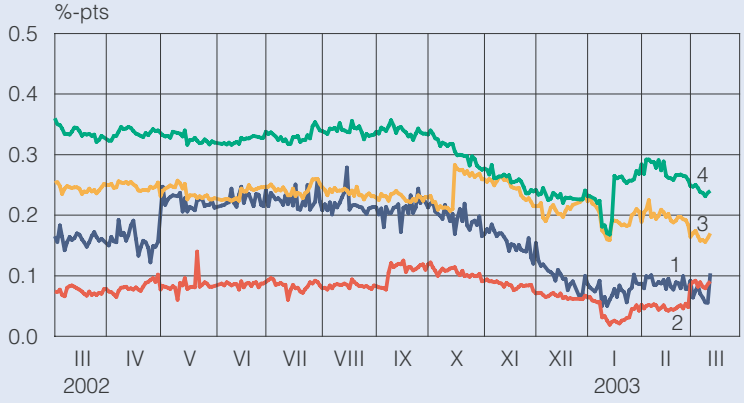


Helibor rates until end-1998

1. 1-month
2. 3-month
3. 12-month

Source: Reuters.

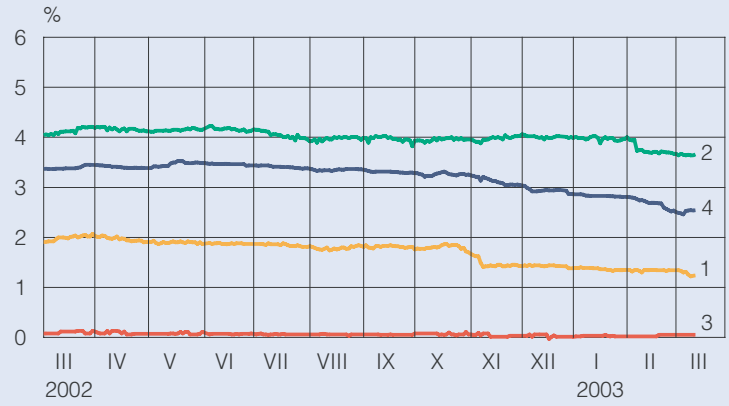
10. Differentials between ten-year yields for Germany and selected euro area countries



1. Finland
2. France
3. Italy
4. Largest differential

Source: Reuters.

11. International three-month interest rates, daily values

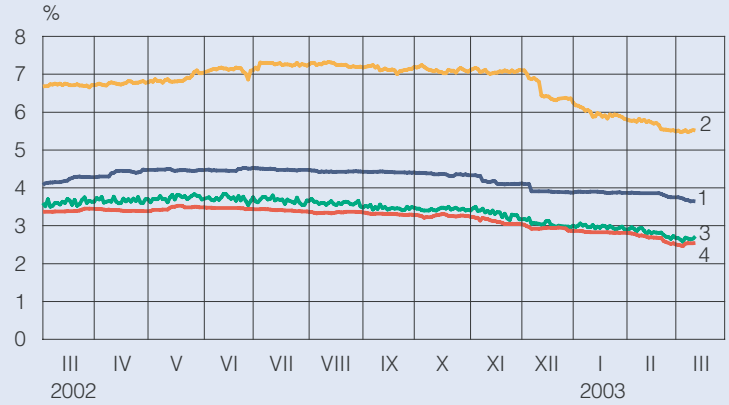


Interbank rates

1. United States
2. United Kingdom
3. Japan
4. Euro area

Source: Reuters.

12. Three-month interest rates in the Nordic countries, daily values

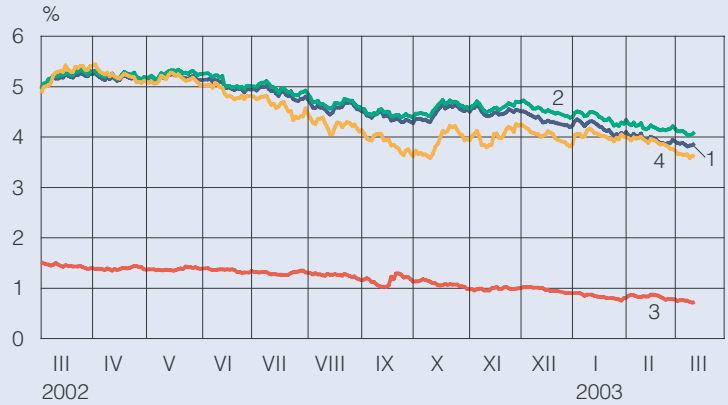


Interbank rates

1. Sweden (Stibor)
2. Norway
3. Denmark
4. Finland (Euribor)

Source: Reuters.

13. International long-term interest rates, daily values

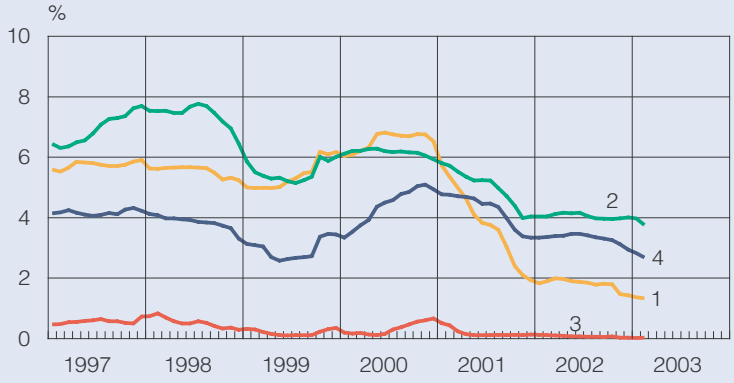


Yields on ten-year government bonds

1. Germany
2. United Kingdom
3. Japan
4. United States

Source: Reuters.

14. International three-month interest rates, monthly values

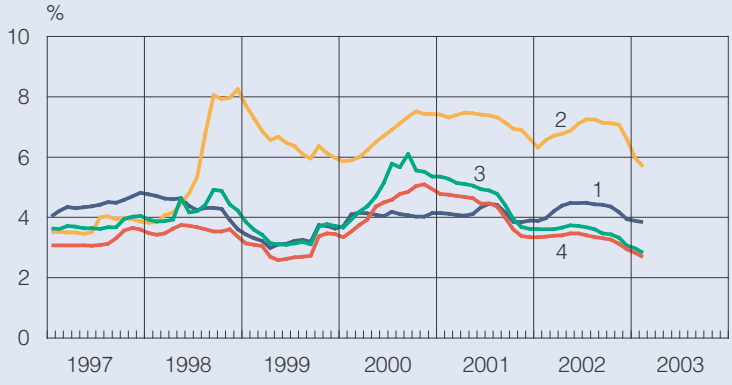


Interbank rates

1. United States
2. United Kingdom
3. Japan
4. Euro area

Source: Reuters.

15. Three-month interest rates in the Nordic countries, monthly values

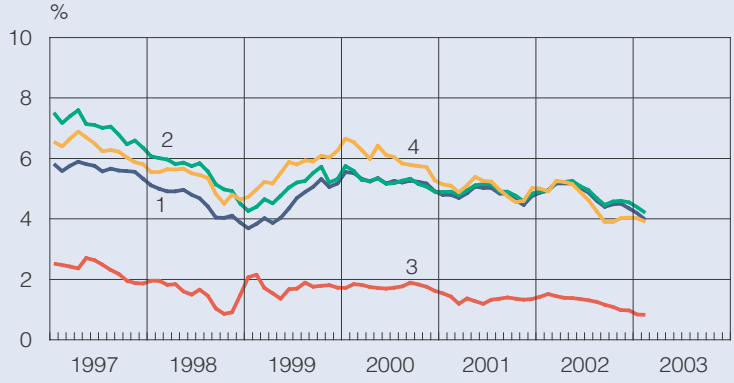


Interbank rates

1. Sweden (Stibor)
2. Norway
3. Denmark
4. Finland (Euribor; Helibor until end-1998)

Source: Reuters.

16. International long-term interest rates, monthly values

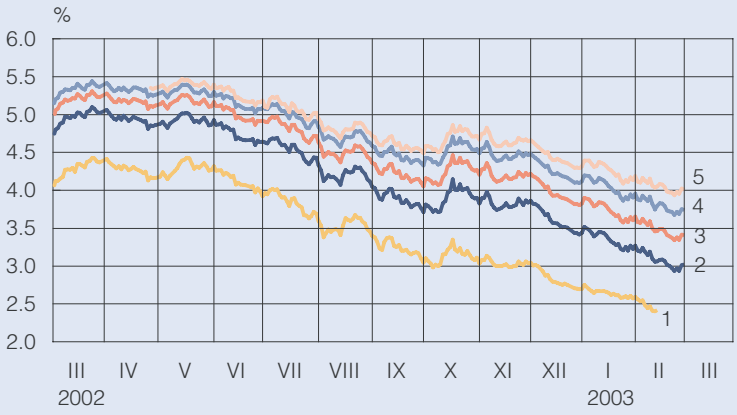


Yields on ten-year government bonds

1. Germany
2. United Kingdom
3. Japan
4. United States

Source: Reuters.

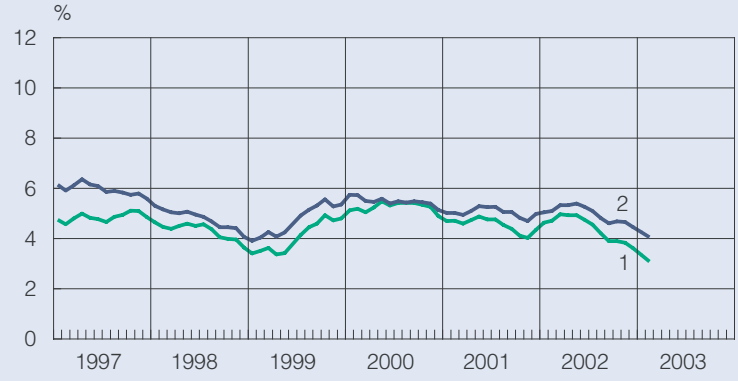
17. Yields on Finnish benchmark government bonds



1. Bond maturing on 15 March 2004, 9.5%
2. Bond maturing on 4 July 2007, 5%
3. Bond maturing on 25 April 2009, 5%
4. Bond maturing on 23 February 2011, 5.75%
5. Bond maturing on 4 July 2013, 5.375%

Source: Reuters.

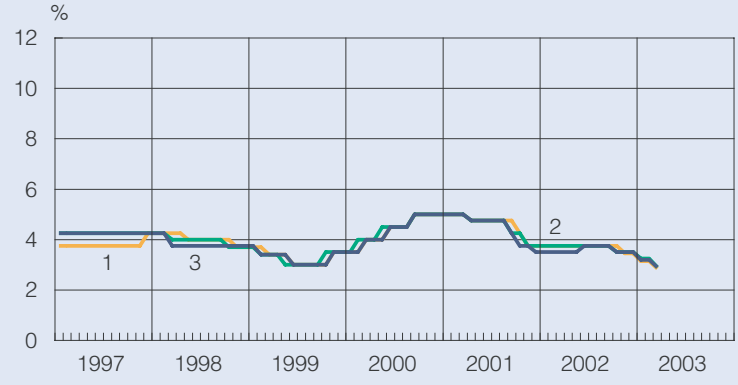
18. Yields on five and ten-year Finnish government bonds



1. 5 years
2. 10 years

Source: Reuters.

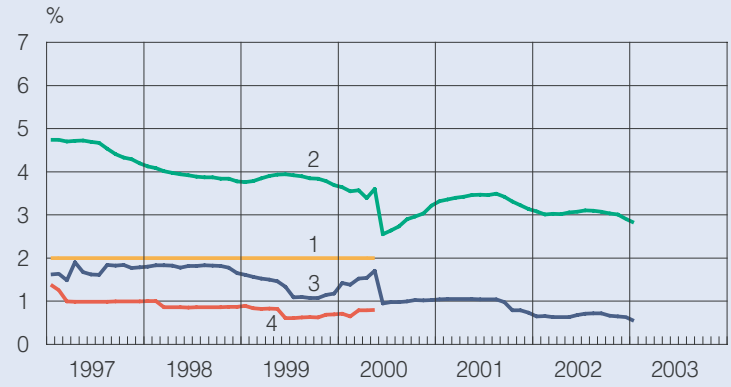
19. Bank reference rates in Finland



1. Nordea prime
2. Sampo prime
3. OKOBANK group prime

Source: Banks.

20. Bank deposit rates in Finland

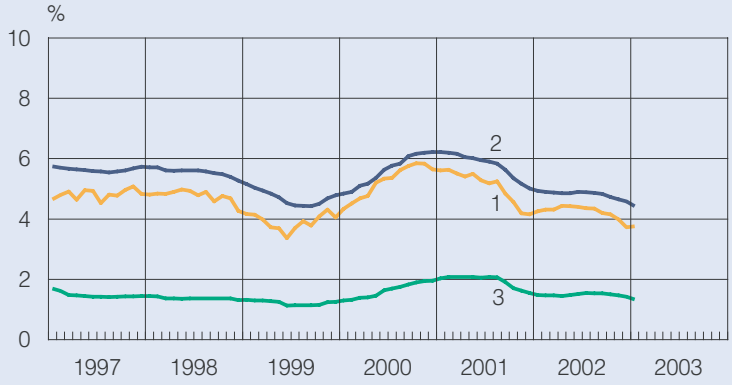


The tax treatment of deposits changed on 1 June 2000.

1. Rate on tax-exempt transaction accounts (upper limit)
2. Average rate on fixed-term deposits subject to withholding tax
3. Average rate on cheque and transaction accounts subject to withholding tax
4. Average rate on tax-exempt cheque and transaction accounts

Source: Bank of Finland.

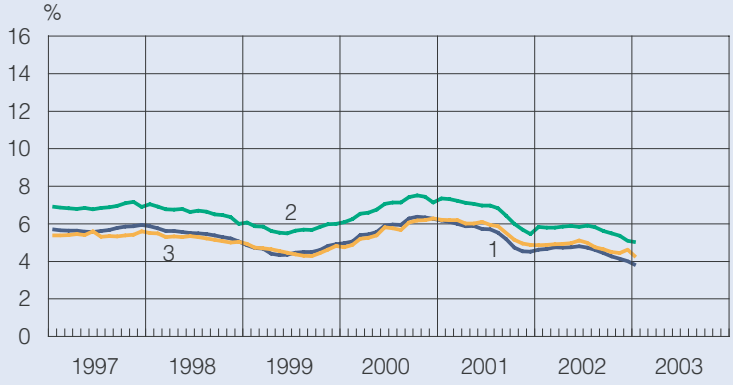
21. Bank lending and deposit rates in Finland



1. Rate on new lending
2. Average lending rate
3. Average deposit rate

Source: Bank of Finland.

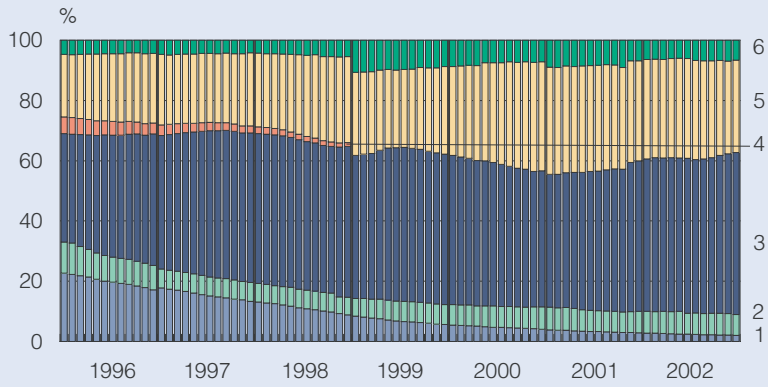
22. Interest rates charged by Finnish banks on new lending to households



1. New housing loans
2. New consumer credits
3. New study loans

Source: Bank of Finland.

23. Stock of bank lending in Finland

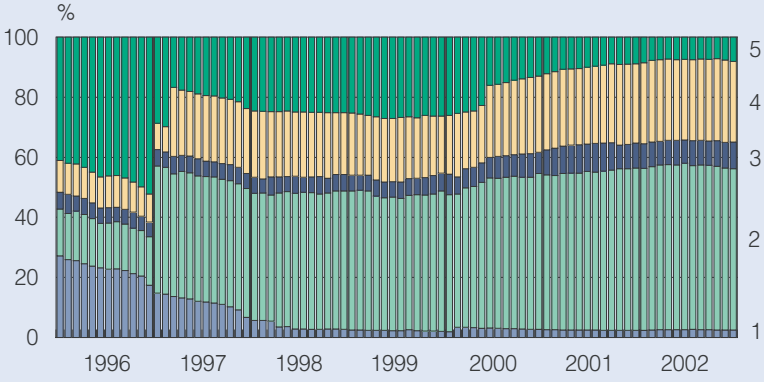


Interest rate linkages, percentages

1. Linked to base rate
2. Fixed-rate
3. Linked to Euribor (Helibor until end-1998)
4. Linked to 3 and 5-year reference rates
5. Linked to reference rates of individual banks (prime rates etc)
6. Other

Source: Bank of Finland.

24. Stock of bank deposits in Finland by interest rate linkage

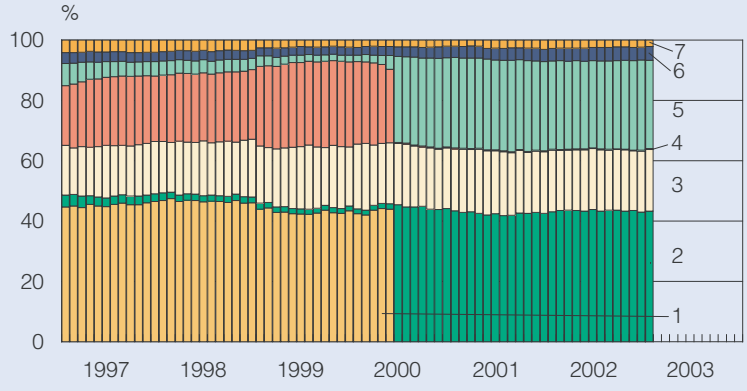


Interest rate linkages, percentages

1. Linked to base rate
2. Fixed-rate
3. Linked to Euribor (Helibor until end-1998)
4. Linked to reference rates of individual banks (prime rates etc)
5. Other

Source: Bank of Finland.

25. Stock of bank deposits in Finland by tax treatment

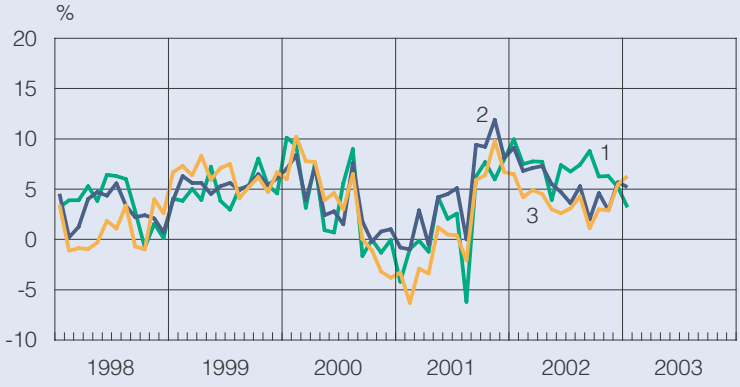


The tax treatment of deposits changed on 1 June 2000.

1. Tax-exempt cheque and transaction accounts
2. Cheque and transaction accounts subject to withholding tax
3. Other taxable cheque and transaction accounts
4. Tax-exempt fixed-term accounts and other accounts
5. Fixed-term accounts and other accounts subject to withholding tax
6. Other taxable accounts
7. Foreign currency accounts

Source: Bank of Finland.

26. Liabilities of Finnish monetary financial institutions included in monetary aggregates for the euro area (excl. currency in circulation with the public)

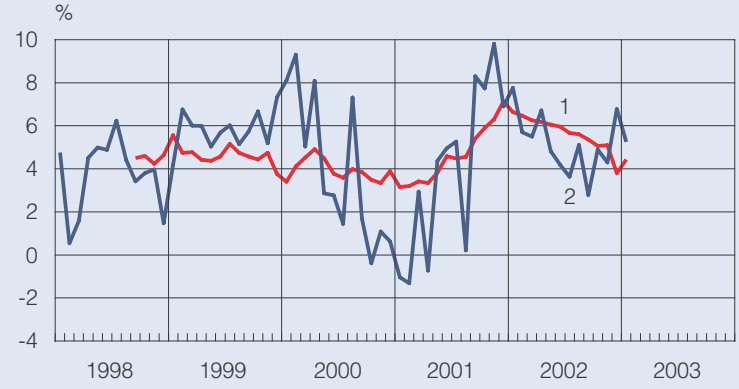


12-month change, %

1. M1
2. M2
3. M3

Source: Bank of Finland.

27. MFI deposits, euro area and Finland

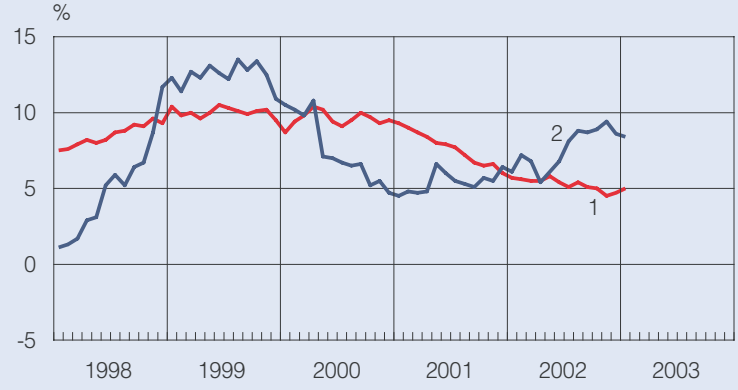


12-month change, %

1. Euro area residents' deposits at euro area MFIs
2. Finnish residents' deposits at Finnish MFIs

Sources:
European Central Bank and Bank of Finland.

28. MFI loans to private sector, euro area and Finland

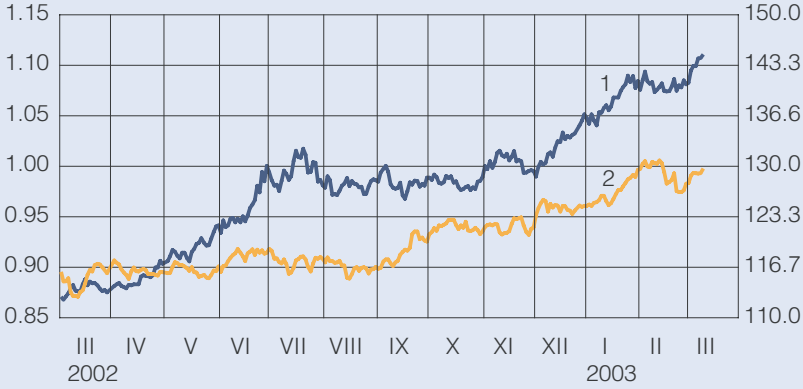


12-month change, %

1. Loans by euro area MFIs to euro area residents
2. Loans by Finnish MFIs to Finnish residents

Sources:
European Central Bank and Bank of Finland.

29. Euro exchange rates against the US dollar and the yen, daily values

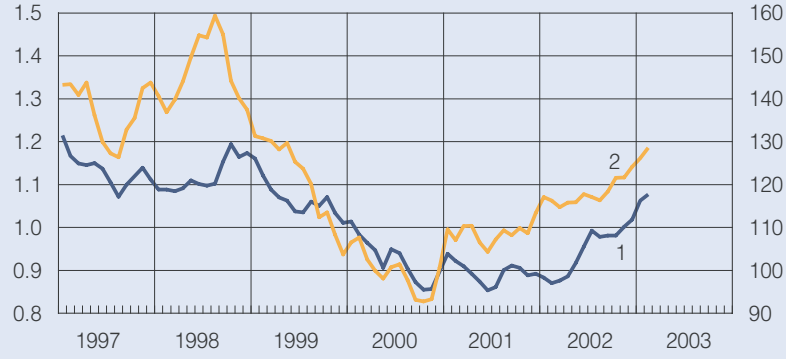


Rising curve indicates appreciation of euro

1. Value of one euro in US dollars (left-hand scale)
2. Value of one euro in Japanese yen (right-hand scale)

Sources: European Central Bank and Reuters.

30. Euro exchange rates against the US dollar and the yen, monthly values



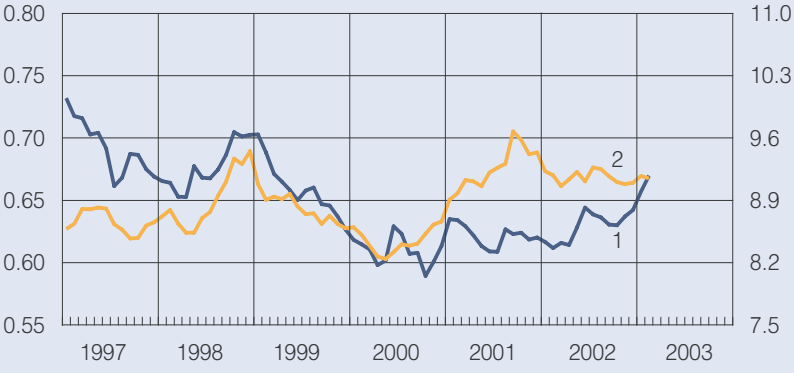
(ecu exchange rate until end-1998)

Rising curve indicates appreciation of euro

1. Value of one euro in US dollars (left-hand scale)
2. Value of one euro in Japanese yen (right-hand scale)

Sources: European Central Bank and Reuters.

31. Euro exchange rates against the pound sterling and the Swedish krona



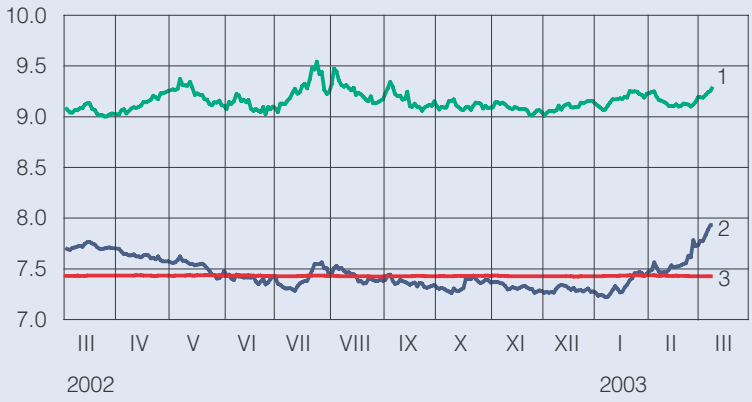
(ecu exchange rate until end-1998)

Rising curve indicates appreciation of euro

1. Value of one euro in pounds sterling (left-hand scale)
2. Value of one euro in Swedish kronor (right-hand scale)

Sources: European Central Bank and Reuters.

32. Euro exchange rates against the Scandinavian currencies

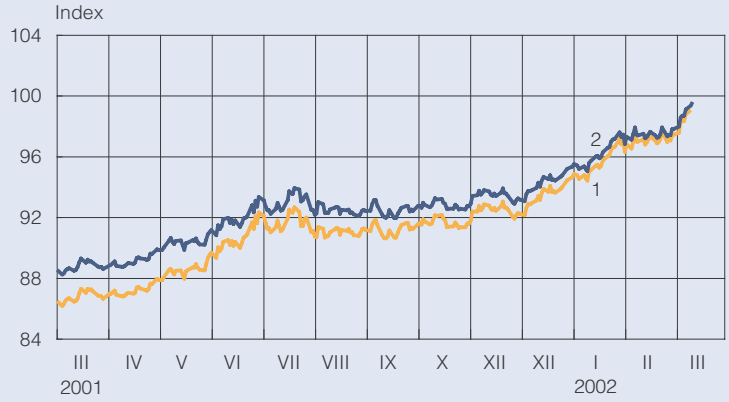


Rising curve indicates appreciation of euro

1. Value of one euro in Swedish kronor
2. Value of one euro in Norwegian kroner
3. Value of one euro in Danish kroner

Sources: European Central Bank and Reuters.

33. Euro's external value and Finland's competitiveness indicator

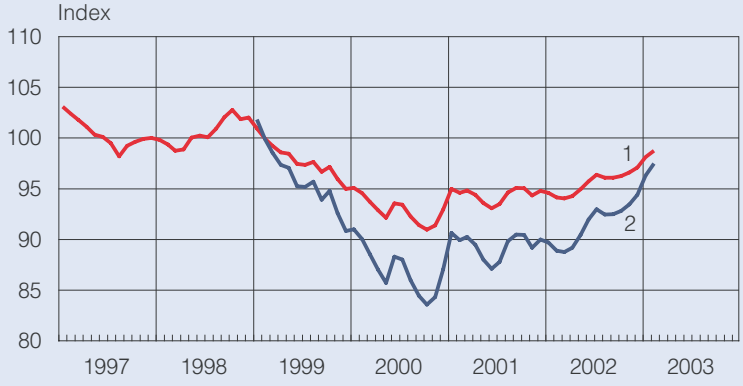


1999 Q1 = 100
An upward movement of the index represents an appreciation of the euro / a weakening in Finnish competitiveness

1. Euro's effective exchange rate
2. Finland's narrow competitiveness indicator

Sources:
European Central Bank and Bank of Finland.

34. Competitiveness indicators for Finland

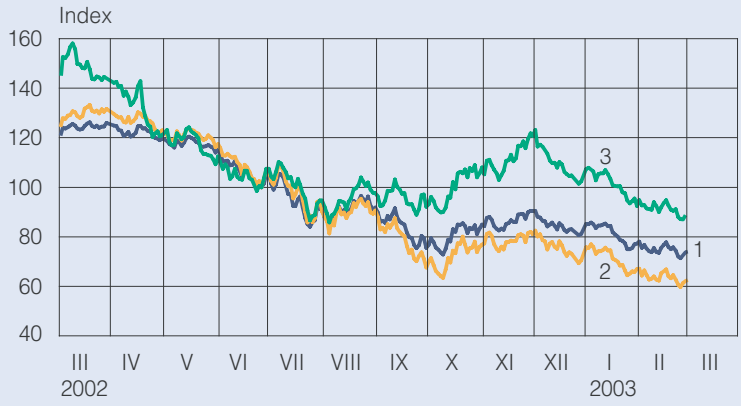


1999 Q1 = 100
An upward movement of the index represents a weakening in Finnish competitiveness

1. Narrow plus euro area competitiveness indicator
2. Narrow competitiveness index

Source: Bank of Finland.

35. Selected stock price indices in the euro area, daily values

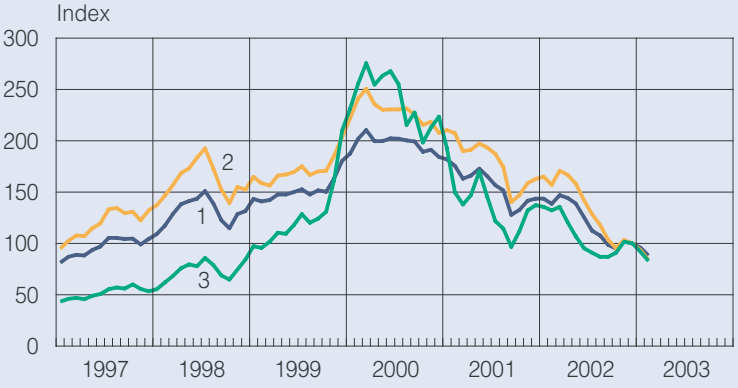


26 June 2002 = 100

1. Euro area:
   Dow Jones Euro Stoxx index
2. Germany: DAX index
3. Finland: HEX all-share index

Sources: Bloomberg and HEX Helsinki Exchanges.

36. Selected stock price indices in the euro area, monthly values

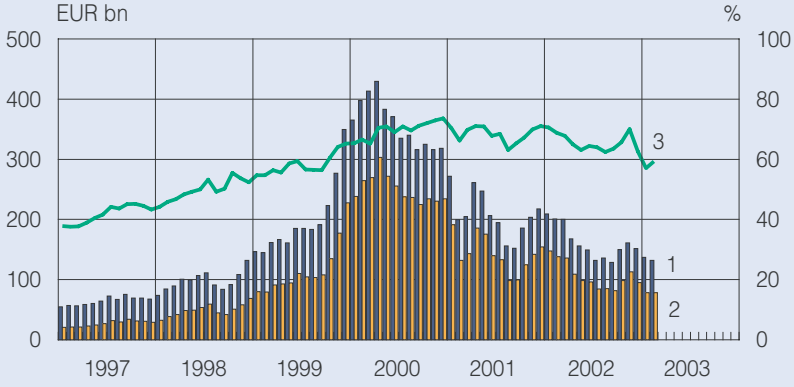


31 December 2002 = 100

1. Total euro area:
   Dow Jones Euro Stoxx index
2. Germany: DAX index
3. Finland: HEX all-share index

Sources: Bloomberg and HEX Helsinki Exchanges.

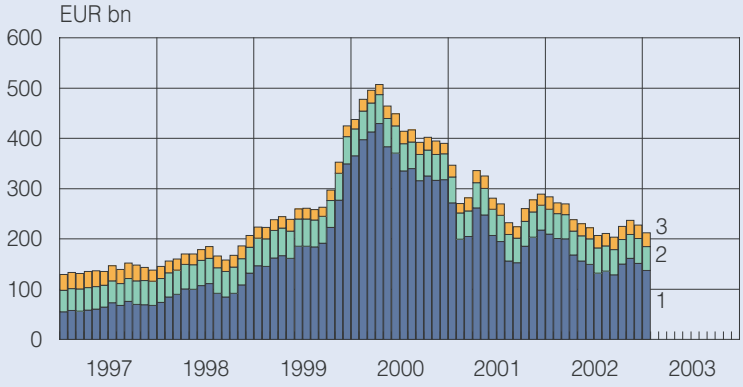
37. Listed shares in Finland: total market capitalisation and non-residents' holdings



1. Market capitalisation of all listed shares (left-hand scale)
2. Market capitalisation of non-residents' holdings (left-hand scale)
3. Market capitalisation of non-residents' holdings as a percentage of total market capitalisation (right-hand scale)

Sources: HEX Helsinki Exchanges and Finnish Central Securities Depository (APK).

38. Securities issued in Finland

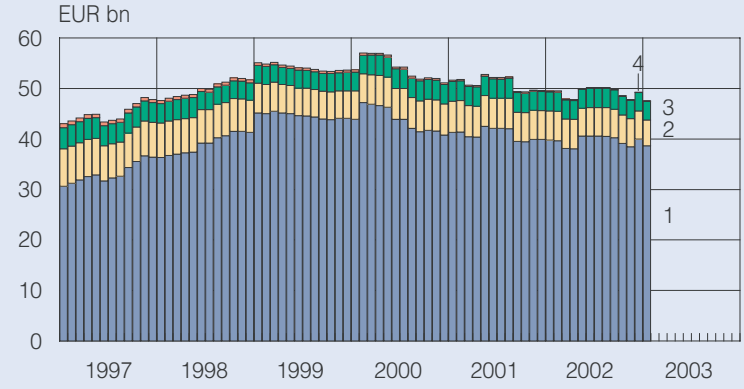


End-month stock

1. Market capitalisation of shares
2. Stock of bonds, nominal value
3. Outstanding money market instruments

Sources:
HEX Helsinki Exchanges,
Bank of Finland,
Statistics Finland and
State Treasury.

39. Bonds issued in Finland

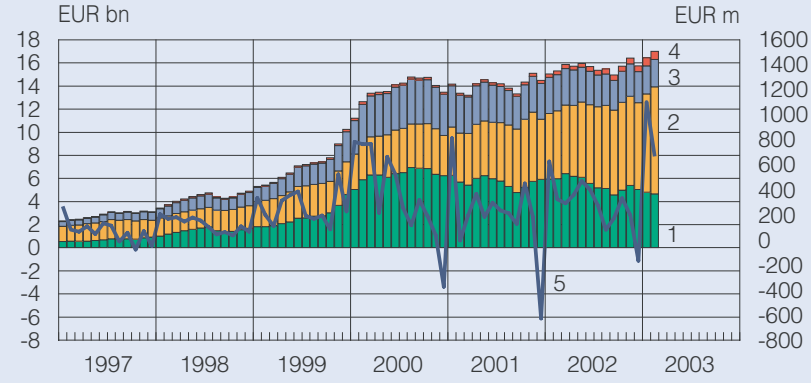


End-month stock

1. Central government
2. Financial institutions
3. Companies
4. Other

Source: Statistics Finland.

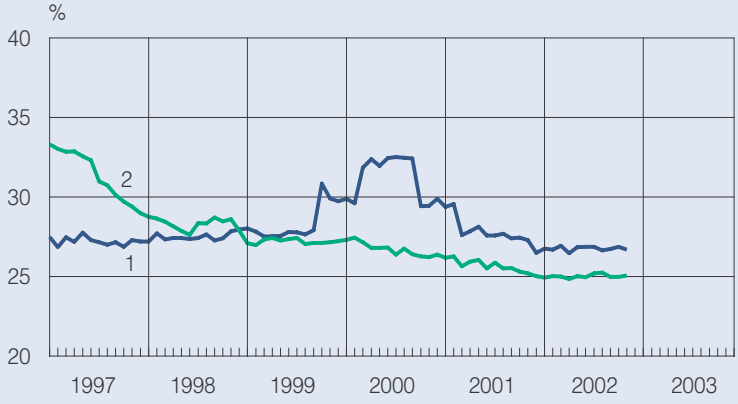
40. Mutual funds registered in Finland



1. Equity funds (left-hand scale)
2. Fixed income funds (left-hand scale)
3. Balanced funds (left-hand scale)
4. Risk funds (left-hand scale)
5. All funds: net subscriptions (right-hand scale)

Source: HEX Helsinki Exchanges.

41. Central government revenue and expenditure in Finland

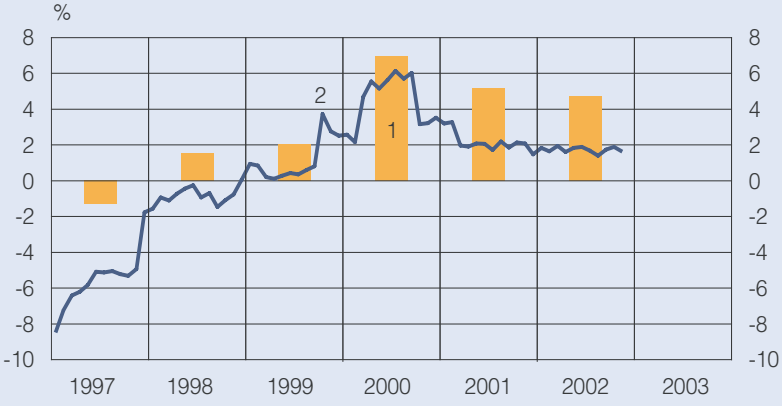


Excluding financial transactions
12-month moving totals, % of GDP

1. Revenue
2. Expenditure

Sources: State Treasury, Statistics Finland and Bank of Finland.

42. Public sector balances in Finland

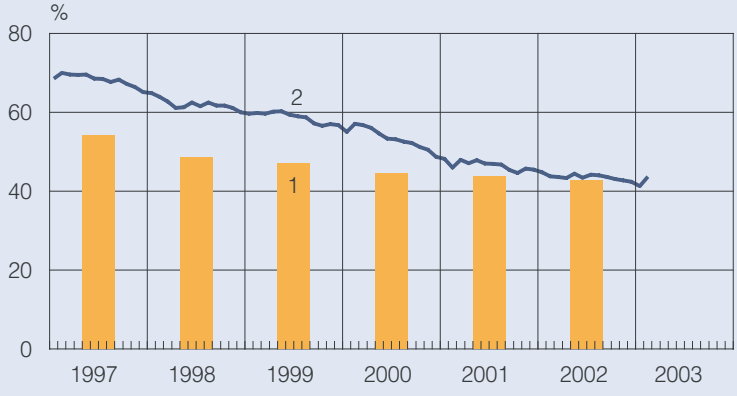


% of GDP

1. General government fiscal position
2. Central government revenue surplus, 12-month moving total

Sources: State Treasury, Statistics Finland and Bank of Finland.

43. Public debt in Finland

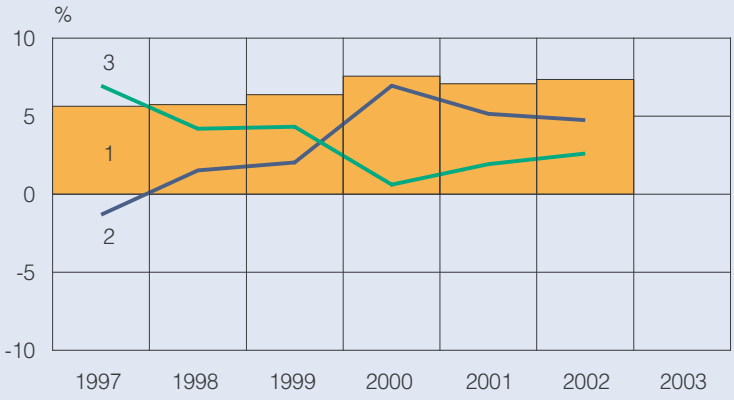


% of GDP

1. General government debt
2. Central government debt

Sources: Statistics Finland and State Treasury.

44. Net lending in Finland by sector

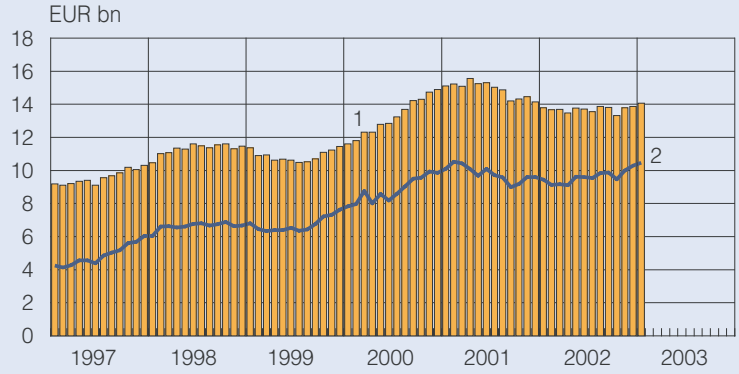


Main sectoral financial balances, % of GDP

1. Current account
2. General government sector
3. Private sector

Sources: Bank of Finland and Statistics Finland.

45. Finland: goods account and current account

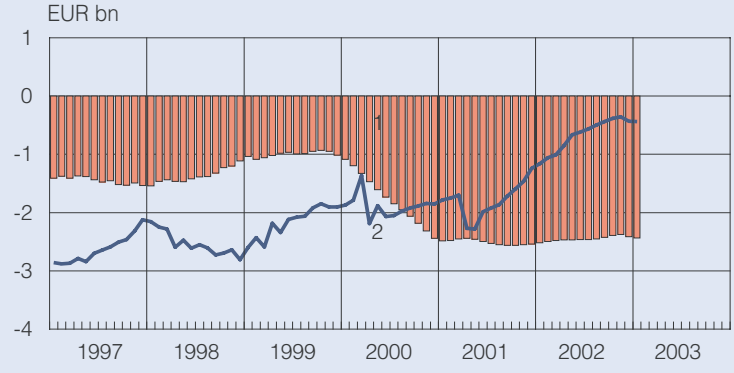


12-month moving totals

1. Goods account, fob
2. Current account

Source: Bank of Finland.

46. Finland: services account and income account

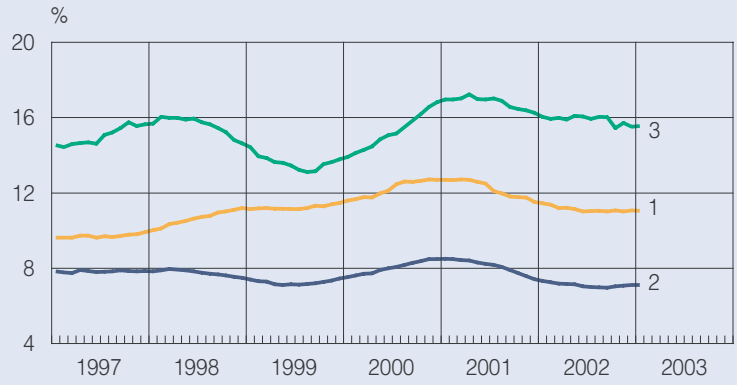


12-month moving totals

1. Services account (trade in goods, fob)
2. Income account

Source: Bank of Finland.

47. Regional distribution of Finnish exports

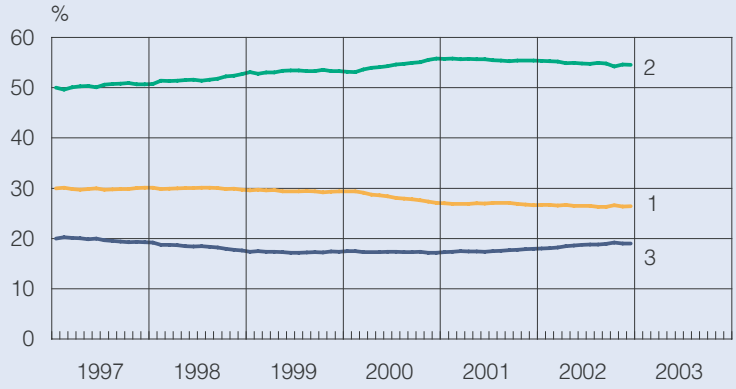


12-month moving totals,
% of GDP

1. Euro area
2. Other EU member states
3. Rest of world

Sources:
National Board of Customs
and Statistics Finland.

48. Finnish exports by industry

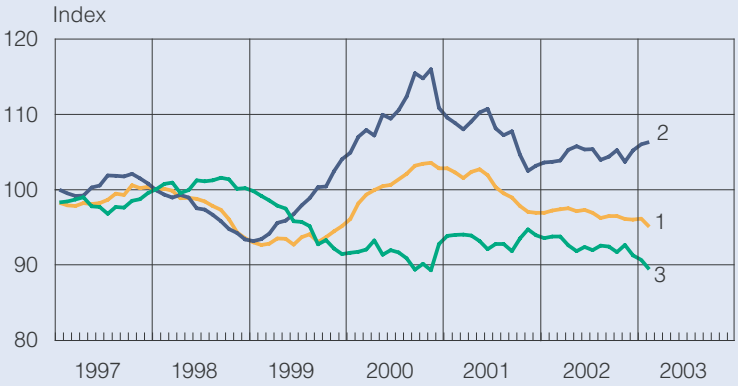


12-month moving totals,
percentage of total exports

1. Forest industries
2. Metal and engineering
   industries (incl. electronics)
3. Other industry

Source:
National Board of Customs.

49. Finland's foreign trade: export prices, import prices and terms of trade

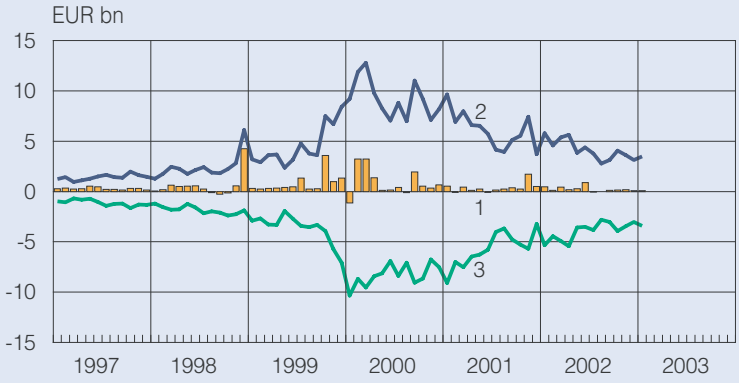


1995 = 100

1. Export prices
2. Import prices
3. Terms of trade

Source: Statistics Finland.

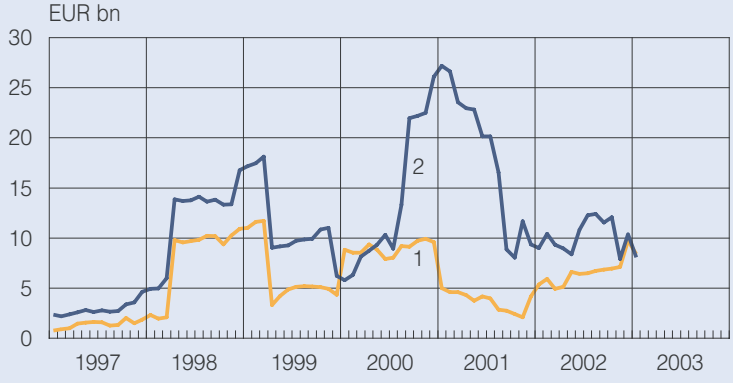
50. Non-residents' portfolio investment in Finnish shares



1. Net sales
2. Sales to non-residents
3. Repurchases from non-residents

Source: Bank of Finland.

51. Finland: direct investment

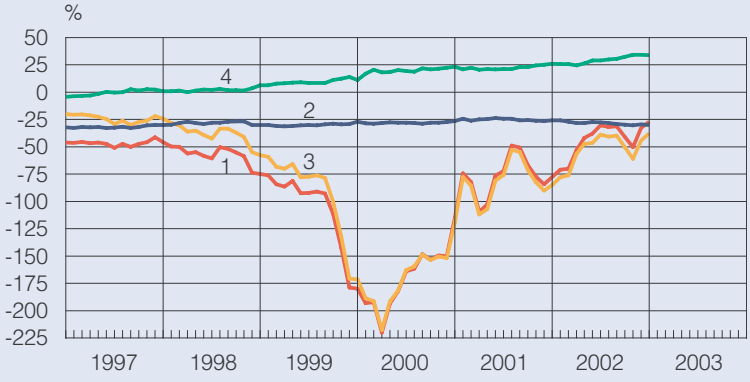


12-month moving totals

1. In Finland
2. Abroad

Source: Bank of Finland.

52. Finland's net international investment position

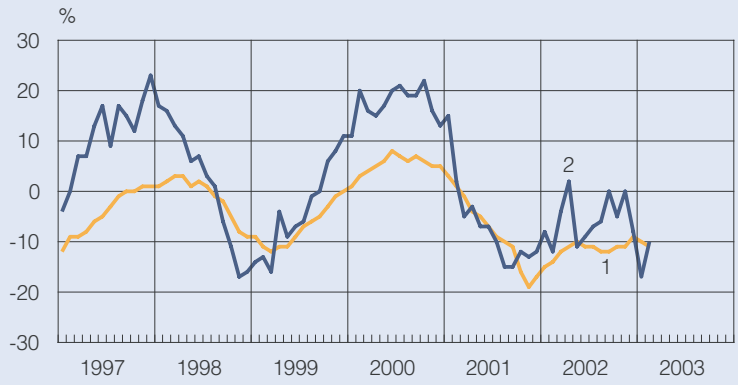


% of GDP

1. Net international investment position
2. Net international investment position of central government
3. Listed shares
4. Other items (excl. reserve assets)

Sources: Bank of Finland and Statistics Finland.

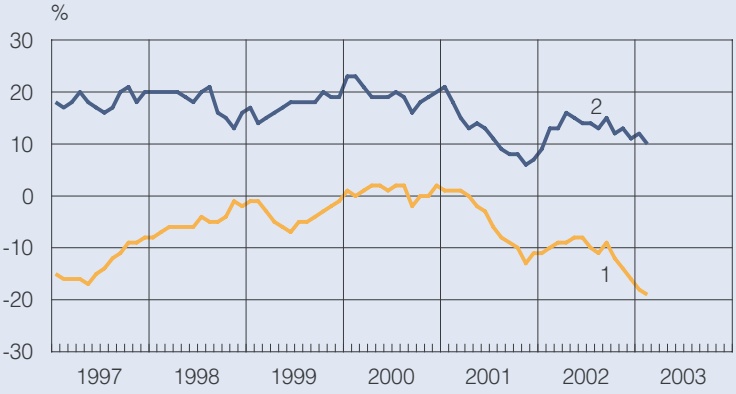
53. Industrial confidence indicator in the euro area and Finland



1. Euro area
2. Finland

Source: European Commission.

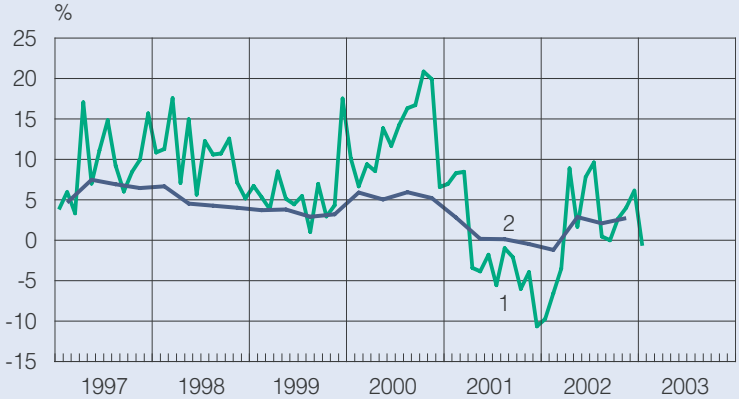
54. Consumer confidence indicator in the euro area and Finland



1. Euro area
2. Finland

Source: European Commission.

55. Finland: GDP and industrial production

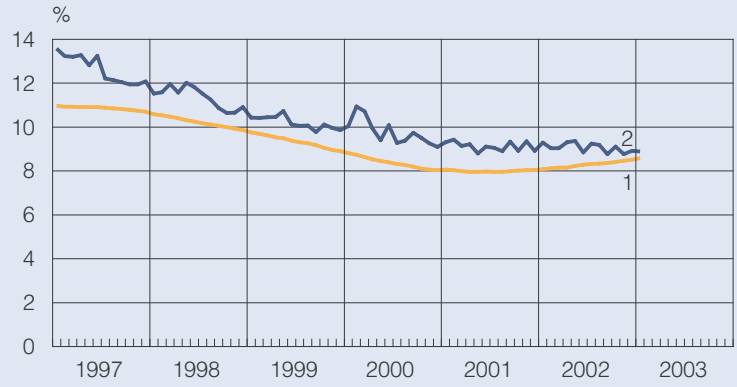


Percentage change from previous year

1. Industrial production
2. Gross domestic product

Source: Statistics Finland.

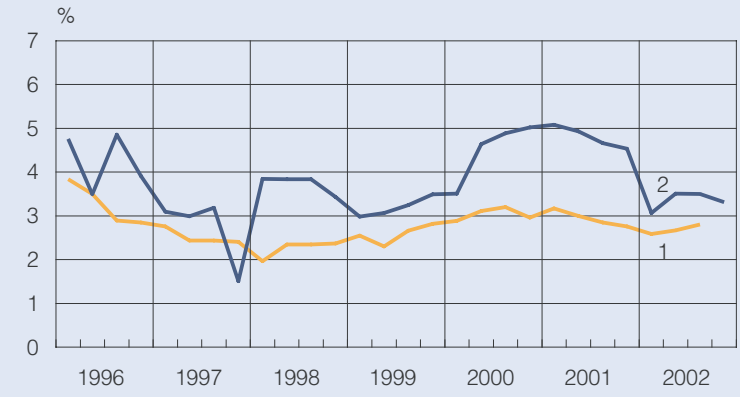
56. Unemployment rate in the euro area and Finland



1. Euro area
2. Finland

Sources: Eurostat, Statistics Finland and Bank of Finland.

57. Level of industrial earnings in the euro area and Finland

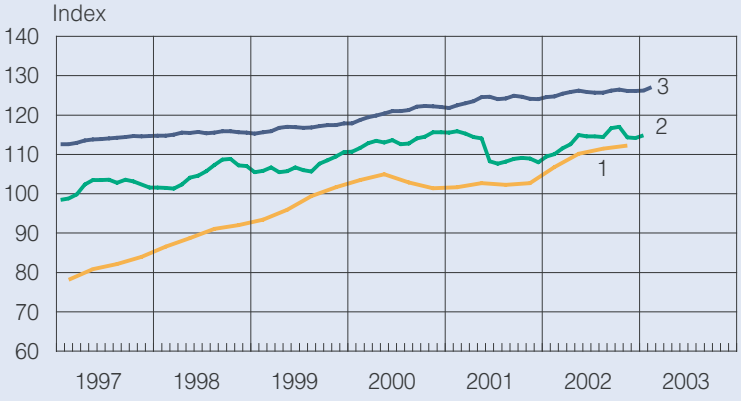


Percentage change from previous year

1. Euro area
2. Finland

Sources: Eurostat and Statistics Finland.

58. Selected asset prices in Finland



January 1990 = 100

1. Housing prices (secondary market; debt-free price per m^2)
2. Stumpage prices
3. Consumer prices

Sources:
Finnish Forest Research Institute, Statistics Finland and National Board of Customs.

Organisation of the Bank of Finland

1 February 2003

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Olavi Ala-Nissilä, Ben Zyskowicz, Antero Kekkonen, Anneli Jäätteenmäki,
Martti Tiuri, Kari Uotila, Mauri Pekkarinen

Anton Mäkelä, Secretary to the Parliamentary Supervisory Council

The Board

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Governor

Matti Louekoski
Deputy Governor

Sinikka Salo
Member of the Board

Pentti Hakkarainen
Member of the Board

Heikki T. Hämäläinen, Secretary to the Board

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Antti Juusela
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Payments and Settlement

Armi Westin
Information Technology

Esa Ojanen
Administration

Veli-Matti Lumiala
Security

* Adviser to the Board

Branch offices: Kuopio, Oulu, Tampere and Turku.

The Financial Supervision Authority functions as an independent body in connection with the Bank of Finland; the Director General is Kaarlo Jännäri.

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