



BANK OF FINLAND

BULLETIN

2002 • Vol. 76 No. 1



- The Bank of Finland's macroeconomic forecast 2002–2004
 - Spending limits and fiscal discipline in euro area countries
 - Social exclusion: a challenge to macroeconomic policy
-

BANK OF FINLAND BULLETIN

Vol. 76 No. 1/2002

The Bank of Finland Bulletin is a quarterly publication.

Publisher

Suomen Pankki • Bank of Finland

Editorial Board

Antti Juusela, Chairman

Heikki Koskenkylä

Pentti Pikkarainen

Antti Suvanto

Juha Tarkka

Editor-in-Chief

Matti Vanhala

Edited

by the Bank of Finland's
Publication and Language Services

Mailing address:

P.O.Box 160,
FIN-00101 HELSINKI

Phone:

National (09) 1831
International + 358 9 1831

Email:

publications@bof.fi

Telex: 121224 SPFBFI

Fax: + 358 9 174872

Cable: SUOMENPANKKI

Printed by Sävypaino,
Espoo 2002

The contents of the Bulletin
may be freely quoted, but
due acknowledgement is requested.

ISSN 0784-6509 (print)

ISSN 1456-5870 (online)

Contents

| | |
|--|----|
| The Bank of Finland's macroeconomic forecast 2002–2004 | 1 |
| Spending limits and fiscal discipline in euro area countries by Anne Brunila and Helvi Kinnunen | 18 |
| Social exclusion: a challenge to macroeconomic policy by David Mayes | 23 |
| The Eurosystem's monetary policy instruments | 28 |
| Recent Bank of Finland research publications | 31 |
| Finland in brief | 37 |
| Visiting Scholars Programme | 39 |
| Balance sheet of the Bank of Finland | 40 |
| Charts | C1 |
| Bank of Finland • Organization | |

The Bank of Finland's macroeconomic forecast 2002–2004

Finnish economy set for export-driven expansion

The Finnish economy¹ appears set for a positive and balanced performance in terms of growth and inflation, albeit there are risks in the offing. Recovery of the world economy is expected to launch the Finnish economy on a growth path this year, with next year's growth rate accelerating to about 3%.

Finland's export markets will expand slowly yet this year but should be picking up momentum by year-end, as world trade recovers. This, along with strong competitiveness, provides a solid foundation for robust export-driven GDP growth over the coming years. Economic growth remains sluggish in late 2001 and early 2002. For 2002 as a whole, growth is expected to be a modest 1.5%, despite a notable pickup in the latter part of the year. Households' income and confidence have remained firm in spite of the export recession in 2001. This is reflected in stable demand conditions in the retail trade and housing markets. Private investment will decline in 2002 but resume growth as exports gain momentum. GDP growth will accelerate to about 3% pa in 2003 and 2004 (Table 1 and Chart 1).

Inflation is slowing in Finland and the euro area, with the fading of year-2001 inflationary effects of certain one-off factors such as higher prices of oil and (due to animal diseases) food. The upturn in import prices in connection with the upturn in world trade will boost inflation in Finland, especially toward the end of the forecast period, when the rise in import prices escalates to 2.5% pa. It is estimated that the level of earnings will increase 4% pa on average. If productivity improves as forecasted, unit labour costs will increase by around 2% pa. Such de-

velopments in domestic costs and import prices would imply inflation stabilising at about 2% pa during 2002–2004.

The economic outlook is however clouded by imbalances in the economies of the major countries and Finland. The key domestic problems are high unemployment and a shaky balance in the central government's fiscal position. Employment growth has virtually come to a halt and central government finances are not on a solid footing. Moreover, the tax ratio and central government debt ratio are still high, and central government expenditure has exceeded spending limits. The situation is highly problematic in light of upcoming spending pressures in connection with population ageing.

Although the outlook for the world economy has improved recently, the risks of a less favourable outcome need to be taken seriously. The revival of investment activity in the ICT sector – crucial from the Finnish perspective – remains uncertain. If imbalances in the major economies, viz growing indebtedness in the US private sector and deflationary tendencies in Japan, lead to larger-than-assumed decreases in demand, growth prospects for the Finnish economy could turn considerably for the worse – via ensuing movements in exchange rates and share prices.

Moderate inflation outlook

Inflation is forecasted to decelerate notably, compared to recent years' relatively high rates, to 1.9% for 2002, and even lower during the year, and to pick up slightly in 2003–2004, due partly to rising unit labour costs and accelerating rises in import prices. The pronounced upward trend in unit labour costs should end this year, only to resume as accelerating wage increases outpace productivity gains (Chart 2).

¹ Forecast based on information available at 28 Feb 2002.

Table 1. Forecast summary**Demand and supply 2000–2004 (1995 prices)**

| | 2000 | 2001 | 2002f | 2003f | 2004f |
|--|-------------|-------------|--------------|--------------|--------------|
| %-change on year earlier | | | | | |
| Gross domestic product | 5.6 | 0.7 | 1.5 | 2.9 | 3.4 |
| Imports | 16.2 | -1.0 | 0.1 | 6.9 | 7.7 |
| Exports | 18.2 | -0.7 | 0.3 | 6.8 | 7.4 |
| Private consumption | 2.2 | 1.4 | 2.3 | 2.6 | 2.8 |
| Public consumption | -0.2 | 1.7 | 3.1 | 2.1 | 2.5 |
| Private fixed investment | 6.8 | 0.7 | -2.0 | 2.5 | 4.4 |
| Public investment | -6.3 | 3.9 | 4.2 | 2.3 | 0.9 |
| Inventory change + stat discrepancy, % of year-earlier total demand | 0.7 | -0.4 | -0.2 | -0.1 | 0.0 |
| Total demand | 8.2 | 0.3 | 1.1 | 3.9 | 4.5 |
| Final domestic demand | 3.3 | 0.8 | 1.5 | 2.4 | 2.9 |

Key economic indicators

| | 2000 | 2001 | 2002f | 2003f | 2004f |
|-------------------------------------|-------------|-------------|--------------|--------------|--------------|
| %-change | | | | | |
| Harmonised index of consumer prices | 3.0 | 2.7 | 2.2 | 1.6 | 1.9 |
| Consumer price index | 3.4 | 2.6 | 1.9 | 1.7 | 2.1 |
| Level of earnings | 4.1 | 4.5 | 2.8 | 3.7 | 4.4 |
| Labour productivity | 4.4 | 1.0 | 0.7 | 2.4 | 2.3 |
| Unit labour costs | 0.0 | 5.6 | 1.7 | 1.8 | 2.8 |
| Number of employed | 1.7 | 1.4 | 0.2 | 0.7 | 1.4 |
| Employment rate, 15–64 year-olds, % | 66.9 | 67.7 | 67.8 | 68.2 | 69.1 |
| Unemployment rate, % | 9.8 | 9.1 | 9.5 | 9.3 | 8.5 |
| Export prices of goods and services | 4.5 | -2.4 | -0.9 | 1.0 | 2.0 |
| Terms of trade | -2.0 | 0.0 | 0.0 | -1.3 | -0.4 |

% of GDP, national accounts

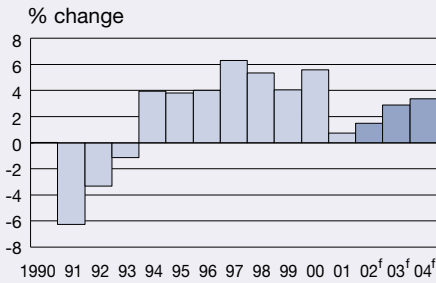
| | | | | | |
|--|------|------|------|------|------|
| Ratio of taxes to GDP | 47.1 | 45.6 | 45.0 | 44.7 | 44.5 |
| General government net lending | 7.0 | 4.9 | 3.5 | 3.5 | 3.7 |
| General government debt (Maastricht definition) | 44.0 | 43.6 | 43.6 | 42.1 | 39.9 |
| Goods account, BOP | 11.4 | 10.5 | 10.2 | 10.1 | 10.3 |
| Current account, BOP | 7.4 | 6.5 | 6.4 | 6.4 | 6.7 |
| Avg interest rate on deposit banks' new loans, % | 5.2 | 5.1 | 4.3 | 4.8 | 5.2 |

f = forecast

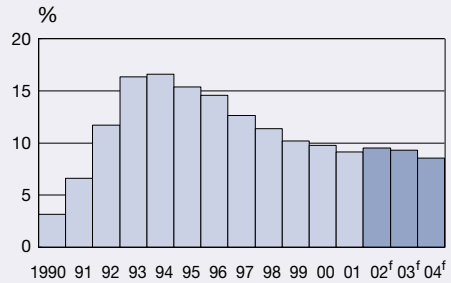
Sources: Statistics Finland and Bank of Finland.

Chart 1. Key economic indicators

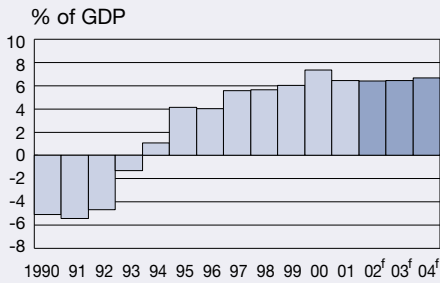
Gross domestic product



Unemployment rate



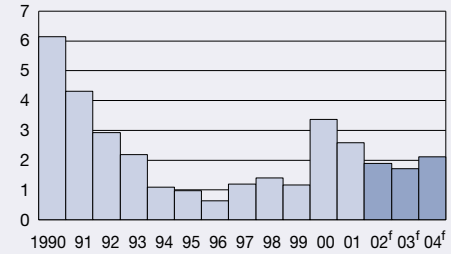
BOP current account



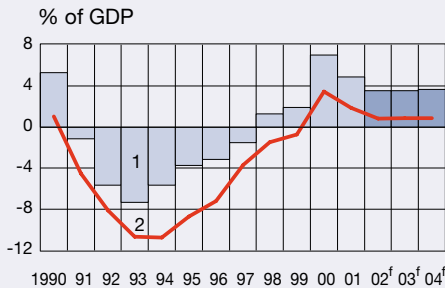
Inflation

Consumer price index

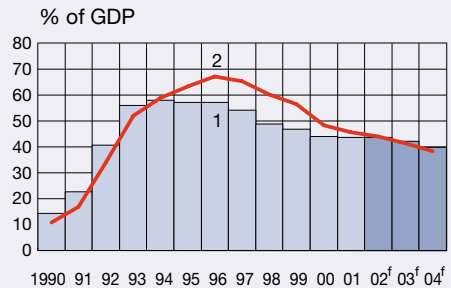
% change



General government fiscal position (Maastricht definition)



General government debt (Maastricht definition)



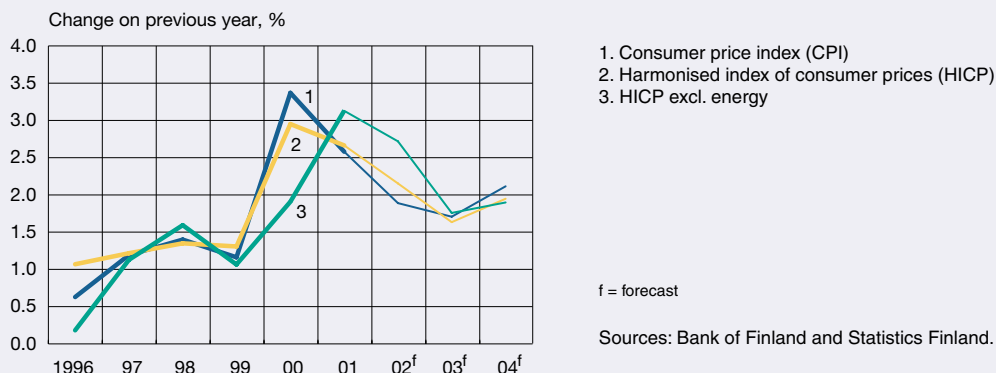
1. General government

2. Central government

f = forecast

Sources: Bank of Finland and Statistics Finland.

**Chart 2.
Inflation**



Commodities (incl. oil) prices, having declined during the world recession, are expected to start trending moderately upward again as world trade recovers. Price developments in industrial products are nonetheless expected to remain benign over the next few years. But goods import prices will clearly rise by more than 2% pa in 2003–2004. The inflation-effect of indirect taxes should be modest over the forecast horizon. An easing of these taxes should have a slight dampening effect on consumer price inflation in 2004.

One of the factors that spurred inflation in 2001, ie the rise in food prices, will have a definite disinflationary impact this year. Consumer price inflation is clearly slowing down in 2002, partly in response to lower capital costs of owner-occupied housing. Last year's decline in interest rates on housing loans will have a disinflationary effect (estimated at nearly a half percentage point) also this year. The rate at which bank loans for housing are raised escalated to nearly 12% in January, and demand conditions in housing markets have kept prices buoyant, especially in the growth centres. In Greater Helsinki housing prices have jumped up in the early months of this year. This may have been caused by the high level of rents and lower interest rates on housing loans. Housing prices for the whole country are forecasted to rise this year at a rate that will keep real prices fairly stable.

The harmonised index of consumer prices (HICP), which differs from the national CPI chiefly in the treatment of owner-occupied housing, escalated from 2.4% pa in December 2001 to 2.9% in January 2002. Owner-occupied housing will continue to have a

disinflationary impact till year-end, mainly because of the current lower level of interest rates on housing loans. This means that in 2002 CPI inflation will remain clearly below HICP inflation. The expected rise in housing prices in 2003 would offset this effect just as interest rates on housing loans are trending modestly upward, so that movements in the two indices will be more closely in sync.

Besides the above disinflationary factors, households' inflation expectations have eased considerably since the start of 2002. At the start of the year, one-year-horizon expectations of inflation dropped by a full percentage point, to about 1.5%. Such a pronounced change in expectations may have been influenced by both the expected near-term sluggishness of economic growth and the muted price impact of the euro cash changeover.

World economy recovering as expected

In recent months, prospects for the world economy have become cautiously optimistic. The slowing of growth that commenced in the first half of 2000 in all the major economic regions was reversed around the end of last year, and now a widespread, albeit gradual, recovery is in progress. Nonetheless, this year's growth rate for the world economy will be slightly lower than last year's (Table 2). The view of the near-term outlook for the world economy has not essentially changed since the Bank published its forecast in December.

Box 1. Recent developments in inflation and inflation pressures

CPI inflation accelerated at the turn of the year by a half percentage point to 2.3% pa.² The average rate of inflation in 2001 was 2.6%, but from late spring till year-end inflation trended downward as result of a decline in energy prices.

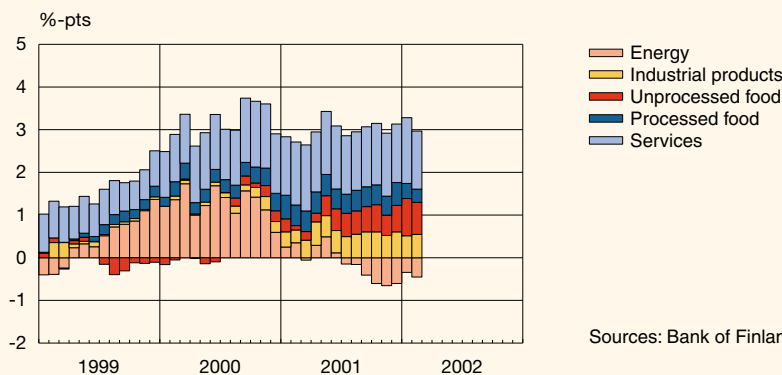
One of the inflationary factors at the turn of the year was the 15%-plus rise in prices of unprocessed foods. This resulted from rising prices of seasonal foods, viz fruits and vegetables, due to cold weather in the producer countries. The rise in meat prices and faster-than-inflation rise in prices of a broad spectrum of dairy products, in connection with animal diseases, were other key factors in last year's rise in food prices. The inflation-effect of rising food prices increased in January 2002 to one percentage point, despite a reduction in the weight of food expenditures in the new base-year-2000 CPI to less than 14%, ie about 2 percentage points less than in the base-year-1995 CPI. However, the 20%-plus rise in prices of seasonal foods in 2001 may turn out to be a temporary phenomenon, followed by a marked slowing already in the spring (Chart 3).

¹ Since Jan 2002, Statistics Finland has published only the new base-year-2000 CPI, for which the commodity basket differs somewhat from that of the base-year-1995 index. The new index is based on 492 commodity categories, ie almost 50 more than in the old index. Data is now collected via almost twice as many marketplace samples and on many more individual products (65,000).

Another factor influencing inflation in January was the slowing of the decline in fuel prices. The downward trend in energy prices has dampened inflation since July 2001 and is expected to continue to do so throughout this year. The rise in prices of industrial manufactures accelerated to 2% pa but, partly due to falling energy prices, the rise also in these prices is expected to level off this year.

Service sector prices, however, had the greatest impact on inflation last year. Even though the weight of housing expenditures has been reduced in the base-year-2000 CPI by two percentage points to less than 20%, these still comprise one of the largest single household expenditure items. The rise in rents boosted the January inflation rate by almost 0.3 percentage point, but at the same time the fall in interest rates on housing loans lowered inflation by a half percentage point. The rise in HICP inflation to 2.9% pa in January is explained partly by adjustments in index weights. As service prices rose by more than 4% pa, the inflation-effect of the rise increased by 0.4 percentage point (to nearly 1.8%) as a result of the weight adjustments. Preliminary estimates indicate that euro price rounding, which was done in both directions, had an overall upward effect on the CPI of only 0.1–0.2 percentage point. A significant part of this effect could derive specifically from the above-mentioned rise in service prices.

Chart 3.
Harmonised index of consumer prices, contributions of main components



Sources: Bank of Finland and Statistics Finland.

Table 2. World economic growth

| | 2000 | 2001 | 2002f | 2003f | 2004f |
|---|------|------|-------|-------|-------|
| GDP, vol, %-change | | | | | |
| Whole world | 4.7 | 2.0 | 1.6 | 3.6 | 3.7 |
| United States | 4.1 | 1.1 | 0.7 | 2.8 | 2.9 |
| Euro area | 3.4 | 1.5 | 1.0 | 2.4 | 2.5 |
| Japan | 2.2 | -0.2 | -0.9 | 1.2 | 1.9 |
| Import, vol, %-change | | | | | |
| Whole world | 12.7 | 0.7 | 0.4 | 6.2 | 6.9 |
| United States | 13.4 | -2.5 | -0.5 | 5.8 | 6.4 |
| Euro area | 10.7 | 1.4 | 1.0 | 5.8 | 6.1 |
| Japan | 9.6 | -0.3 | -5.0 | 1.2 | 3.4 |
| Imports of Finnish major export markets | 11.8 | 2.3 | 1.2 | 6.1 | 6.6 |

f = forecast

Source: Bank of Finland.

Prospects appear to be favourable for the world economy in 2003 and 2004, albeit we are not likely to see growth rates matching those of the late 1990s.³

Slow growth in the euro area and United States, combined with deepening recession in Japan, portend mediocre growth prospects for Finland's export markets in 2002. On the other hand, among Finland's key export markets, the growth of demand in the United Kingdom and Sweden will slow only marginally in 2002 and should gain strong momentum in 2003–2004. Both output and import demand will begin to pick up notably in the Asian emerging economies already this year as the world economy – and especially the ICT sector – recovers. The Russian economy should continue on a favourable path, provided world crude oil prices remain relatively firm. All in all, Finland's export markets should be expanding robustly already in 2003–2004. Nonetheless, it now appears that growth over the forecast period will be slightly weaker than indicated in the Bank's December forecast.

US and euro area economies set for fairly strong growth in the latter part of the year

Recent US economic indicators have firmed the notion that the country's economy is turning upward. The recession that began a year ago is forecasted to remain fairly mild compared to earlier ones. On the

other hand, the recovery is progressing slowly. Private consumption has remained firm despite the shock to household confidence in connection with the terrorist attack and an increase in unemployment. Since the end of 2001 public sector demand has provided much additional support to the economic recovery. Investment demand is being constrained in the early part of 2002, inter alia, by an exceptionally low level of capacity utilisation. US economic growth is forecasted to accelerate to 3% pa during the forecast period.

The euro area economy has been more or less at a standstill since 2001 Q2. Some of the reasons for the slowing of growth are worldwide in scope. The rise in the price of oil resulted in an income transfer from households and companies in oil-importing countries to oil-exporting countries. Conditions in the ICT sector generally weakened, and share prices turned down in various marketplaces around the world. Growth in the euro area has slowed in terms of export activity, private consumption and investment, which has exacerbated the employment situation. Growth is forecasted to pick up again in the spring and summer months, as export markets recover and lower oil prices raise the level of real disposable income. The growth rate for the euro area will increase to close to 2.5% pa during the forecast period.

Monetary policy in both the euro area and the United States has had a supporting effect on confidence in the private sector. Productive investment, on the other hand, could stay depressed for some time because of existing excess capacity, especially in the United States but also in the euro area, in spite

³ The world economy forecast is from Bank of Finland estimates, based on data available at 15 Feb 2002.

of the low level short-term interest rates. Investment is also constrained by the fact that long-term interest rates, which are crucial for companies' financing costs, have not actually declined since the start of 2001, despite the gradual lowering of policy rates (Chart 4).

One technical assumption underlying the forecast is the use of expectations of market interest rates calculated on the basis of interest rate futures and changes in exchange rates based on differentials in expected interest rates (Box 2). According to end-February market data, short-term interest rates are expected to turn upward in the euro area and United States during the forecast period. This suggests that market participants are highly optimistic as to the speed of recovery of the US economy. The euro's external value is expected to remain close to its present – rather weak – level vs the US dollar.

In the United States, fiscal policy has been used to prevent the recession from affecting private demand, viz household consumption, and this has resulted in a balance-to-deficit shift in the federal budget. In many euro area countries public finances have weakened alarmingly vis-à-vis stability programme targets; deficits in several countries have increased nearly to maxima defined in the Stability and Growth Pact. This could be a factor in the euro's weakness. Japan's economic situation is still a source of serious concern. There is little room for monetary manoeuvre with interest rates virtually at zero and, moreover, fiscal policy is constrained by the central government's mounting indebtedness. Households

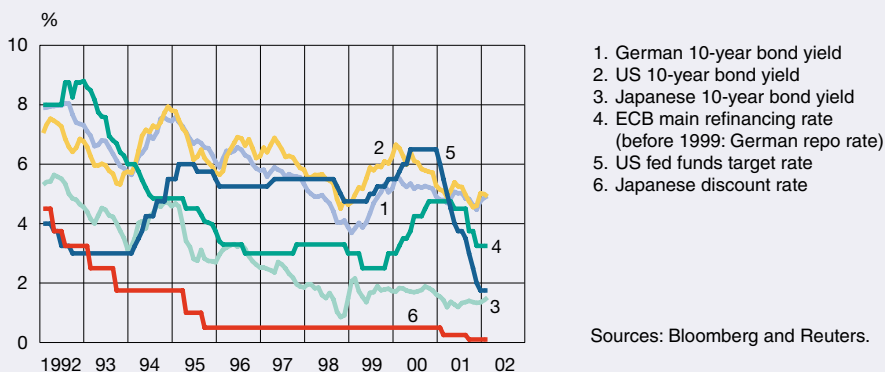
remain cautious, as realisation of necessary structural reforms means further exacerbation of the economy's deflationary tendencies. The yen's depreciation in recent months, vs the euro and the dollar, could have a minor positive effect on economic growth, but stable economic performance requires structural reforms in the financial markets and elsewhere.

Prices of oil and other basic commodities to rise moderately

The price of crude oil fell to less than USD 20 per barrel at the end of last year. Market expectations – based on February's futures prices – do not indicate any notable rise in the price this year, as upcoming deliveries are priced at just over USD 20. The real price of oil is now exceptionally low. Oil prices have a tendency to rise when the world economy starts to expand. The forecasted path of the price of oil for the current year follows the quotes on oil futures, and starting at the onset of 2003 the price of oil is expected to rise gradually to a level of about USD 22–23 by the end of the forecast period in 2004.

The prices of other commodities are also currently at fairly low levels. Prices of industrial commodities began to rise at the start of the year. In the course of the forecast period, prices of commodities and industrial inputs should rise faster than prices of industrial products. Prices of industrial products have been steady for a number of years, nor is any notable rise in the offing.

Chart 4.
Policy rates and long-term interest rates



Sources: Bloomberg and Reuters.

Box 2. Forecast assumptions

World trade and import prices

Assumptions regarding Finland's key export markets and import prices are based on estimates of world economic performance (Table 3). Growth of import activity in Finland's export markets will slow to 1.2% in 2002 and accelerate to 6–7% in 2003–2004. It is assumed that the price of crude oil will gradually increase to USD 22–23 per barrel. Prices of non-oil commodities also are expected to start to increase this year and prices of industrial products will continue on a modest upward trend. Because of a precipitous decline in 2001, import prices are expected to decrease on average again in 2002. In 2003 and 2004, as world trade increases and com-

modity prices move up, import prices should increase by somewhat more than 2% pa.

Assumptions regarding interest rates and exchange rates taken from market expectations

The three-month money market rate and long-term interest rates are assumed to match corresponding expectations prevailing in the money and currency markets on 28 Feb 2002. Thus the assumptions regarding interest rates and exchange rates are purely technical; no attempt is made to predict future ECB Governing Council interest rate decisions or estimate the equilibrium exchange rate. Expectations

Chart 5.
3-month interest rates and market expectations: selected currencies

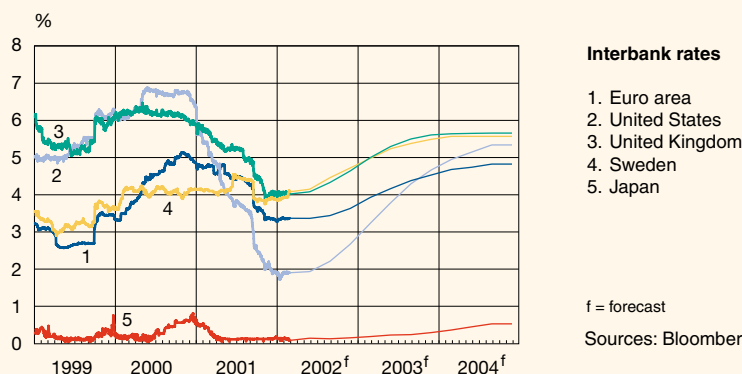


Chart 6.
Expected exchange rates

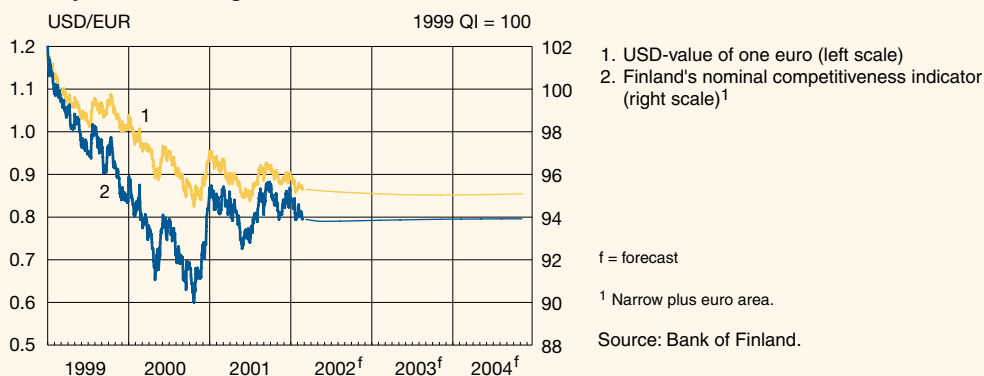


Table 3. Forecast assumptions

| | 2000 | 2001 | 2002f | 2003f | 2004f |
|--|------|------|-------|-------|-------|
| Import volume in Finnish export markets, % change | 11.8 | 2.3 | 1.2 | 6.1 | 6.6 |
| Finnish import prices, % change | 6.9 | -2.2 | -1.1 | 2.0 | 2.3 |
| Oil price, USD per barrel | 28.3 | 24.4 | 20.3 | 21.1 | 22.1 |
| 3-month EURIBOR, % | 4.5 | 4.3 | 3.6 | 4.2 | 4.8 |
| Yield on taxable 4–5 year government bonds, % | 5.3 | 4.5 | 4.7 | 5.1 | 5.3 |
| Finland's nominal competitiveness indicator ¹ | 94.4 | 94.4 | 93.8 | 93.9 | 93.9 |
| USD-value of one euro | 0.90 | 0.90 | 0.86 | 0.85 | 0.85 |

¹ Narrow plus euro area, 1999 Q1 = 100.

f = forecast

Sources: Bank of Finland and Statistics Finland.

are calculated on the basis of publicly quoted interest rate futures⁴. Short-term market interest rates are expected to increase to a level of about 5%

(Chart 5). On the basis of these interest rate expectations, the USD-value of the euro⁵ will remain fairly steady and Finland's nominal competitiveness indicator should remain quite stable (Chart 6).

⁴ 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 2002 (see Seppälä – Viertiö, *The Term Structure of Interest Rates: Estimation and Interpretation*, Bank of Finland Discussion Papers 19/1996).

⁵ Expected future paths of exchange rates are calculated on the basis of uncovered interest rate parity using exchange rates quoted on respective dates and expected interest rate paths. These assumptions are purely technical and do not entail a view as the euro's equilibrium exchange rate.

Exports on the rise as world trade recovers

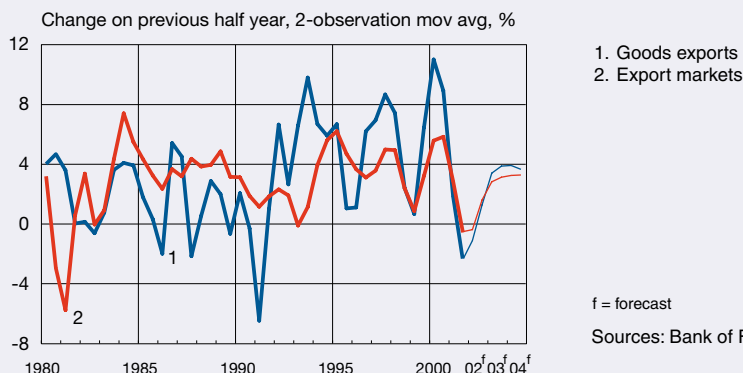
For Finnish exporters, 2001 was a difficult year that followed several years of rapid growth that had outpaced the growth of the export markets. The volume of goods exports fell for the first time since 1991, albeit there was a pickup toward year-end. At the same time, export markets were expanding, and thus Finland's share of the total market decreased. Despite the decline in export volume, export activity in many sectors, eg engineering works, remained brisk in 2001.

The forest industries experienced a particularly sharp drop in export volume. Prices of forest products, however, remained fairly high compared to previous years. Paper prices have stayed high, despite the weak demand, and hence no pronounced price rise is likely even if demand picks up as forecasted. Although the exchange rate partly explains forest industries' strong profitability, their self-imposed production constraints have also had an impact. Market conditions in

electronics products have also come under pressure. World trade in mobile phones is no longer growing as fast as before, and network-related investment is on hold because of teleoperators' profitability problems.

Conditions in the export markets are however starting to clear up, and the first signs of a demand recovery are already visible. Activity is however expected to remain subdued in the early part the year, in both the forest and electronics industries. Christmas sales of mobile phones are over, and apparently first-quarter network-related deliveries will be modest. By summer, sales of electronics products will begin to improve, as import activity picks up in both the United States and the euro area. Mobile phone sales will regain momentum as new models are introduced, and network deliveries from Finland will also pick up. It is true that teleoperators' profitability problems will affect the network markets for some time yet. Forest industry exports will begin to recover in the coming months, and exports of other sectors should pick up toward year-end.

Chart 7.
Finnish exports and markets



Competitiveness of Finnish exports, in all the main sectors, is still good. Cost pressures have been kept under control, and price competitiveness in terms of unit labour costs should remain firm, assuming the euro does not appreciate substantially. With ample industrial production capacity, there is nothing standing in the way of export expansion. Capacity constraints could however become a concern at the very end of the forecast period in 2004.

According to the forecast, export growth will overtake the growth of export markets already in the latter part of this year (Chart 7). Thanks to good competitiveness and an industry structure that matches demand, the growth of Finnish exports will continue to outpace that of export markets in 2003 and 2004. In contrast to previous decades, Finnish industry is now producing goods for which demand is growing faster than the overall average.

Compared to earlier growth periods, export prices are estimated to rise at a more subdued rate. Price stability is already firmly fixed in expectations in the industrial countries, nor is there reason to look for speculative price spikes in the commodities markets. For the same reason, last year's decline in export prices was moderate. Due to rapid improvements in productivity, export prices of electronics products are in fact expected to continue trending downward, albeit the forecast indicates that the pace of decline will be slower than in recent years.

Cross-sector differences in growth rates will not be as wide as during the previous long boom period. The growth rate for exports of electronics products is expected to decelerate notably from rates that pre-

vailed in the 1990s, partly due to a growth slowdown right across the markets and partly to rapidly increasing deliveries by Finnish companies from other countries. In the coming years, forestry industry export activity will be abetted by available capacity, but growth there could considerably lag behind that of the export markets. Adjustment of output to market conditions will continue to buoy prices and hence profitability. Other export sectors are expected to grow in line with the export markets.

Stable growth of households' income and consumption

Private demand should follow a steady 2.5% pa growth path during the forecast period. Steady growth of real disposable income supports consumption, and sales of durable goods could revive this year, led by a pickup in car sales. Even though wage developments are expected to remain moderate, tax cuts, income transfers to households, and slowing inflation will ensure that households' real disposable income increases as rapidly as in 2001. Overall, real income should follow a steady path during the forecast period (Chart 8).

Consumers' confidence in the performance of the Finnish economy has been at a high level around the turn of the year, compared to low point reached in summer 2001. In Statistics Finland's February consumer confidence survey, nearly 30% of respondents expected an improvement in their own finances during the next year. Consumers' confidence in their own

Box 3. Changes in growth driven by exports

GDP will start to grow in the early part of 2002 and by the latter part of the year will be growing at a robust rate. Growth will strengthen gradually, to reach 3.4% pa in 2004. The calculation presented in Table 4 describes the structure of the growth. The gradual strengthening of domestic demand will support growth during the forecast period. Consumption will be an important factor in all years of the forecast period, whereas investment will at first have a negative effect and later only a small positive effect. The growth-contribution of net exports – ie exports minus imports – will be roughly nil in 2002, as in 2001, but significant in 2003 and 2004.

The calculation, however, is static and could well understate the importance of exports. Export demand affected cyclical conditions during the recession to a greater extent than the other demand components, and recovery is likewise driven largely by export activity. Household consumption is affected by the outlook for income. As regards companies' investments, the key demand and profitability expectations are based largely on their estimates of export market growth and Finnish companies' ability to hold on to their shares of those markets.

Table 4. Growth components

| % of year-earlier GDP | 1996–2001 | 2000 | 2001 | 2002f | 2003f | 2004f |
|---|-----------|------|------|-------|-------|-------|
| | avg | | | | | |
| Real GDP | 4.3 | 5.6 | 0.7 | 1.5 | 2.9 | 3.4 |
| Net exports | 1.2 | 2.6 | 0.0 | 0.1 | 0.8 | 0.8 |
| Domestic demand excl. inventory change | | | | | | |
| excl. stat discrepancy | 3.3 | 2.0 | 1.2 | 1.5 | 2.1 | 2.6 |
| <i>of which:</i> Consumption | 2.2 | 1.1 | 1.0 | 1.8 | 1.7 | 1.9 |
| Investment | 1.1 | 0.9 | 0.2 | -0.2 | 0.4 | 0.7 |
| Inventory change incl. stat discrepancy | -0.1 | 1.0 | -0.5 | -0.2 | -0.1 | 0.0 |

f = forecast

Sources: Bank of Finland and Statistics Finland.

finances has stayed persistently at a very high level. As regards the employment situation, consumers are still pessimistic: over 40% expected unemployment to increase during the year.

Household disposable income will increase by 4.5– 5% pa over the forecast period. In 2002 wages and other factor incomes will increase by less than in the rest of the forecast period, but the cut in income taxes will smooth households' income path. Growth of the wage bill will slow considerably compared to last year, as wage drift decreases and labour input increases only slightly. But in the following years the wage bill will grow at an increasing rate, as working hours increase faster and wage drift increases. Dividends will also regain momentum toward the end of the forecast period. The asset-price effect of moderately increasing housing values on consumption is expected to remain fairly steady.

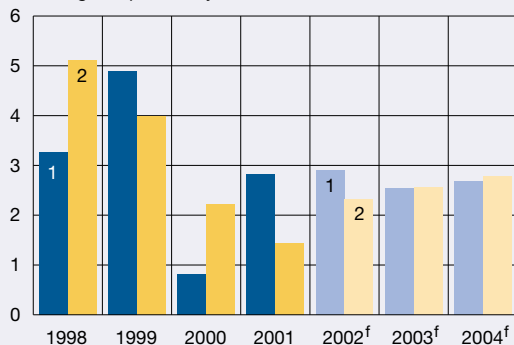
The household saving rate should hold steady at about 4.8% over the forecast period. The saving rate turned upward last year, partly due to uncertainty associated with economic performance and increased risk of unemployment. The saving rate is expected to increase again this year, for the same reasons, but by less.

Weak investment demand

The effects of an export recession on domestic demand are particularly apparent in a decrease in the propensity to invest. It has been possible to postpone investment plans because there is still a large amount of excess production capacity. Findings from an investment survey conducted by the Confederation of Finnish Industry and Employers and published in

Chart 8.
Household income and consumption

Change on previous year, %



1. Households' real disposable income
2. Real private consumption

f = forecast

Sources: Bank of Finland and Statistics Finland.

January indicate that the outlook for demand is crucial for investment decisions in 2002. On this basis, it is estimated that private fixed investment will gain momentum toward year-end. Growth of investment will continue into 2003 but at a moderate pace. A pronounced pickup is not expected until 2004.

The expected real interest rate, which is a key factor in the demand for investment, will rise slightly toward the end of the forecast period as economic growth accelerates. A number of large capacity-enhancing investment projects in basic industry are at or near completion, and the big companies are not inclined start up any new major investment projects. Building of a network for third-generation mobile phones – a large infrastructure investment – will probably be spread out over several years. Thus the growth of private fixed investment will be quite subdued over the course of the forecast period. Another consideration here is that R&D investment continues to grow relative to total investment. Moreover, many companies have increased their production capacity abroad to a greater extent than in Finland, and the trend appears set to continue in the coming years.

Investment in housing construction will in the course of 2002 gradually move onto a path of accelerating growth that should continue in 2003–2004. The slowness of planning and a shortage of building sites in Greater Helsinki and other growth centres will however constrain housing construction in the near future and widen the regional differences in housing prices. The former construction bottleneck – a shortage of skilled manpower – has been removed, so that it is possible for construction start-ups to keep pace with growing demand.

Positive developments in household income are bolstering housing demand. The effect of the modest rise in the real interest rate on housing investment during the forecast period will be cushioned by the lengthening of loan repayment periods. The rate of increase in housing prices will pick up somewhat toward the end of the forecast period as a result of growing demand. Likewise, construction costs will continue to trend only moderately upward, so that construction companies' profitability should hold fairly steady. Migration within Finland and a general need to upgrade housing are the prime factors that will buoy housing demand in the coming years, when households' income prospects are good.

Bank lending on a firm growth path

The interest rate path used in the forecast is taken directly from market expectations as reflected in the yield curve at the end of February. On this basis, interest rates on new bank loans are assumed to increase in line with market rates, from just over 4% to about 5.5% by end-2004. The average interest rate margin, ie the difference between banks' lending and funding rates, is assumed to remain unchanged over the forecast period, as is the difference between rates on new loans and market interest rates.

Bank lending to the private sector will increase more slowly in 2002 than in 2001, after which demand will increase somewhat. Household borrowing will remain at a high level and the ratio of bank lending to disposable income will increase, thus reflecting consumers' optimistic outlook regarding in-

come developments. Companies will try to further reduce the external capital on their balance sheets, which will be reflected in the moderate growth of their borrowing from banks. Growth of corporate borrowing will be particularly sluggish in 2002, in line with subdued corporate investment.

The stock of deposits will grow by slightly less than the lending stock. Deposit growth will be modest over the next few years – only about 4% pa – due to the increasing attractiveness of alternative investment outlets.

Unemployment will remain high

The decline in exports and industrial production slowed the growth in employment last year, albeit employment did increase in the latter part of the year as jobs increased in the wholesale and retail trade sectors. Numbers of jobs have also increased in the finance and insurance sector and also in public services. Employment declined in the industrial and construction sectors during 2001, nor have prospects for the rest of this year actually improved. Moreover, employment conditions have continued to weaken in agriculture and forestry, in connection with ongoing economic restructuring.

Developments continue to differ across, and even within, industrial sectors. Based on the results of a survey of business confidence conducted by the Confederation of Finnish Industry and published in January, one-fourth of industrial companies expect employment conditions to weaken this year. The Tendency Survey for February indicated continued weakening, thus reinforcing the directional outlook. However, it is likely that job losses in industry will remain quite modest.

Demand in the domestic markets has held firm, and steady strengthening is forecasted for the whole forecast period. In light of the forecasted ending of the export recession in the latter part of this year, it seems unlikely that weakening employment conditions will pose a serious threat to consumer confidence. It is expected that the unemployment rate will increase to 9.7% toward the end of 2002. The number of unemployed will not decline until 2003 without significant labour market reforms that reduce employment costs compared to forecasted levels. It is assumed that the labour force will increase moder-

ately during the forecast period. The rising trend in the employment rate, however, will come to a virtual halt for several years before turning up moderately at the end of the forecast period.

Surging wage and salary costs

The wage bill has been increasing rapidly in the last few years. The pronounced slowing of labour productivity growth as export demand collapsed and domestic demand decelerated resulted in a significant increase in unit labour costs throughout the economy. This year's general wage agreements entail 2%-plus increases, whereas wage drift is expected to be modest, at just below 1%. Labour costs are further constrained by a small reduction in social security contributions. Despite the gradual export recovery, productivity growth will remain modest in 2002, and unit labour costs are expected to rise by 1.5%.

Forecasts of earnings levels for 2003 and 2004 indicate increases of 4% pa. Average hourly wages will grow slightly faster as cyclical conditions improve. Although productivity growth should recover as export activity moves onto a fairly strong growth path, the increase in economy-wide unit labour costs will escalate to 2–2.5% pa. By European standards, such cost developments are not particularly moderate.

According to the forecast, the export-share of total production will remain high, as in recent years, and it is assumed that the ICT sector will continue its rapid growth in the coming years. Economy-wide labour productivity is estimated to continue to grow at nearly the same rate as output, ie 2.5% pa in 2003 and 2004. This robust-by-European-standards productivity growth could be even stronger if 'new economy' phenomena strengthen compared to forecast.

Continuing large surplus on BOP current account

Although the surplus on the goods account was smaller than the peak level of 2000, it should stabilise at just over 10% of GDP. This will be the case even though the terms of trade (ratio of export to import prices) are expected to weaken slightly during the forecast period.

The current account will continue to post surpluses of about 6.5% of GDP over the next few years.

The deficit on current transfers and factor income should hold fairly steady in the neighbourhood of 2% of GDP. The ratio of dividends paid to nonresidents to residents' income on foreign direct investment is expected to remain stable. Dividend payments to nonresidents will be smaller in 2002 and 2003 than in recent years, as company profits fall from peak levels of 2000. The ratio of net investment income to GDP will remain stable. The current account surplus will be reflected in financial surpluses in the household, corporate and general government sectors during the forecast period. The corporate sector surplus will increase during the forecast period, largely because of very subdued investment activity, and the household sector surplus should remain steady. The general government surplus has declined from the peak level of 2000 but will stabilise at 3.5% of GDP, largely because of surpluses generated by social security funds.

General government surplus to decrease and central government debt to decline only marginally

General government consumption and investment expenditures will grow rapidly, mainly because of statutory obligations. Expenditure growth will strain local government finances and create pressure for increases in both tax rates and debts. The central government's surplus-to-GDP ratio will decline by 2.5 percentage points between 2000 and 2002. The economic upturn will not improve the situation. Slower-than-forecast economic growth or smaller-than-assumed corporate tax revenue could easily shift central government finances into deficit.

The general government surplus is larger here than that targeted in the Government's stability programme update of November 2001, due mainly to the fact that economic growth and especially employment improve faster in the Bank's forecast than in the stability programme. On the other hand, central government expenditure for 2002 exceeds the initial spending targets of the Government's programme, nor is it assumed in the forecast that expenditure policy will in future be tightened, contrary to estimates in the Government's stability programme.

The ratio of general government surplus to GDP is expected to decrease to about 3.5% in 2002 and to

remain stable in 2003 and 2004 (Table 5). Central government finances should be narrowly in surplus, as growth of tax revenue offsets increases in expenditure and disappearance of one-off revenue items. Local governments, in contrast, will remain slightly in deficit. Social security funds' surplus will remain on a par with those of recent years. It is assumed that there will be no privatisation income during the forecast period, so that central government debt declines only slightly. The ratio of central government debt to GDP is projected at 38% for end-2004. The general government debt (Maastricht definition) will fall by somewhat less, to 40% by 2004.

Normalisation of tax revenue

Revenue from taxes on earned income will decrease slightly this year because of tax cuts and disappearance of one-off income items. Tax cuts in 2002 amount to just over 1% of the wage bill. With wage income expected to continue to surge in 2003 and 2004 and only inflation adjustments assumed for tax tables, revenue from taxes on wages should again increase rapidly. Revenue from corporate taxes will increase in 2002 because of some shifting of tax withholdings payments from 2001 to 2002. It is assumed that corporate tax revenue will increase in 2003 and 2004, with companies' financial results already improving substantially.

All in all, revenue from income and wealth taxes will increase only slightly in 2002, but in 2003 and 2004 the increases should be about 5% and 6% respectively. The breakdown of tax revenue sharing will change in 2002. Changes in the VAT system will increase local government revenues⁶, and the central government will offset revenue losses by reducing the local government apportionment of corporate taxes, from the 2001 level of 35% to 23% at the start of 2002. Revenue from taxes on production and imports will increase more slowly than private consumption, especially in 2004, when taxes on alcohol and tobacco are reduced as part of the removal of internal EU import barriers. Indirect labour costs will decline in 2002, by almost EUR 0.5 billion, and then increase slightly in 2003 and 2004. Employees' social security contributions will decline in 2002, as a result of a reduction in pensioners' health insurance premiums.

Table 5. General government financial balance, % of GDP

| | 2000 | 2001 | 2002f | 2003f | 2004f |
|---------------------------------------|------------|------------|------------|------------|------------|
| General gov revenue | 55.4 | 54.1 | 53.4 | 53.2 | 52.8 |
| General gov expenditure | 48.4 | 49.2 | 49.9 | 49.7 | 49.2 |
| General gov primary expenditure | 45.5 | 46.5 | 47.4 | 47.2 | 46.8 |
| General gov interest expenditure | 2.8 | 2.7 | 2.6 | 2.5 | 2.4 |
| General government net lending | 7.0 | 4.9 | 3.5 | 3.5 | 3.7 |
| Central gov | 3.4 | 1.9 | 0.8 | 0.8 | 0.8 |
| Local gov | 0.2 | -0.3 | -0.2 | -0.3 | -0.1 |
| Social security funds | 3.3 | 3.3 | 3.0 | 2.9 | 3.0 |
| General gov primary balance | 9.8 | 7.6 | 6.1 | 6.0 | 6.0 |

f = forecast

Sources: Bank of Finland and Statistics Finland.

Public spending is accelerating

Central government expenditures will increase in 2002 by more than in recent years. Budget appropriations will increase, inter alia, for prevention of poverty and social exclusion and for higher levels of unemployment compensation. The number of active labour market measures will also be increased, and provision is made for spending on road and rail investments. In 2003 there will be additional spending in connection with reform of the unemployment compensation system, but otherwise the forecast assumes no new discretionary spending in next year's budget. Central government wage and salary expenditure is expected to increase in line with the rise in the earnings level, as it is assumed that the number of central government employees will not increase. A slight improvement in the employment situation will reduce expenditures on unemployment compensation and subsistence support. It is assumed that in 2004 some increases in discretionary spending will occur, eg in certain long-unchanged welfare payments such as child allowances and study grants. Central government grants to local governments will increase sharply this year because of changes in the VAT system, and bringing forward of cost sharing of central government grants to local governments. In 2003 central government grants will increase again by about 8% and in 2004 by 12%. Local government tax revenues are inadequate to cover increases in their consumption and investment expenditures. Central government investment will increase slightly this year due to budgetary decisions on road projects, whereas interest expenditure will decrease slightly.

Local government expenditures are projected to increase faster than before. The greatest pressures will be on health care and social services, which are suffering from labour shortages and which will demand a growing share of total expenditures as the population ages. An assumption underlying the forecast is that local governments will increase their numbers of employees, especially toward the end of the forecast period. These employment increases, combined with wage hikes, will boost local government consumption expenditures, particularly in 2003 and 2004. Local government investment expenditures are also set to increase substantially.

Social security expenditures will increase along with increasing numbers of pensioners, a rising pension index, and effected improvements in unemployment compensation. Employment pension benefits will increase on average by about 5% pa over the period, 2002–2004. The TEL pension index will rise by about 2% pa and the number of pensioners by about 1.5%. Employment pension expenditures will be boosted by the growing proportion of persons receiving full employment pensions, which will in turn reduce national pension expenditures. The reform of unemployment compensation agreed in connection with the 2002 budget will boost earnings-related unemployment compensation in 2003, but the total expenditure will decline as the employment situation gradually improves.

On the whole, public expenditure growth will escalate somewhat during the forecast period. The ratio of primary expenditure to GDP will increase by one percentage point in 2002, about half of which is accounted for by technical factors related to sharing

of VAT revenues. As output growth picks up in 2003 and 2004, the public expenditure-to-GDP ratio will decline but remain at above that of 2001.

Forecast risks

It appears that estimates made last autumn on the length and depth of the world economic recession are thus far largely in line with the outcome. Growth prospects for the world economy are now cautiously optimistic, and the US economy in particular appears to be growing again. The ongoing problems of Japan and Latin American countries do not alter the generally favourable short-term outlook. Expectations of growth recovery, as reflected in market interest rates, point to monetary tightening by the end of this year. It is thus estimated that the US and euro area economies moved into recovery phase at the turn of the year. The strength of the recovery, however, is still highly uncertain and the risks are substantial. Over the short-run, the risks are two-way: Based on recent economic news, growth could accelerate faster than forecasted, but there is some risk that investment demand in particular, but also private consumption, will not pick up as expected. In the latter case, world economic growth would slow down again temporarily and for the year as a whole economic performance would be lacklustre.

The medium-term outlook for risks associated with world economic performance has not changed from that presented recently by the Bank. Japan's economic problems, which could foment a crisis, pose a risk to the world economy. The US economy is also plagued by imbalances – especially increasing household indebtedness and more generally by a growing BOP current account deficit – which will prevent it from achieving growth rates similar to those of the late 1990s. If US total productivity growth does not return to rates commensurate with 'new economy' and ICT investment prospects, the private sector will have to reduce its indebtedness by cutting down on consumption and investment. The consequences for the euro area would be felt via trade flows and capital markets. Slower US economic growth and reduced expected returns on dollar investments could lead to a sharp decline in the external value of the dollar. This would reinforce the above-mentioned effects and would also have significant consequences for a re-evaluation of Finland's economic prospects.

Compared to last autumn, Finland's near-term export prospects have cleared up considerably. For example, conditions in the electronics products market are already stabilising. From Finland's perspective, there remains the threat that production will move abroad to a greater extent than assumed. For companies, locating production closer to customers can bring competitive advantage, as will a simple shifting of production to low-labour-cost countries.

One of the risks facing the export industry is the possibility of a sharp appreciation of the euro, for whatever reason. Even though export companies have improved notably in terms of flexibility and efficiency, euro strengthening would most likely mean a reduction in the growth of export income. Within a short time, the weakening of profitability via the export-price effect would probably also be reflected in the volume of exports. There is still sufficient reason to prepare for a possible euro appreciation – rather than risk losing the edge in cost awareness.

On the other hand, exports could develop more favourably than forecasted here. China's membership in the WTO and other factors that promote world trade could put Finland too back on a double-digit export growth path. Adoption of the single currency has removed one of the barriers faced by small and medium-size companies that want to trade more extensively with euro countries.

The Finnish economy also faces risks that are independent of the broad performance of the world economy. Often changes – sometimes abrupt – in demand conditions in certain key export areas or in competitive conditions have had large repercussions for Finland's overall success in exporting and hence for the whole economy. Even though the structure of Finnish exports is now broader than has historically been the case, equally significant changes are sure to happen again in the future.

In recent years inflation has been higher in Finland than in the rest of the euro area. However, the near-term inflation outlook is benign. The inflation pickup that occurred around the turn of the year was a temporary phenomenon. Inflation as measured by the harmonised index of consumer prices (HICP) is expected to drop below 2% pa after mid-2002. Toward the end of the forecast period, inflation pressures should be quite muted, in which case HICP inflation would stay close to 2%. The risk of inflation moving above forecast is linked to import prices and labour costs.

A faster-than-expected recovery of the world economy could pull prices of oil and other commodities higher than forecasted. Labour costs are forecasted to rise quite moderately, which is also key to the projected inflation path. Heightening of competition is a significant structural aspect of price developments, as it will mute the possibilities of passing costs through to prices. It also means that excessive wage hikes will exacerbate the employment situation more quickly than before.

It has become clear that the general government fiscal position is vulnerable to fluctuations in one-off factors that affect tax revenues. Recent years' one-off revenue increases and privatisation income from large-scale selling of government assets have painted an overly optimistic picture of central government finances. Despite growth of the central government surplus, there was little improvement in 2000 and 2001 in the cyclically-adjusted budget balance. Although economic growth is forecasted to return to its long-run average, central government finances will be only slightly in surplus and the debt ratio will decline sluggishly. It would in fact be risky to continue with the present fiscal policy stance in the coming years because, if the increases in economic growth and employment are slower than forecasted, the central government debt ratio could start to rise again.

Challenges of economic policy in light of the forecast

Extensive spreading of the recession that began in spring 2001 into the domestic markets has been for the most part averted, as export weakness seems to have been a temporary phenomenon and medium-term income expectations have not significantly changed. However, structural weaknesses in the Finnish economy have become clearly visible as growth has slowed, and redressing the imbalances has been left half done. This is evidenced by the halt in employment growth, rapid fluctuations in the central government fiscal position, lodging of the tax ratio at a high level, the central government debt ratio, and increasing spending pressures.

Unemployment has remained at a high level and there is a danger that near-future employment developments will be lacklustre. Unemployment has not yet increased as much as was feared, thanks in part

to stable conditions in the domestic markets, financial strength of export companies, and income expectations that have thus far remained positive. Unemployment, however, increases with a lag, and the unemployment spell is lengthening just as regional differences in unemployment are widening. Downward trending unemployment in 2003–2004 would require, in addition to moderate wage developments, further progress in labour market reform.

The crucial issue in central government finances is finding the right balance between debt repayment and tax easing. If we want to raise the employment rate, tax cutting cannot depend on the surplus target. Received wisdom asserts that easing taxes on work spurs economic growth in the long run, which would fortify public finances against the spending pressures of population ageing. But the growth-effect of tax easing is difficult to estimate. As tax competition increases, it is also possible that tax easing will become axiomatic. If a high tax ratio drives highly educated people and companies out of the country, it will permanently weaken the tax base and reduce tax revenues.

Since there is no real alternative to tax easing, central government finances will remain in balance only if expenditure growth is restrained. The problem, however, is how to control expenditures of the whole general government sector. The recent weakening of economic conditions clearly exposes financial leakage via the local governments. The exceptionally favourable revenue developments did not result in a surplus for the local government sector, which would have served as a buffer for the current cyclically-induced revenue shrinkage. If local governments cannot adjust their expenditures via efficiency improvements, pressures will mount again for tax tightening. In this event, central government fiscal discipline will not guarantee resilience of general government finances, nor consistency of tax policy.

15 March 2002

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

Spending limits and fiscal discipline in euro area countries

by **Anne Brunila**, Adviser to the Board
and **Helvi Kinnunen**, Senior Economist
Economics Department
Bank of Finland

The credibility of the single monetary policy within the euro area is closely tied to fiscal policies that are disciplined and supportive of stable growth and employment. In order to obviate the typical fiscal policy errors of the 1970s and 1980s – pro-cyclicality, chronic deficits and expanding public debts – the EU member states considered it appropriate to put constraints on national fiscal policies via a set of common rules. The Maastricht Treaty prohibits general government deficits in excess of 3% of GDP, and the Stability and Growth Pact requires the general government fiscal position to be close to balance or in surplus over the medium term. The aim of these rules is to ensure strong government fiscal positions that enable the replacement of pro-cyclical fiscal policies with policies that promote stable economic growth and employment.

The prime factor behind the large deficits and indebtedness of recent decades is rapid growth of public spending, which has not been fully offset by tax tightening over the same period. Because control of public spending has emerged as the key factor in maintaining budget balance and also promotes the aims of the Stability and Growth Pact, many countries in the euro area as well as elsewhere incorporated multiyear spending limits into their fiscal policy decision-making and annual budget processes in the 1990s. Adopted spending limits have generally been strict so as to enable tax easing without compromising fiscal balance. Long-run sustainability of public finances will also require continuous spending discipline, so that expenditures connected with population ageing can be financed without excessive tax tightening in the coming decades.

The use of rules to promote fiscal discipline is not confined to the launch of EMU. Practical experience with fiscal policy regimes has cumulated for decades in many countries. The best known exam-

ples are balanced budget rules, which limit states' public debts in the United States, and the 'golden rule' – by which borrowing is allowed only to finance public investment – applied in German *länder* and in the United Kingdom.

Definitions of expenditure limits and commitment vary across euro area countries

In euro area countries spending ceilings and targets have been defined in terms of either real or nominal annual growth rates. The real annual growth targets vary from zero (Finland, 1999–2003) to 1.3–1.5% (Belgium, Netherlands, France). In Germany, public expenditures can grow at a nominal rate of 2% pa.¹ Portugal has set a target of 4% pa nominal growth of primary general government expenditure. The Italian Government's budget plan includes four-year targets for the main budget items, which include ratios to GDP of general government deficit, expenditure and revenue. Ireland is applying three-year targets for various expenditure categories.

In practical terms, the difference between real and nominal expenditure ceilings is significant only if the underlying inflation projection is erroneous. Because an expenditure ceiling defined in real terms does not depend on the rate of inflation, nominal public expenditures and deficits may exceed targets when inflation is higher than projected. Nominal expenditure ceilings, on the other hand, force the adjustment of expenditures as inflation accelerates and help to stabilise the economy, especially when a pickup in inflation is caused by growth in domestic demand.

¹ Expenditure growth targets vary across states, from 1% to 2%. Growth of (nominal) federal government expenditure is limited to 0.8% pa over the period 2002–2005.

A nominal limit also forces adjustment of real expenditures when increases in public sector wage expenditures exceed projections. Moreover, nominal expenditure ceilings are transparent and adherence is easier to monitor than is the case for real expenditure ceilings, which depend on the particular price deflator applied.

The comprehensiveness of expenditure limits varies by country. Only in Portugal, France and Germany do expenditure targets apply to the whole general government sector. In other countries expenditure limits cover only the central government and, in some cases, also social security funds. In the Netherlands the medium-term expenditure limit applies to central government, social security and health care expenditures. In Belgium the expenditure target covers the federal government and social security. The target does not include interest payments on public debt.

Expenditure limits are normally set by a particular Government and extend over the length of its term. Because these limits are not enforced by law, nor do they entail automatic adjustment mechanisms or sanctions against expenditure overruns, they are similar in nature to medium-term goals of Government. Neither do expenditure limits tie the hands of the parliament, which can change the Government's proposed budget and obviate expenditure limits.

Of the euro area countries, only the Netherlands has a rule whereby an overrun of an expenditure ceiling requires offsetting expenditure cuts – applicable, in principle, to the same year. In both Portugal and Spain, legislation that would make expenditure limits legally binding is waiting parliamentary approval. The Spanish bill also includes a provision requiring that, should a deficit be in the offing, an action plan must be drafted for achieving a balanced general government fiscal position.

Rigid expenditure limits can lead to pro-cyclical fiscal policy

Government renegeing on expenditure targets or ceilings reduces the credibility of fiscal policy in general. On the other hand, literal adherence to expenditure limits is not appropriate in all circumstances. When growth exceeds forecast, expenditure limits enable bloating of other expenditures, as cyclically-sensitive expenditures decline. On the other hand,

when growth slows and unemployment increases, meeting original expenditure targets requires the financing of cyclically-induced expenditures via cuts in other expenditure items. Rigid expenditure ceilings, which ignore cyclically-induced changes, can thus lead to a pro-cyclical fiscal policy that exacerbates economic fluctuations.

The expenditure limits applied in euro area countries are relatively inflexible vis-à-vis cyclically-induced changes because they were drawn up at a time when the main policy objective was fiscal consolidation. Strengthened budget balance has in recent years given rise to pressures to make expenditure limits more flexible. For example, in the Netherlands two funds have been added to the budget (less than 0.5% of total expenditure) to cover higher-than-projected wage increases in central government and other unanticipated expenditure increases. Also in Spain, plans are underway for a similar fund that would enable coverage of unanticipated expenditures without renegeing on agreed expenditure limits or key facets of budgetary policy. Another way of achieving fiscal flexibility to deal with fluctuations is to have ceilings only on expenditures that are unresponsive to cyclical conditions. This means in essence excluding unemployment-related expenditures from ceilings.

In practice, spending limits have proven flexible in Finland and many other euro area countries as interest payments on public debt have decreased. However, that interest payments are shrinking because indebtedness is generally on the decline should not automatically set in motion increases in other spending. Instead, the extra room for manoeuvre should be used to cover long-run spending needs, viz those connected with population ageing.

Expenditure limits and the other objectives of fiscal policy

Spending discipline and observing limits are crucial for the medium-term target of fiscal balance – but they are not sufficient. One problem that has arisen is the difficulty of forecasting public sector revenue. If limits are set on the basis of an over-optimistic revenue path, the chosen expenditure policy will not lead to the formation of a structural balance or surplus. On the other hand, the political process is often shortsighted, from which it follows that larger-than-

Box. Spending limits in Finnish fiscal policy

Budgetary Appropriation Guidelines where spending limits are broken down by administrative branch have played a key role in Finnish budget planning, and spending limits have helped to achieve balance in central government finances. The ratio of central government primary expenditures (excl. interest payments) to GDP peaked in 1993 at 32% and has subsequently fallen to some 21%, thanks to robust GDP growth and consolidation efforts. The largest relative decline has been in central government transfers and grants to local governments.

The Government agrees on limits for the bulk of expenditures in the coming year's budget, as well as for the next three years. The initial negotiations on Budgetary Appropriation Guidelines, held in February-March, are based on current-year appropriations, current legislation, other known appropriations decisions, and the latest economic forecasts. In 1999 the Government set the goal of keeping central government expenditure at the 1999 level, in real terms. However, only decisions concerning the coming year are actually binding on the Government.

The usefulness of spending limits for steering Finnish fiscal policy is affected by the difficulty of interpretation. Because the limits are defined in real terms, their realisation can be evaluated only in rough terms, ie at the 1999 price level, nor are in-

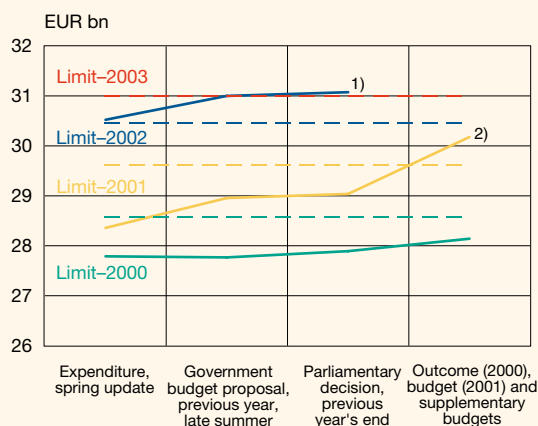
creases in appropriations explicitly evaluated in real terms in the budget. Thus the spending limits allow for cost-offsetting increases in appropriations. For example, a larger-than-projected wage increase for government employees will not necessarily require changes in other appropriations.

Another problem in the evaluation is that spending limits are set according to administrative branch rather than function. One cannot, on the basis of ministerial appropriations, get a clear picture of the intended usage of central government expenditures, eg producing public services vs redistributing income vs investment. Nor does such an awkward evaluation perspective – by administrative branch – promote cooperation between the ministries.

Even though central government expenditures are not highly sensitive to cyclical conditions, clearly-better-than-expected economic conditions have reduced unemployment-related expenditures by more than was projected in 1999. Thus, in this respect, the spending limits have been softened compared to the original intention. Central government interest payments have been reduced even more via debt reductions stemming from sizeable income from privatisations.

Spending limits have been breached and changed during the Government's negotiations, in parliamentary deliberations on a budget proposal,

Chart.
Initial spending limits for 2000–2003 (excl. interest payments) and their realisation



and afterwards – via spending increases covered by supplementary budgets. The Chart compares the 2000–2002 budget appropriation targets set by the Lipponen II Government in spring 1999 with year-later outcomes. Spending limits, up to 2002, are deflated by Statistics Finland’s central government expenditure index (base year 1999). Figures for 2002 and 2003 are based on the Bank of Finland’s spring 2002 forecast. Central government expenditure prices increase at about 3% pa in 2000–2003. Interest payments are excluded in the evaluation of spending limits realisation.

Central government expenditure met the spending limit set in 2000, even in terms of final figures. Spending limits as updated in 2000, as well as the proposed budget figures, are below the limits, partly because public sector wage increases were not included in the appropriations. The spending targets in the Government’s programme were slightly exceeded in 2001, and agreed appropriations for 2002

now exceed spending limits². Decisions made toward the end of 2001 regarding especially year-2002 spending increases in connection with employment, social security and roads appear to have significantly widened the gap between initially planned and actual government spending. Even without any further expenditure increases this year, future spending based on decisions already made will keep the initial spending level high again next year. Moreover, if unemployment increases as forecasted, central government expenditure relative to GDP could start to increase again.

² Appropriations for different years are not fully comparable because many functions have been transferred to net budgetting and some to state-owned companies. However, these structural changes in the budget do not materially alter the situation from that described above.

projected revenues readily lead to overruns of expenditure-increase targets. From the perspective of durable public finances, expenditures should be gauged in relation to structural revenues, ie public sector revenues excluding one-off items and cyclical effects. This approach enables setting and monitoring of expenditure limits/ceilings on the basis of a more realistic conception (than before) of true spending leeway, given that the true aim is fiscal balance.

At the moment, only in the Netherlands and France are budget revenues included in medium-term planning. In the Netherlands, if growth is higher than expected and revenue outcome exceeds the projection, the extra revenue cannot be used for expenditure increases but solely to reduce taxes and repay debt. In France spending targets are being set as from 2003 in the context of a three-year tax reduction plan.

The usefulness of expenditure limits vis-à-vis public sector discipline and fiscal balance depends crucially on the degree of financial autonomy of local and regional governments. This varies substantially across euro countries. Countries in which sub-central governments are highly autonomous have complemented central government expenditure limits by setting budget balance or surplus targets for

the sub-central governments (Belgium, Spain, Italy, Finland, Germany). This promotes the aims of the Stability and Growth Pact but does not guarantee consistent national fiscal policy (taxation and expenditure allocations) because budget balancing at sub-central government level can be achieved via tax increases and/or spending cuts. On the other hand, an increase in exceptional (cyclical) tax revenues raises the spectre of expenditure increases that may jeopardise budget balance in times of slower growth. Application of expenditure limits to sub-central governments, however, is not a realistic option because of the large number and special needs of such governments. Moreover, compliance monitoring would also be particularly difficult.

Concluding remarks

Research on fiscal policy rules emphasises that expenditure frameworks and ceilings will be successful if they are operationally simple; their enforcement, monitoring and surveillance mechanisms are effective; they are binding across terms of Government; they are easy for the public to understand; and they

are widely supported across the society. When rules are credible, economic agents can have confidence in the announced policy stance, which will reduce the uncertainty surrounding long-run economic decision-making (regarding consumption, investment, saving).

Credibility often requires the use of sanctions. Without an effective system of sanctions, credibility can be achieved only via reputation building over a long period of time. Experiences with fiscal policy rules in different countries indicate that, without an effective enforcement and sanction system, rules often turn out to be short-lived and thus ineffective in

constraining expenditure growth or preventing deficits and expanding indebtedness. The temptation of Government to one-sidedly break its own rules ex post is especially strong in election years, when the economy is slowing, and in the throes of a change of Government.

15 February 2002

- Key words: spending limits, fiscal policy, budget expenditures

Social exclusion: a challenge to macroeconomic policy

by **David G. Mayes***, Adviser to the Board
Research Department
Bank of Finland

As the conclusions from the Lisbon Council in 2000 make clear,¹ the search for increased levels of employment with higher skills and increased economic growth has supplanted inflation as the key macroeconomic policy issue in the EU. This is part of a ten-year action programme *to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion*. Increased employment participation is central for the wider goal of improving welfare by reducing social exclusion and hence increasing social inclusion. One of three principal action areas is *modernising the European social model, investing in people and combating social exclusion*. In implementing this, the Council decided to apply a *new open method of coordination*.

There is potential conflict between achievement of the wider social objective and pursuit of prudent macroeconomic policy (Gold and Mayes 1993). Trying to improve the growth rate, investment and R&D tends to increase public spending. Tackling unemployment, deprivation and other forms of exclusion involves increased transfers through the tax/benefit system. Although the consequent ‘inflation bias’ is addressed by the monetary policy framework in the

Maastricht Treaty, problems remain. At some point, below current levels in the EU, such increases in the role of the public sector can be counterproductive and by reducing incentives actually diminish the overall growth in GDP and employment (Koskela and Virén 2000).

Therefore here we suggest ways of using the new method of open coordination to reduce social exclusion substantially without threatening either macroeconomic prudence or the attempt to increase growth to 3% a year.

What is social exclusion? What causes it? What can reduce it?

There is no accepted definition of the terms social exclusion and inclusion in EU circles. This has actually been helpful by allowing member states to get on with tackling the problem as they each see it, without first indulging in protracted terminological debate. Social exclusion reflects the idea that some groups in society are persistently deprived of the benefits that the rest enjoy, for a variety of reasons not of their own choice. The three most obvious are unemployment, poverty and disability/ill health. The definition we offer (Mayes et al 2001) is that *social exclusion is a blend of multidimensional and mutually reinforcing processes of deprivation, associated with a progressive dissociation from social milieux, resulting in the isolation of individuals and groups from the mainstream of opportunities society has to offer*.

This introduces four key ingredients:

- There are many facets to social exclusion, so different combinations of circumstances can lead to the same result. No one facet is necessary or sufficient – some unemployed are not excluded while some full-time employed clearly are.

* This article draws on the results of a multinational project called EXSPRO (Social Exclusion and Social Protection: the Future Role for the EU), financed by the European Commission’s Targeted Socio-Economic Research Programme and codirected by the author and Iain Begg from South Bank University in London. The other partners came from the Universities of Leuven, Copenhagen, Helsinki and Tilburg, the Ecole Normale Supérieure de Cachan, Paris, and the Centre for Economic Research and Environmental Strategy, Athens. The results are published as a policy report (Begg et al, 2001), a book on the conceptual and policy issues (Mayes, Berghman and Salais 2001) and an empirical book (Muffels, Tsakoglou and Mayes 2002). See <http://www.sbu.ac.uk/euroinst/EXSPRO/index.html>.

¹ European Council (2000 p. 11).

- These facets interact. Low-paid employees have less time to undergo training to improve their position and no means of paying for it, making their job less secure. They are more likely to live in poor quality housing in rough neighbourhoods and hence more exposed to threats to their health and less inclined to venture out after dark to participate in activities that improve the quality of life.
- Exclusion is not just a state but a process, as seen in the progressive decline of those who lose their jobs and the progressive difficulties of the elderly. Effective policies therefore involve early action to avoid entering this downward spiral. Waiting till people reach the bottom greatly increases the cost and the chance of failure. Unemployment is ‘scarring’ (Economic Journal 2001). Given skills and other characteristics, becoming unemployed affects the quality, wage rate, security and difficulty in obtaining employment for over a decade. Children of the excluded have a much greater chance of being excluded themselves.
- Exclusion is a relative concept. Over time, what constitutes or causes exclusion changes. In a knowledge-driven economy, Internet access is essential, something inconceivable earlier. This is not a one way process; television and improved communications make physical remoteness less important. Exclusion is not a one-off problem that can be solved permanently.

The modern more rapidly changing economy can exacerbate exclusion. Skills become obsolete more quickly, inefficient firms are driven out of business faster, locations become noncompetitive because of distance from markets and inputs. Rural societies that were highly inclusive through the actions of the family and the local community, no longer function as people leave. Change has costs and a more dynamic economy requires more resources for education, training and infrastructure. The Lisbon strategy is rather silent on locational mobility, which is an important facet of the greater US flexibility.

Hoping for an adequate solution from economic growth without making other changes is unlikely to succeed, however good the macroeconomic management. Growth in Finland – since 1993, around 5% pa – is high by European standards. Yet while GDP has

regained its previous trend path, unemployment remains well above its previous levels (Ripatti and Vilmunen 2001). This reflects not just the asymmetry (hysteresis) that downward shocks to activity shake out more labour than upward shocks of the same size re-employ but also changes in technological trends. The Lisbon Council therefore concluded that structural change and a change in the way social protection systems operate are essential to improve the employment/social inclusion content of growth.

These issues relate to long-run structural development. There is also concern about how flexibly the euro economy can react to shocks and consequences of business cycles. While the Stability and Growth Pact is unlikely to inhibit the appropriate operation of automatic fiscal stabilisers, there is more that can be done within the constraints to avoid economic shocks being turned into more persistent social problems.

No single social model in Europe and no single solution

Initially the EC thought it would need to harmonise social security systems, to enable free movement of labour between member states without losing entitlements and prevent destabilising migration toward the ‘best’ systems.² By 1972 harmonisation was clearly unnecessary (and impossible to agree). Producers might also have responded to the 1980s’ internal market programme by moving to regions with the lowest social costs, ie engaging in ‘social dumping’. This did not happen, but the idea has resurfaced with impending enlargement of the EU.

Social protection forms part of the fabric of society and is not readily altered without sweeping changes to the economic and social system. It is not very productive to identify particular approaches as being better than others, as their success also comes from their context. Using cluster analysis we identify four employment regimes: Anglo-Saxon/liberal; Social Democratic/Nordic; Corporatist continental; and Traditionalist Southern (Muffels et al 2001). Their characteristics vary considerably, with more income

² Those with the greatest risks would move to the regimes with the greatest benefits and those with the lowest risks (higher expected incomes) would gravitate to the lowest tax regimes. This might generate a rush to the bottom, to the detriment of the disadvantaged.

inequality and means-testing in the Anglo-Saxon than in the Nordic regime, more emphasis on private sector provision, less restrictive labour market legislation and less active labour market policies. Yet the resulting social exclusion is fairly similar for all except the Southern regime, where it is much greater and more persistent. It also emphasises the role of the family rather than the state, while the Anglo-Saxon regime offers more mobility.

There is also variety within regimes. While Nordic countries put greatest emphasis on active labour market measures the Netherlands also does and in many respects is the state that has changed most. The trend is clearly toward more active regimes; only the Italian and Greek seem substantially passive.

Five key features emerge from this study that must be addressed in designing a way forward. Running across them is the need for *incentives* so that all parties tend to reduce social exclusion in the way they pursue their normal interests.

- *Activation and adoption of a capabilities approach.*³ The excluded face an inability to escape from their unfortunate circumstances. Activation provides the ‘capabilities’ for changing their condition. The homeless can find it difficult to get access to benefits. A fixed address is necessary to receive various forms of support and for effective communication in respect of employment.
- *A focus on the individual.* Much activation requires treating people individually rather than providing general programmes. This poses a heavy administrative burden. Such measures fare poorly in simple financial cost-benefit analyses. The number of social assistance recipients has halved since the Clinton reforms in the United States but expenditure is roughly unchanged. In a static framework benefits are a cheaper means of income support than assisting people into jobs.
- *Avoiding a divided world of insiders and outsiders.* Traditional approaches tend to create divisions. In the Southern and Continental regimes it is male full-time employees who are insiders and others, especially females, outsiders. Since income levels are normally determined on a family or household basis, maintaining a one-earner or one-and-a-half-earner (one insider, one outsider)

model may appear satisfactory. This will not be true if what also matters is whether each individual is an insider or outsider. The Netherlands has made the biggest break from the full-time model. The Southern regime forced many women to decide between a career and having a family.⁴ The Nordic regime tries to eliminate the need for that choice.

- *Limits to the role of the public sector.* The Nordic regime’s disadvantage lies in the heavy involvement of the public sector as employer, with the consequent tax burden imposing greater disincentives. The higher the tax rates, the less the possible range of new policies to tackle remaining social exclusion. Greater public expenditure in one area is likely to be possible only with cuts elsewhere. Cutting subsidised public sector employment may not result in a one-for-one increase in employment in the nonsubsidised, but regulated, private sector. Finding a way out that does not involve an initial worsening of the problem is difficult.⁵
- *Employment for those with low capabilities.* Assisted employment programmes and encouragement of people into work can result in pay rates where families remain below designated poverty levels. High benefits mean that some of the low-skilled are virtually unemployable and low-skilled tasks are undertaken on the fringe of the labour market. Capital is substituted for labour and customers do the job themselves. It is easy to have a system that contains ‘unemployment traps’ – it is difficult to improve income by working.

US-style ‘workfare’ has an advantage in removing the stigma of being in obvious receipt of benefit. While public support may still be paid, making it more confidential reduces the social exclusion that occurs simply by being an identifiable member of a deprived group. However, if it is difficult to increase income, a poverty trap may be substituted for an unemployment trap.

⁴ One of the consequences of this has been a marked decline in the birth rate.

⁵ Governments hope growth will provide a way out, as it simultaneously reduces the demand for welfare payments and raises revenues. More effort can then be put on the remaining socially excluded and on tax rate cuts to increase incentives.

³ The concept of *activation* should not be confused with ‘active’ policies.

The open method of coordination as a way forward

The EU's open method of coordination might seem like window-dressing. Medium-term objectives are agreed among the member states and a set of generalised guidelines developed to try to achieve them. In an annual cycle of actions based on more specific and quantifiable targets, each member state sets out an implementation plan. The European Commission monitors progress and draws conclusions to assist the next cycle of the programme. The difference from the 'harder' methods of coordination is the lack of compulsion. Each member state can choose measures it finds best for its economic and social structures and traditions; following the same path is presumed inefficient.

The main example of open coordination is employment, although the Broad Economic Guidelines can be seen in that light. The National Action Plans in the Employment Strategy have developed using measures contributing to four main pillars: employability; entrepreneurship; adaptability; and equal opportunities. Member states have responded rapidly to comparisons produced by the Commission. Governments do not like to be low in league tables; hence there has been a rapid take-up of ideas applied by others, thus stimulating a process of mutual learning. Some programmes may be nothing more than relabelling of existing activities. Nonetheless, the inclusion of quantitative measures limits the extent to which actions are largely insubstantial.

A set of guidelines for increasing social inclusion

Reforming social protection so as to reduce social exclusion in the framework of the Lisbon Council strategies seems ideal for applying the open method of coordination and has been adopted. In the recent report of the EXPRO project, we therefore suggested a set of guidelines presented in the same format as the European Employment Strategy (Begg et al 2001; see Box).

The issue in the first pillar is giving people the capability to participate in society. Labour market participation comes first, and this is already being addressed in the Employment Guidelines – hence the

Guidelines for a European Social Welfare Strategy

- 1 Participatability** ensuring more people are able to participate in economic and social activity
 - providing individuals with capabilities to facilitate labour market participation
 - easing obstacles in housing, transport and relocation
 - remedial education and training
 - improving access to health care for vulnerable groups
- 2 Productive social protection**
 - shifting toward active labour market schemes
 - rebalancing incentives
 - developing pilot schemes
- 3 Mobilising economic and social actors**
 - improving the information flow among government agencies involved
 - involving social partners and NGOs
 - motivating and supporting voluntary sector activities
 - making more effective use of local strengths
- 4 Equality of treatment**
 - clarifying rights and obligations
 - ensuring benefits take-up by those at risk, especially the elderly
 - setting thresholds for guaranteed minimum resources
 - movement of labour – especially in cross-border regions
 - gender equality

emphasis on housing, communication, mobility, education, skills and health. Secondly, the nature of social protection needs to be changed so as to support active participation. While this involves switching to more active policies and gearing incentives to the same end, mutual learning will be stimulated if member states develop pilot schemes, generating more experience to draw on. However, it is essential to try to get all of the actors who can influence greater inclusion to work at assisting each other. This is diffi-

cult because it involves all layers of government, down to the most local, as well as the private and voluntary sectors. Coordination can be encouraged but not compelled. 'Equal treatment' is core to social protection and fairness. There is a major difficulty in trying to decide where to put the resources. The biggest impact on the number of socially excluded comes from tackling the least excluded/more capable. Conversely, the greatest per capita benefit comes from including the most excluded. Similarly dealing with those most at risk is most effective in stopping people sliding (further) into exclusion. The implication is that we should seek to ensure that every societal group has a minimum level of participation capability. Hence the fourth pillar aims at achieving equality of treatment in this sense, as in the Employment Guidelines.

Concluding remarks

Social exclusion is not a problem that can be solved but rather one that can be addressed with varying degrees of success. We have tried to set out a balanced approach to handling it as part of the Lisbon Council's ten-year strategy for development of the EU. This balance needs at least four ingredients:

- structural change to encourage the rate of growth, principally in terms of increasing the economy's ability to respond rapidly and with little cost to new opportunities and unfavourable shocks
- investment in skills, education, technology infrastructure and systems – a build-up of capabilities
- reform of the system of social protection to encourage participation and reduce social exclusion
- a prudent macroeconomic framework of sound fiscal policy and price and financial stability.

These are complementary. They are not alternatives. Pursuing some without regard to their interaction could easily be counterproductive.

4 January 2002

■ **Key words: social exclusion, European Union, open method of coordination, social protection, capabilities**

References

- Begg, I, Berghman, J, Chassard, Y, Kosonen, P, Madsen, P K, Matsaganis, M, Mayes, D G, Muffels, R, Salais, R and Tsakloglou, P (2001), *Social Exclusion and Social Protection in the European Union: Policy Issues and Proposals for the Future Role of the EU*, London: South Bank University
- Begg, I and Mayes D G (with M Levitt and A Shipman) (1991), *A Strategy for Economic and Social Cohesion in Europe after 1992*, European Parliament Research Paper 19
- Economic Journal* (2001), Feature on 'Unemployment Scarring', vol. 112, November, p. F577-653
- European Council (2000), Lisbon Presidency Conclusions (<http://europa.eu.int>)
- Gold, M and Mayes, D G (1993), 'Rethinking a Social Policy for Europe' in R. Simpson and R. Walker (eds.) *Europe for Richer or Poorer*, London: Child Poverty Action Group
- Koskela, E and Virén, M (2000), 'Is there a Laffer Curve Between Aggregate Output and Public Sector Employment?', ETLA Discussion Paper 737
- Mayes, D G, Berghman, J and Salais, R (2001), *Social Exclusion and European Policy*, Cheltenham: Edward Elgar
- Muffels, R, Tsakloglou, P and Mayes, D G (2002), *Social Exclusion in European Welfare States*, Cheltenham: Edward Elgar
- Ripatti, A and Vilmunen, J (2001), 'Declining Labour Share – Evidence of a Change in the Underlying Production Technology?', Bank of Finland Discussion Paper 10/2001

Key interest rates

The main refinancing operations are the principal monetary policy instrument used by the Eurosystem¹. 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 six times. Effective 14 November 2001, the minimum bid rate is 3.25%. 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.

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.

Effective 9 November 2001, the interest rate on the Eurosystem marginal lending facility is 4.25% and the overnight interest rate on the deposit facility 2.25%.

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 cir-

cumstances 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 with the practice applied in other euro area countries. A list of the institutions subject to Eurosystems 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/rhindex.htm>).

Recent Bank of Finland research publications

A complete list of publications is available on the Bank of Finland's website (<http://www.bof.fi/>).

Printed versions of publications can be ordered from the Bank at the following address: Bank of Finland, Address Register, P.O.Box 160, 00101 Helsinki, Finland. Telephone +358 9 1831.

the United States. 70 p. ISBN 951-686-765-0, print; ISBN 951-686-766-9, online.

3/2002

Seppo Honkapohja – Kaushik Mitra **Performance of monetary policy with internal central bank forecasting.** 44 p. ISBN 951-686-767-7, print; ISBN 951-686-768-5, online.

4/2002

Iftekhhar Hasan – Markku Malkamäki – Heiko Schmiedel **Technology, automation and productivity of stock exchanges: International evidence.** 41 p. ISBN 951-686-769-3, print; ISBN 951-686-770-7, online.

Publications series

Series E

ISSN 1238-1691 (print)

ISSN 1456-5951 (online)

E:22

Kari Takala **Studies in Time Series Analysis of Consumption, Asset Prices and Forecasting.** 2001. 300 p. ISBN 951-686-759-6, print; ISBN 951-686-760-X, online.

Discussion Papers

ISSN 0785-3572 (print)

ISSN 1456-6184 (online)

25/2001

Tapio Korhonen **Finnish monetary and foreign exchange policy and the changeover to the euro.** 46 p. ISBN 951-686-757-X, print; ISBN 951-686-758-8, online.

26/2001

Harri Lahdenperä **Payment and financial innovation, reserve demand and implementation of monetary policy.** 56 p. ISBN 951-686-761-8, print; ISBN 951-686-762-6, online.

1/2002

Tuomas Välimäki **Bidding in fixed rate tenders: theory and experience with the ECB tenders.** 45 p. ISBN 951-686-763-4, print; ISBN 951-686-764-2, online.

2/2002

Juha Junnila **Forecasting the macroeconomy with current financial market information: Europe and**

BOFIT Discussion Papers

ISSN 1456-4564 (print)

ISSN 1456-5889 (online)

13/2001

Vadims Sarajevs **Convergence of European transition economies and the EU: What do the data show.** 40 p. ISBN 951-686-808-8, print; ISBN 951-686-809-6, online.

14/2001

Jarko Fidrmuc – Iikka Korhonen **Similarity of supply and demand shocks between the euro area and the CEECs.** 38 p. ISBN 951-686-810-X, print; ISBN 951-686-811-8, online.

15/2001

Byung-Yeon Kim – Jukka Pirttilä – Jouko Rautava **Money, Barter and Inflation in Russia.** 40 p. ISBN 951-686-812-6, print; ISBN 951-686-813-4, online.

16/2001

Byung-Yeon Kim **Determinants of Inflation in Poland: A Structural Cointegration Approach.** 36 p. ISBN 951-686-814-2, print; ISBN 951-686-815-0, online.

17/2001

Pekka Sutela **Managing capital flows in Estonia and Latvia.** 64 p. ISBN 951-686-816-9, print; ISBN 951-686-817-7, online.

1/2002

Ali M. Kutan – Nina Pautola-Mol **Integration of the Baltic States into the EU and Institutions of Fiscal Convergence**. 37 p. ISBN 951-686-818-5, print; ISBN 951-686-819-3, online.

2/2002

Juha-Pekka Niinimäki **Bank panics in transition economies**. 40 p. ISBN 951-686-820-7, print; ISBN 951-686-821-5, online.

Abstracts

Series E

Studies in Time Series Analysis of Consumption, Asset Prices and Forecast

Kari Takala
E:22

- Key words: cointegration, asset prices, forecasting, nonlinearity, bankruptcy

This collection of seven papers deals with three different areas of econometric applications: consumption, asset prices, and forecasting. The papers apply techniques related to the analysis of unit roots and cointegration methods.

The first paper deals with consumption theories and formulates an error-correction forecasting model for consumption. A single cointegration relationship is found between consumption, income and net wealth, which is in line with the permanent income hypothesis. The second paper studies the excess sensitivity of consumption to current disposable income. Estimating the coefficient with time-varying techniques, we notice a decline in the coefficient during the period of financial deregulation toward the end of the 1980s and a rise during the recession. The third paper takes a closer look at how useful consumer barometer variables can be in forecasting variables such as consumption and inflation.

The first paper on asset prices, is based on the theory of cointegration between house and stock prices, which asserts that real after-tax risk-adjusted

returns on assets should coincide in the long run. This paper presents a model for house prices that uses stock prices as a leading indicator to improve the forecasting of housing prices. Another paper on asset prices considers cointegration between house prices and inflation, and finds eg that house prices adjust to consumer prices in the long run and that no excess real appreciation, apart from rental income, is derived from house ownership.

The two last papers deal with bankruptcy forecasting and testing for nonlinearities and chaos. It is asserted that bankruptcies can be interpreted as error-correction between supply and demand. Many tests have been developed to study the presence of nonlinearities in economic series. The results of testing unambiguously support that there are strong nonlinearities in economic data, but the evidence for chaos is weak.

Discussion Papers

Finnish monetary and foreign exchange policy and the changeover to the euro

Tapio Korhonen
25/2001

- Key words: monetary policy, foreign exchange policy, EMU, euro, monetary policy arrangements

This paper presents the salient aspects of Finland's monetary and exchange rate policies during the run-up to monetary union in the 1990s. In the course of slightly more than a decade, Finland's monetary and exchange rate policies were thoroughly revamped. The remnants of heavy regulation were removed and a market-based financial system was put in place. There were serious problems associated with the liberalisation process in the early part of the decade, the most noteworthy being an economic and banking crisis. Finland's financial system nonetheless developed rapidly and became a more integrated part of the global system. As regards exchange rate policy, almost all varieties of exchange rate regime were tried. A fixed rate regime based on a currency index fell apart in the early part of the decade and was replaced by a floating rate system. Later, in 1993, this

was combined with an inflation-targeting monetary policy strategy. At the start of 1995 Finland joined the European Union, and in October 1996 the markka was joined to the EU's Exchange Rate Mechanism. The improvement in financial and price stability that followed the economic crisis facilitated the adjustment to the euro area's single currency and single monetary policy at the start of 1999, which was accomplished without serious problems.

Payment and financial innovation, reserve demand and implementation of monetary policy

Harri Lahdenperä

26/2001

- Key words: monetary policy, reserve demand, payment systems, financial innovation

The consequences of electronic trading, payment and settlement have recently become one of the main topics in monetary economics. New innovations in payment and settlement technology are challenging the central bank's monopoly over the supply of base money, which is generally considered the cornerstone of the central bank's power to set the short-term interest rate for the economy. This paper demonstrates that the development of the economy's transaction technology over time has indeed had a significant quantitative impact on the demand for currency and bank reserves, and indirectly on the modalities of the supply of reserves by the central bank. In contrast to past trends, the latest innovations in payment and settlement technology imply not only a quantitative change but also a qualitative one, as they enable private institutions to issue settlement money that competes with the liabilities of the central bank. The paper presents a model on the implementation of monetary policy in an economy where such private substitutes for central bank money are available for the settlement of transactions, showing that effective monetary control by the central bank might indeed be compromised in those circumstances. However, the study also highlights several attributes that may distinguish central bank liabilities from any private alternatives, some of which are based on the central bank's traditional role as banker for the government.

Bidding in fixed rate tenders: theory and experience with the ECB tenders

Tuomas Välimäki

1/2002

- Key words: bidding, money market tenders, liquidity policy, central bank operating framework

This paper presents a model of the optimal bidding behaviour of a single bank in the context of fixed rate liquidity tenders. Banks' bidding is shown to depend crucially on the central bank's liquidity policy as regards tender allotments. The paper also analyses ECB liquidity policy in terms of the model. The ECB, while applying fixed rate tenders, appears to have been attempting to stabilise the market interest rate at a level close to the main refinancing rate. However, this aim was at least partially overridden by that of stabilising total money market liquidity over the course of the reserve maintenance period – even more so when banks were expecting the ECB to raise the main refinancing rate in the near future. The banks' aggregate bids increased considerably during the period of fixed rate tenders. This was seen to result mainly from profit opportunities associated with a positive spread between market interest rate and main refinancing rate. The positive spread resulted from the combination of expectations of an interest rate hike and liquidity-oriented allotment policy.

Forecasting the macroeconomy with current financial market information: Europe and the United States

Juha Juntila

2/2002

- Key words: financial markets, forecasting, macroeconomy, euro area, USA

Using recently developed modelling methodology of Economic Tracking Portfolios (ETP), we find that it is possible to forecast future values of inflation and changes in industrial production in the United States and at least three core euro countries – Italy, France and Germany – utilising only current and past financial market information. The longer the forecasting horizon, the better the forecasts based solely on financial market information, compared to results

from other methods. Of the analysed countries, the overall forecasting performance of the tracking portfolios is the best for the United States, and the method employed here clearly outperforms the forecasting performance of a more traditional VAR approach.

Performance of monetary policy with internal central bank forecasting

Seppo Honkapohja – Kaushik Mitra
3/2002

- Key words: adaptive learning, stability, heterogeneity, monetary policy

Recent models of monetary policy have analysed the desirability of different optimal and *ad hoc* interest-rate rules under the restrictive assumption that forecasts of the private sector and central bank are homogeneous. In this paper, we study from a learning perspective the implications of heterogeneity across forecasts by the central bank and private agents for the performance of interest-rate rules.

Technology, automation and productivity of stock exchanges: International evidence

Iftekhar Hasan – Markku Malkamäki – Heiko Schmiedel
4/2002

- Key words: stock exchanges, technological progress, technical efficiency

The paper stresses on the importance of understanding the operational choices, strategies, and performances of stock exchanges as regular operating firms (Arnold et al 1999, and Pirrong 1999) Using unbalanced panel data on 49 stock exchanges over the period 1989–1998, the paper traces the productivity of stock exchanges over time and across different types and groups of exchanges. We find significant variability in respect of the productivity – revenue and cost efficiency – across these exchanges. On average, North American exchanges are found to be most cost and revenue efficient. However, our findings also indicate that European exchanges have improved the most, in respect of cost efficiency, while exchanges in South America and Asia-Pacific regions

are found to be lagging as regards both cost and revenue estimations. The evidence also indicates that investment in technology-related developments effectively influenced cost and revenue efficiency. Moreover, organisational structure and market competition are found to be significantly associated with both cost and revenue efficiency for the exchanges studied, whereas market size and quality are related only to revenue efficiency.

BOFIT Discussion Papers

Convergence of European transition economies and the EU: What do the data show

Vadims Sarajevs
13/2001

This is an empirical study of the real income convergence among the fifteen European Union members and the eleven transition economies of Central and Eastern Europe. Debates and research on EU enlargement tend to concentrate on normative issues, so empirical studies constitute a small share of published work on the subject. This empirical investigation relies on available data on transition, and employs several econometric techniques, including graphic analysis, classical cross-section regression and dynamic panel data estimations. Most estimation methods find positive convergence, but estimated rates of convergence vary considerably.

- Key words: convergence, enlargement, dynamic panel

Similarity of supply and demand shocks between the euro area and the CEECs

Jarko Fidrmuc – Iikka Korhonen
14/2001

- Key words: optimum currency area, EMU, EU enlargement, structural VAR

We assess the correlation of supply and demand shocks between the countries of the euro area and the accession countries in the 1990s. Shocks are recovered from estimated structural VAR models of

output growth and inflation. We find that some accession countries have a quite high correlation of the underlying shocks with the euro area. However, even for many advanced accession countries, the shocks remain significantly more idiosyncratic. Furthermore, many EU countries seem to have a much higher correlation with the core euro area countries than in the previous decades. Continuing integration within the EU seems to have aligned the business cycles of these countries as well.

Money, Barter and Inflation in Russia

Byung-Yeon Kim – Jukka Pirttilä – Jouko Rautava
15/2001

- Key words: barter, money, inflation, cointegration, error-correction mechanism, Russia

Using a macroeconometric framework, this paper analyses relationships among money, barter and inflation in Russia during the transition period. Following the development of a theoretical framework that introduces barter in a standard small open economy macro model, we estimate our model using structural cointegration and vector error correction methods. Our findings suggest that barter has resulted from output losses and but to a lesser extent from a reduction in real money balances. There is some evidence that the effect of barter on prices is less than that of money. We also find that increases in barter are affected by banking failure. Our results imply that a macro model that excludes barter will fail to capture all the relevant information for inference on money and inflation in Russia.

Determinants of Inflation in Poland: A Structural Cointegration Approach

Byung-Yeon Kim
16/2001

- Key words: inflation, cointegration, error correction mechanism, Poland

Using cointegration and error-correction models, this paper analyses the relative impacts of the monetary, labour and foreign sectors on Polish inflation from 1990 to 1999. Following the development of a theo-

retical framework, we use a structural system approach in which cointegration relationships are used to derive deviations from steady-state levels. The deviations are interpreted as excess demand pressure on inflation in a given sector and are subsequently incorporated in order to determine the short-run dynamics of Polish inflation. The results suggest that the labour and external sectors dominated the determination of Polish inflation during the above period, but their effects have been the reverse since 1994. The appreciation of the domestic currency contributed to reducing inflation, while excessive wage increases prevented inflation from decreasing to a lower level. The monetary sector appears not to have exerted influence on inflation, suggesting that monetary policy has been passive.

Managing capital flows in Estonia and Latvia

Pekka Sutela
17/2001

- Key words: Baltic countries, capital flows and controls, financial crises, currency boards

The three Baltic countries have been able to combine, Estonia since 1992 and Latvia and Lithuania since 1994, (1) a fixed exchange rate, (2) liberalisation of the capital account before having a well-functioning and fully supervised financial system, and (3) very large current account deficits. At the same time they have gone through deep structural and institutional change, which has been even faster than in several other transition economies. How have they been able to manage such a combination of characteristics that would usually be regarded inconsistent?

The answer is not in clever management or control of financial markets combined with sound fundamentals. Rather, the Baltic countries have lacked several such markets as might be sources of instability. There are hardly any inter bank markets. Public debt is absent or relatively very small. Since the boomlet of 1997, the Baltic stock exchanges have generally hibernated. Banking crises have been recurrent. Not only are these economies extremely small; their degree of monetisation is also very low. There are very few assets and markets for speculative capital flows.

This reflects in part sound fundamentals, but mostly it is an unintended consequence of policy decisions. One cannot expect the experience to be easily repeated in other countries.

Integration of the Baltic States into the EU and Institutions of Fiscal Convergence

Ali M. Kutan – Niina Pautola-Mol
1/2002

- Key words: EU enlargement, fiscal policy, Baltic countries

This paper evaluates the functioning, suitability, and effectiveness of the Maastricht convergence criteria regarding fiscal policy and the Stability and Growth Pact for the Baltic States. We argue that the Maastricht fiscal targets, from the Baltic perspective, should be considered as long-term goals, as opposed to short-run objectives of fiscal policy. Using the European Commission's approach as well as impulse response and variance decomposition techniques, we assess the fiscal discipline and cyclical sensitivity of each state's budget to changes in output gap. Empirical evidence indicates that Estonia and Latvia have been more successful in maintaining fiscal discipline than Lithuania during 1996-2000. We also observe that the Stability and Growth Pact signed in July 1997 would offer enough room for automatic fiscal stabilisers in Estonia and Latvia, but not necessarily in Lithuania. Policy implications of the findings for future perspectives are also discussed.

Bank panics in transition economies

Juha-Pekka Niinimäki
2/2002

- Key words: transition economies, bank panics, bank regulation, financial crises

This paper discusses recent bank runs in seven transition economies (Russia, Bulgaria, Estonia, Hungary, Latvia, Lithuania and Romania), comparing them against the older US experience and theoretical research. Bank runs seem usually to be information based. For example, improvements in bank transparency, such as new accounting rules, can reveal a bank's insolvency and trigger a run. However, bank runs, as seen a few years ago in East Asia, Bulgaria and Russia, may also be accompanied by runs on national currencies.

We include a bank run model that shows that a bank may issue liquid demand deposits and avoid runs without deposit insurance as long as it also issues less liquid time deposits. Self-fulfilling runs are prevented through elimination of the maturity mismatch. The well-known Diamond & Dybvig (1983) model is modified to account for depositors' risk affinities, whereby high-risk depositors hold their savings as demand deposits and low-risk depositors prefer time deposits. These deposit choices transfer liquidity optimally from low-risk to high-risk depositors who value liquidity. By exploiting these choices, a bank can improve its intertemporal risk-sharing by issuing deposits of varying degrees of liquidity. This maturity transformation does not necessarily raise the economy's total liquidity.

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 5,181,115 (31 December 2000) and an average population density of 17 per square kilometre. The largest towns are Helsinki, the capital, with 555,474 inhabitants, Espoo 213,271, Tampere 195,468, Vantaa 178,471 and Turku 172,561.

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 114 billion in basic values in 2001, 1.4% was generated in agriculture, hunting and fishing, 2.3% in forestry, 28.3% in industry, 5.9% in construction, 11.5% in trade, restaurants and hotels, 9.5% in transport and communications, 3.9% in finance and insurance, 17.2% in other private services and 19.8% by producers of government services. Of total employment of 2.3 million persons in 2001, 5.7% were engaged in primary production, 27.1% in industry and construction and 67.2% in services.

In 2000 expenditure on the gross domestic product in purchasers' values amounted to EUR 131 billion and was distributed as follows: net exports 9.4% (exports

42.9%, imports -33.6%), gross fixed capital formation 19.3%, private consumption 49.5% and government consumption 20.6%. Finland's tax ratio (gross taxes including compulsory employment pension contributions relative to GDP) was 46.8%.

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 2000 was USD 23,417.

Foreign trade. EU countries absorb the bulk of Finnish goods exports. In 1997-2001 their average share was 55.3%. Over the same period, Finnish exports to other European countries (including Russia) accounted for 18.6% and to the rest of the world for 26.1%. During the same period the regional distribution of Finnish goods imports was quite similar to that of exports: EU countries accounted for 57.4%, other European countries for 18.3% and the rest of the world for 24.3%.

In 2001 the share of forest industry products in total goods exports was 26.7%, the share of metal and electrical products 55.4% and the share of other goods 17.9%. Raw materials and intermediate goods and energy together accounted for 51.0% of goods imports, capital goods for 24.4% and durable and non-durable consumer goods for 24.6%.

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 (15 March 2001). Finland has three major groups of deposit banks with a total of about 1,523 branches. In addition there are five smaller banks and banking groups. The commercial banks have a total of 19 foreign branches, subsidiaries and associate banks and 10 representative offices abroad. There are 40 savings banks, a group of cooperative banks (244) and 42 local cooperative banks. In addition, 8 foreign banks have branches and 5 foreign banks have representative offices in Finland.

Financial markets. The total stock of domestic credit amounted to EUR 120.9 billion at end-September 2001 and was broken down by lender group as follows: deposit banks 62%; insurance companies 5%; pension insurance institutions 14%; other credit institutions 9%; central and local governments and social security funds 10%.

In the money market, the total value of instruments outstanding was about EUR 22.2 billion at end-December 2001; bank certificates of deposit accounted for 52% of the total and Treasury bills, commercial paper and local authority paper for the rest.

At end-December 2001 there were 114 companies on the main list, 29 on the investors' list and 16 on the NM list of the HEX. At end-December 2001 total market capitalisation was EUR 215.6 billion for the main list, EUR 1.3 billion for the investors' list and EUR 0.44 billion for the NM list. Domestic bonds and debentures in circulation at end-December 2001 amounted to EUR 50.3 billion; government bonds accounted for 79% of the total. Share turnover on the HEX amounted to EUR 202.7 billion in 2001.



VISITING SCHOLARS PROGRAMME

BANK OF FINLAND

The Bank of Finland, the national central bank, has 750 employees, some 30 of whom are involved in research. The Bank is located in Helsinki.

The Bank of Finland welcomes applications from foreign and Finnish scholars for a post under the Bank's 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

to: Research Department
Bank of Finland
P.O.Box 160
Helsinki, Finland
Fax: +358 9 183 2560
Email: Kaisa-Liisa.Nordman@bof.fi

Inquiries: Juha Tarkka, Head of Research Department,
phone +358 9 183 2581, email Juha.Tarkka@bof.fi
or
Jouko Vilmunen, Research Supervisor, Research Department
phone +358 9 183 2594, email Jouko.Vilmunen@bof.fi

Balance sheet of the Bank of Finland, EUR million

| | 2001 | 2002 | |
|---|---------------|---------------|---------------|
| | 31.12. | 25.1. | 22.2. |
| Assets | | | |
| 1 Gold and gold receivables | 502 | 497 | 497 |
| 2 Claims on non-euro area residents denominated in foreign currency | 8 876 | 9 011 | 9 069 |
| 2.1 Receivables from the IMF | 892 | 899 | 923 |
| 2.2 Balances with banks and security investments, external loans and other external assets | 7 984 | 8 112 | 8 146 |
| 3 Claims on euro area residents denominated in foreign currency | 771 | 817 | 781 |
| 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 | 1 294 | 987 | 1 235 |
| 5.1 Main refinancing operations | 988 | 681 | 1 029 |
| 5.2 Longer-term refinancing operations | 306 | 306 | 206 |
| 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 | 2 | 685 | 2 |
| 7 Securities of euro area residents denominated in euro | – | – | – |
| 8 General government debt denominated in euro | – | 0 | 0 |
| 9 Intra-Eurosystem claims | 768 | 1 017 | 2 383 |
| 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 | – | 248 | 1 614 |
| 10 Other assets | 1 126 | 893 | 864 |
| Total assets | 13 339 | 13 906 | 14 831 |

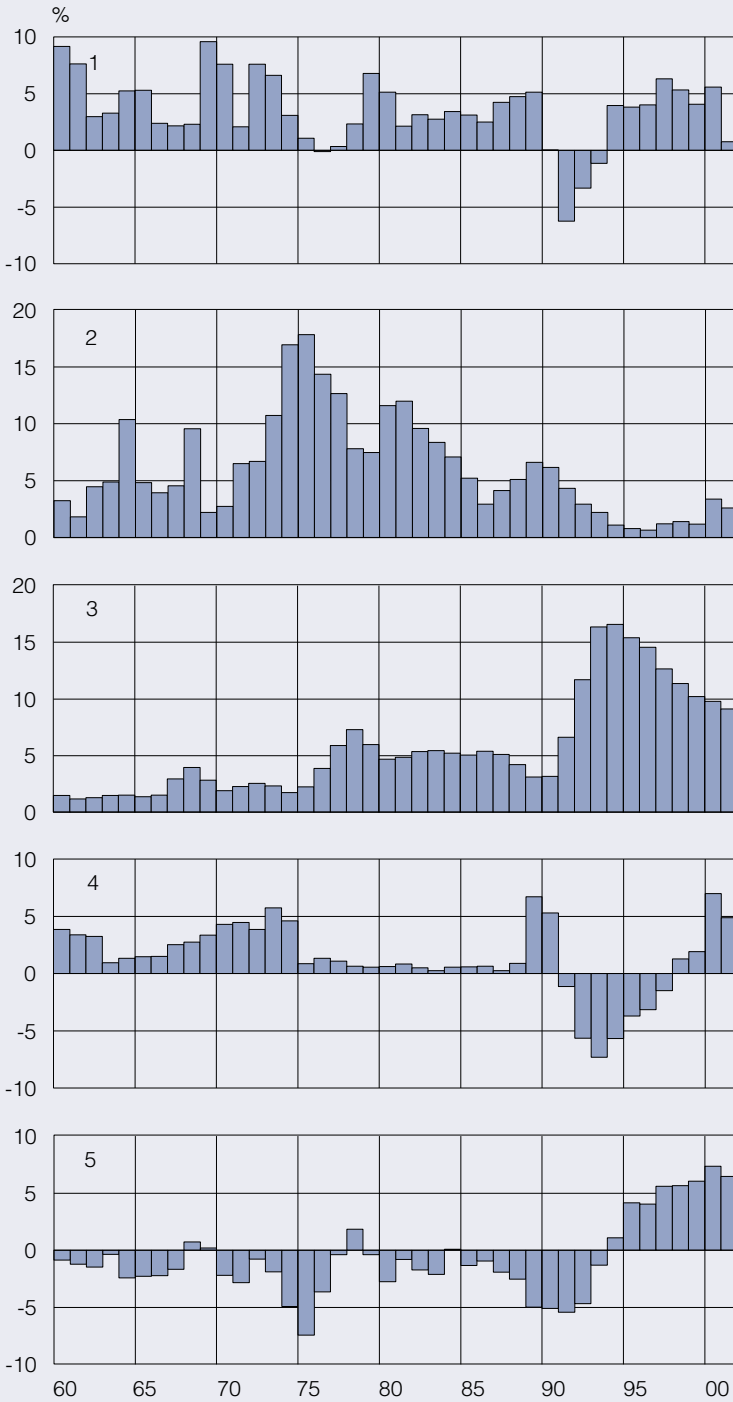
Totals/sub-totals may not add up because of rounding.

| Liabilities | 2001 | 2002 | |
|---|---------------|---------------|---------------|
| | 31.12. | 25.1. | 22.2. |
| 1 Banknotes in circulation | 2 374 | 2 810 | 3 893 |
| 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro | 3 840 | 2 676 | 1 419 |
| 2.1 Current accounts (covering the minimum reserve system) | 3 840 | 2 676 | 1 386 |
| 2.2 Deposit facility | – | – | 33 |
| 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 institutions denominated in euro | 271 | – | – |
| 4 Liabilities to other euro area residents denominated in euro | 1 | 1 | 1 |
| 4.1 General government | – | – | – |
| 4.2 Other liabilities | 1 | 1 | 1 |
| 5 Liabilities to non-euro area residents denominated in euro | 2 | 2 | 2 |
| 6 Liabilities to euro area residents denominated in foreign currency | 0 | –1 | –19 |
| 7 Liabilities to non-euro area residents denominated in foreign currency | 111 | 251 | 252 |
| 7.1 Deposits, balances and other liabilities | 111 | 251 | 252 |
| 7.2 Liabilities arising from the credit facility under the ERM II | – | – | – |
| 8 Counterpart of special drawing rights allocated by the IMF | 201 | 203 | 203 |
| 9 Intra-Eurosystem liabilities | 891 | 2 270 | 3 439 |
| 9.1 Liabilities related to promissory notes backing the issuance of ECB debt certificates | – | – | – |
| 9.2 Liabilities related to TARGET and correspondent accounts (net) | 891 | 2 270 | 3 439 |
| 9.3 Liabilities related to other operational requirements within the Eurosystem | – | – | – |
| 10 Other liabilities | 500 | 589 | 536 |
| 11 Revaluation account | 1 070 | 1 029 | 1 029 |
| 12 Capital and reserves | 4 076 | 4 076 | 4 076 |
| Total liabilities | 13 339 | 13 906 | 14 831 |

Charts

1. Finland: key economic indicators
2. Price stability in the euro area and Finland
3. Monetary aggregates for the euro area
4. Growth of the money stock in the euro area and Finland
5. Eurosystem interest rates and money market rates
6. Eurosystem (Bank of Finland) interest rates
7. Official interest rates
8. Euribor rates, daily values
9. Euribor rates, monthly values
10. Differentials between ten-year yields for Germany and selected euro area countries
11. International three-month interest rates, daily values
12. Three-month interest rates in the Nordic countries, daily values
13. International long-term interest rates, daily values
14. International three-month interest rates, monthly values
15. Three-month interest rates in the Nordic countries, monthly values
16. International long-term interest rates, monthly values
17. Yields on Finnish benchmark government bonds
18. Yields on five and ten-year Finnish government bonds
19. Bank reference rates in Finland
20. Bank deposit rates in Finland
21. Bank lending and deposit rates in Finland
22. Interest rates charged by Finnish banks on new lending to households
23. Stock of bank lending in Finland
24. Stock of bank deposits in Finland by interest rate linkage
25. Stock of bank deposits in Finland by tax treatment
26. Liabilities of Finnish monetary financial institutions included in monetary aggregates for the euro area
27. MFI deposits, euro area and Finland
28. MFI loans to private sector, euro area and Finland
29. Euro exchange rates against the US dollar and the yen, daily values
30. Euro exchange rates against the US dollar and the yen, monthly values
31. Euro exchange rates against the pound sterling and Swedish krona
32. Euro exchange rates against the Scandinavian currencies
33. Euro's external value and Finland's competitiveness indicator
34. Competitiveness indicators for Finland
35. Selected stock price indices in the euro area, daily values
36. Selected stock price indices in the euro area, monthly values
37. Listed shares in Finland: total market capitalization and non-residents' holdings
38. Securities issued in Finland
39. Bonds issued in Finland
40. Mutual funds registered in Finland
41. Central government revenue and expenditure in Finland
42. Public sector balances in Finland
43. Public debt in Finland
44. Net lending in Finland by sector
45. Finland: goods account and current account
46. Finland: services account and income account
47. Regional distribution of Finnish exports
48. Finnish exports by industry
49. Finland's foreign trade: export prices, import prices and terms of trade
50. Non-residents' portfolio investment in Finnish shares
51. Finland: direct investment
52. Finland's net international investment position
53. Industrial confidence indicator in the euro area and Finland
54. Consumer confidence indicator in the euro area and Finland
55. Finland: GDP and industrial production
56. Unemployment rate in the euro area and Finland
57. Level of industrial earnings in the euro area and Finland
58. Selected asset prices in Finland

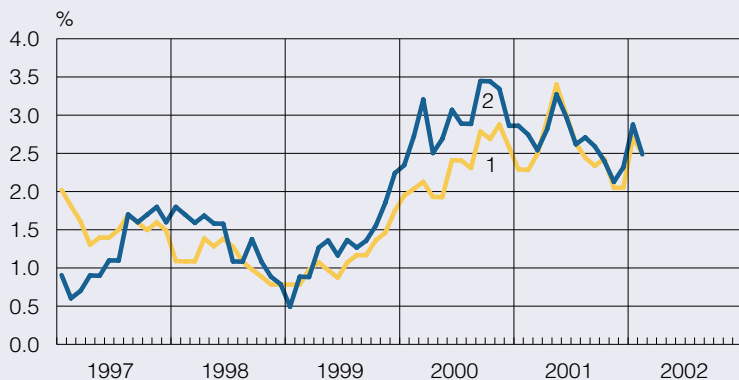
1. Finland: key economic indicators



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

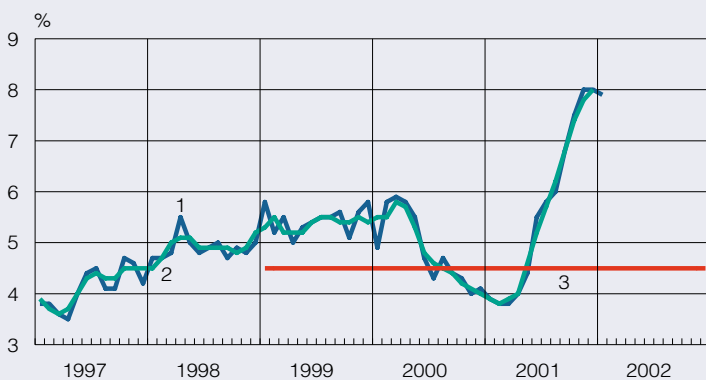


Harmonised index of consumer prices, 12-month change, %

1. Euro area countries
2. Finland

Sources: Eurostat and Statistics Finland.

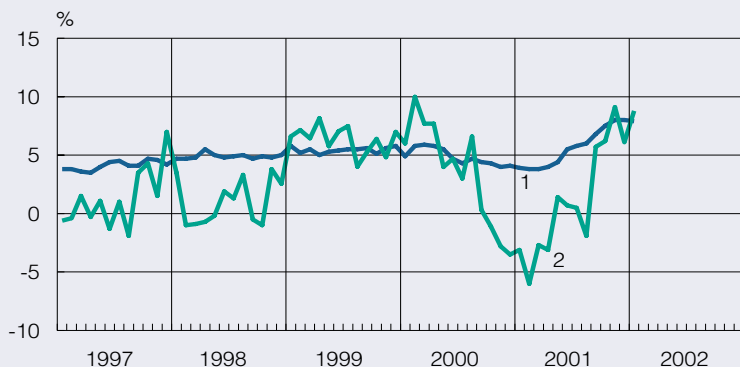
3. Monetary aggregates for the euro area



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

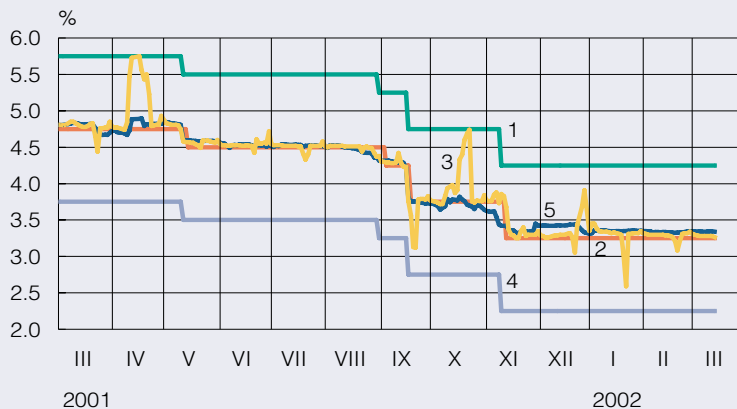


12-month percentage change

1. M3 for the euro area
2. Finnish Contribution to euro area M3

Sources: European Central Bank and Bank of Finland.

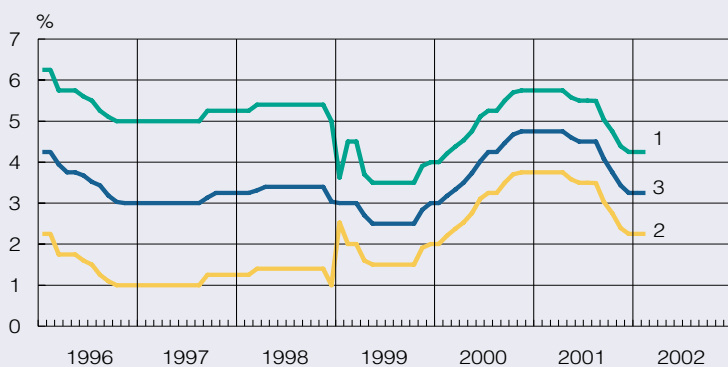
5. Eurosystem interest rates and money market rates



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

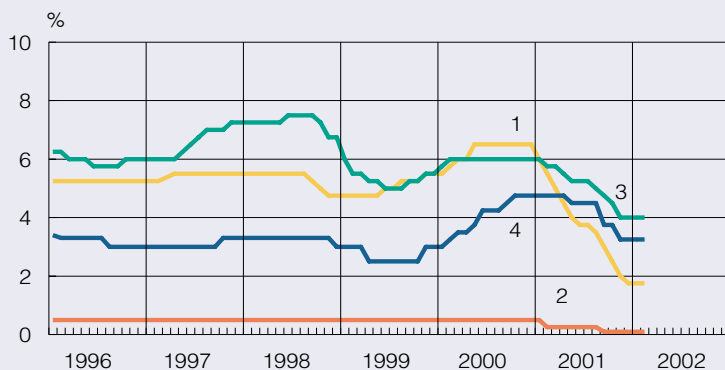


Bank of Finland interest rates until end-1998

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.

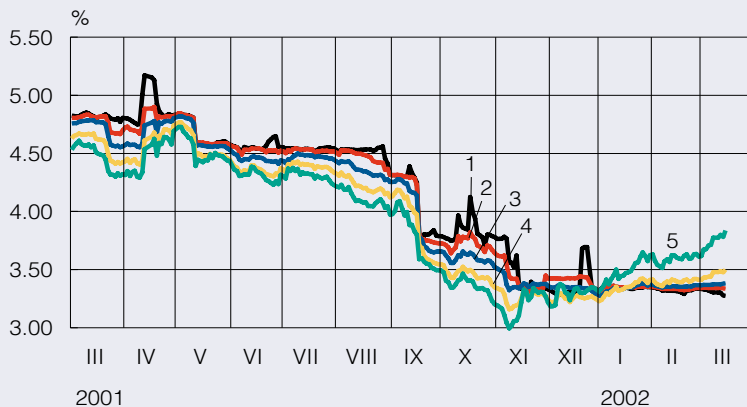
7. Official interest rates



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.

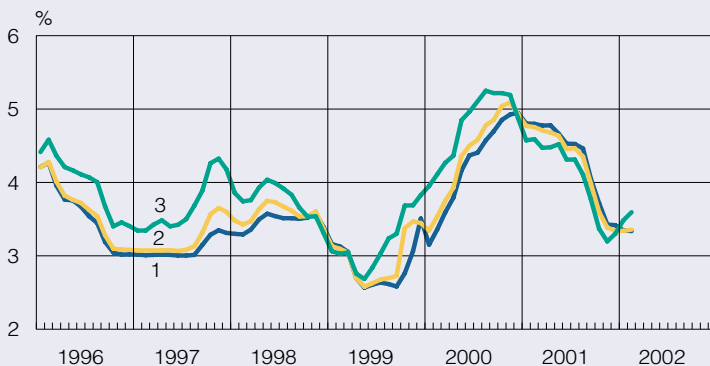
8. Euribor rates, daily values



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

Source: Reuters.

9. Euribor rates, monthly values

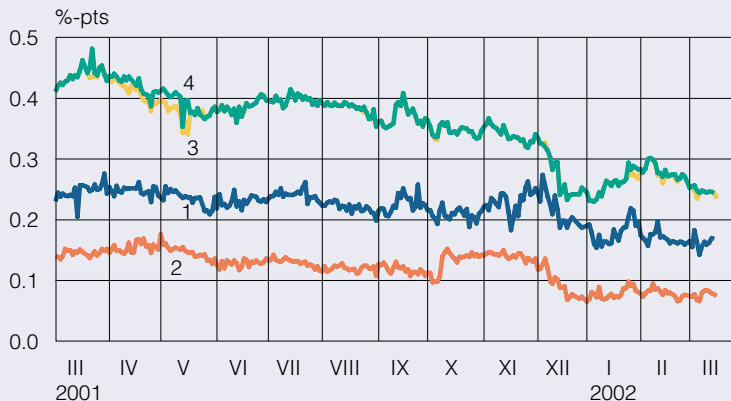


Helibor rates until end-1998

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

Source: Reuters.

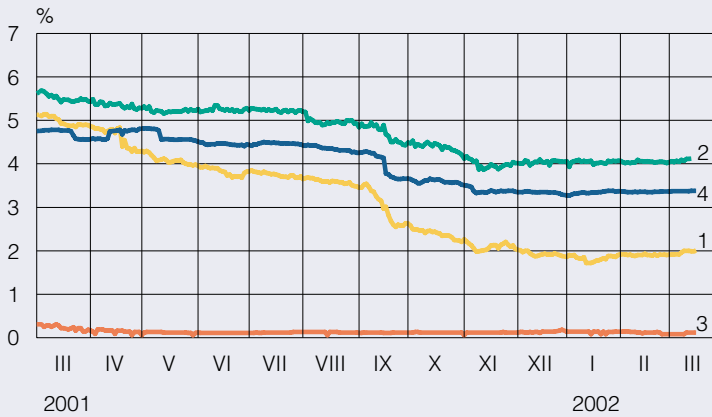
10. Differentials between ten-year yields for Germany and selected euro area countries



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

Source: Reuters.

11. International three-month interest rates, daily values

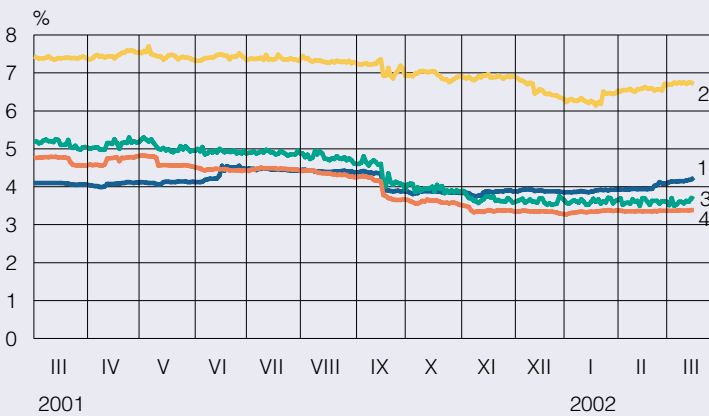


Interbank rates

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

Source: Reuters.

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

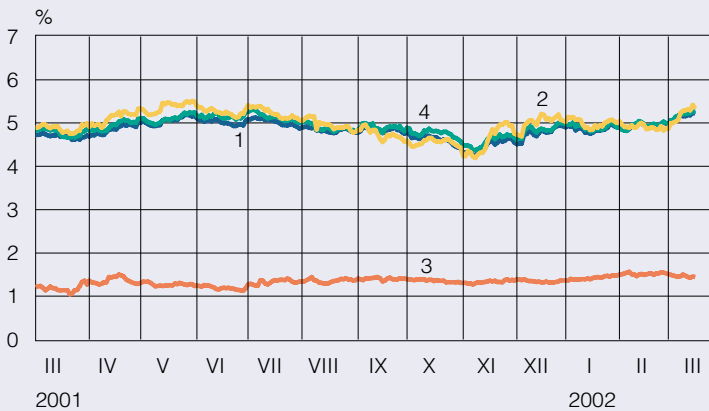


Interbank rates

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

Source: Reuters.

13. International long-term interest rates, daily values

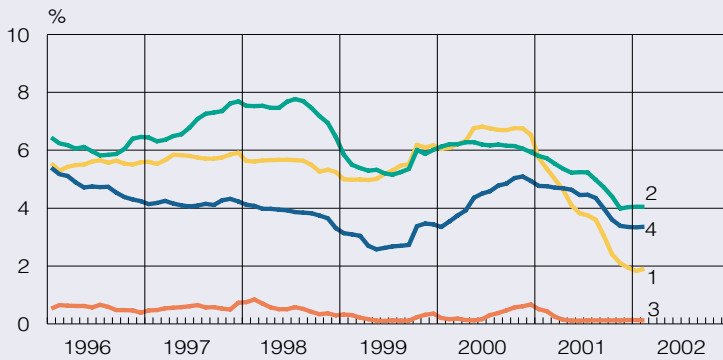


Yields on ten-year government bonds

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

Source: Reuters.

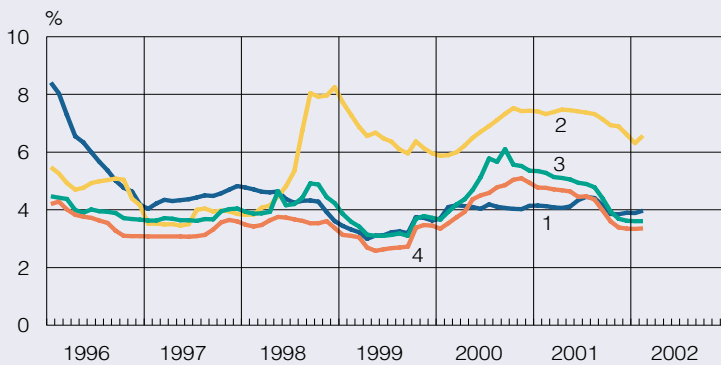
14. International three-month interest rates, monthly values



- Interbank rates
1. United States
 2. United Kingdom
 3. Japan
 4. Euro area

Source: Reuters.

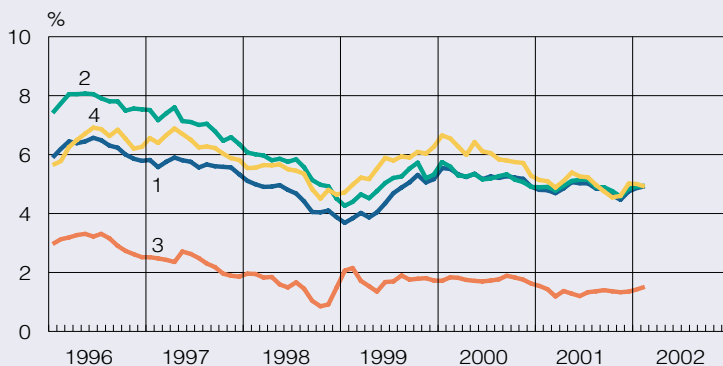
15. Three-month interest rates in the Nordic countries, monthly values



- 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

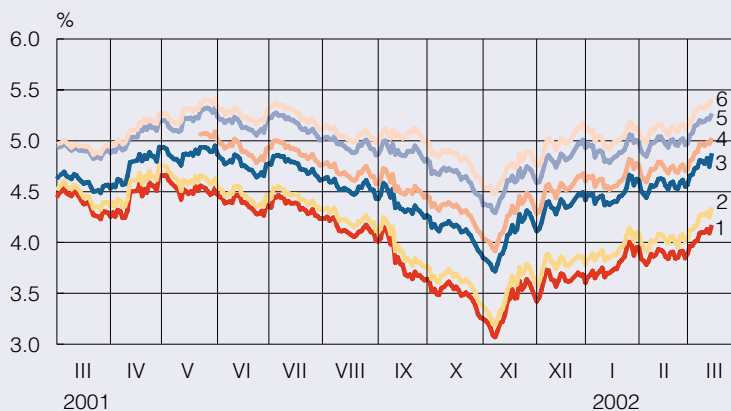


Yields on ten-year government bonds

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

Source: Reuters.

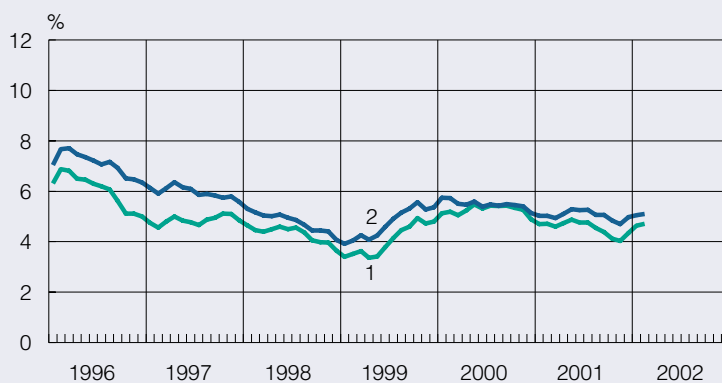
17. Yields on Finnish benchmark government bonds



1. Bond maturing on 12 November 2003, 3.75%
2. Bond maturing on 15 March 2004, 9.5%
3. Bond maturing on 18 April 2006, 7.25%
4. Bond maturing on 4 July 2007, 5%
5. Bond maturing on 25 April 2009, 5%
6. Bond maturing on 2 February 2011, 5.75%

Source: Reuters.

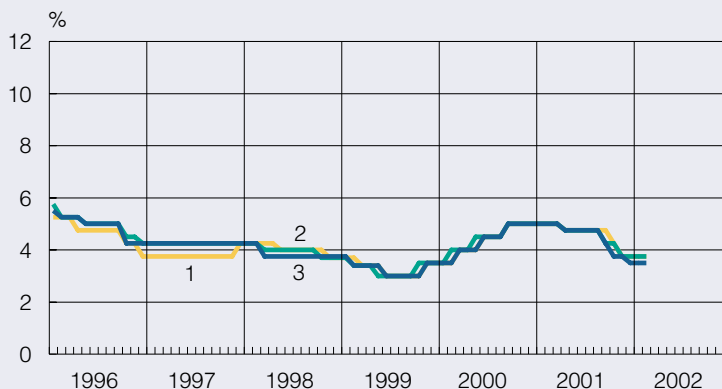
18. Yields on five and ten-year Finnish government bonds



1. 5 years
2. 10 years

Source: Reuters.

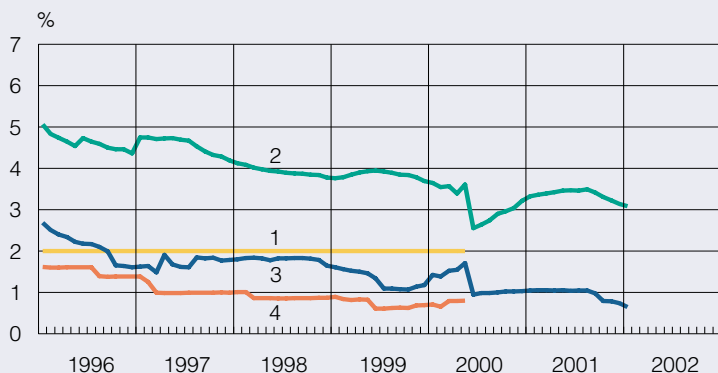
19. Bank reference rates in Finland



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

Source: Banks.

20. Bank deposit rates in Finland

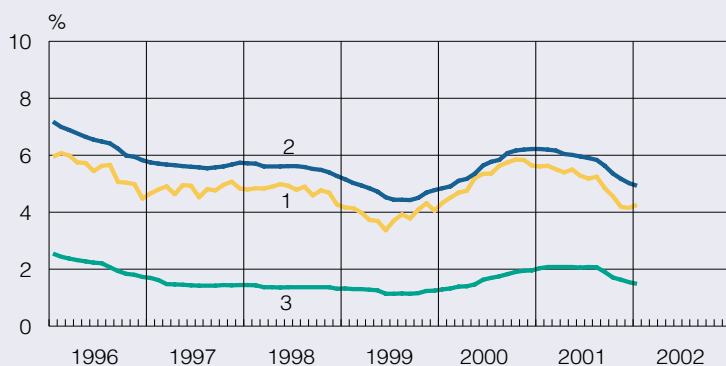


The tax treatment of deposits changed on 1 June 2000.

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.

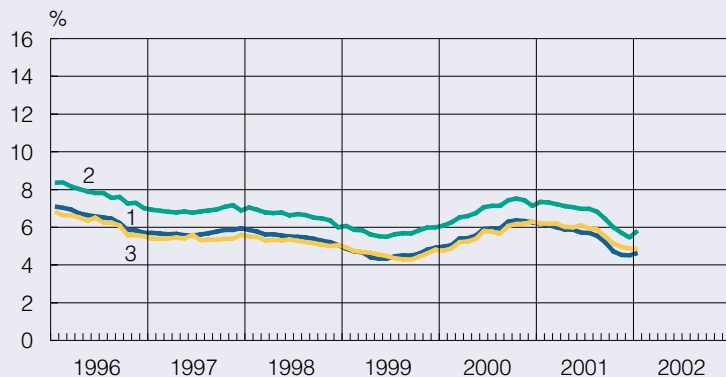
21. Bank lending and deposit rates in Finland



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

Source: Bank of Finland.

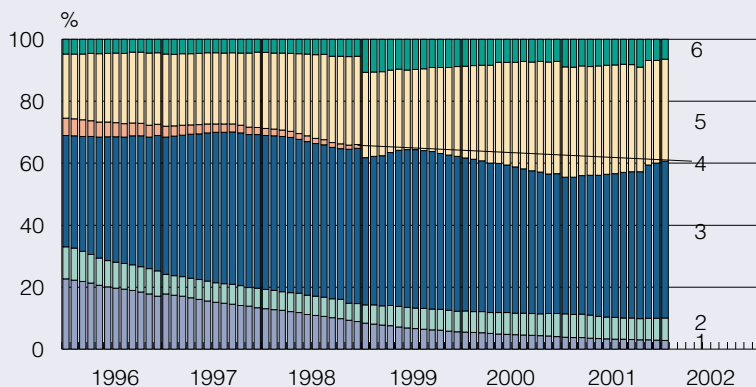
22. Interest rates charged by Finnish banks on new lending to households



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

Source: Bank of Finland.

23. Stock of bank lending in Finland

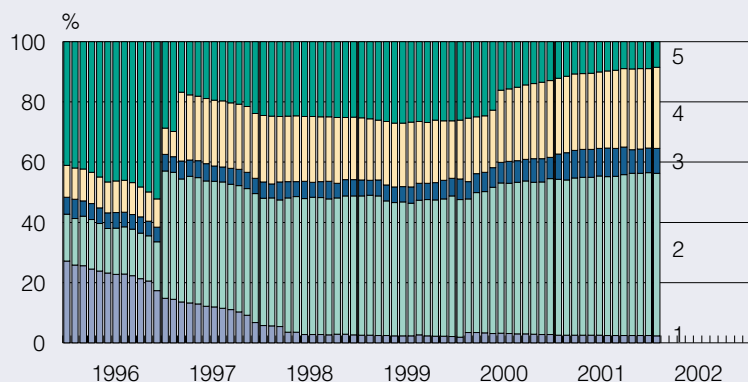


Interest rate linkages, percentages

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

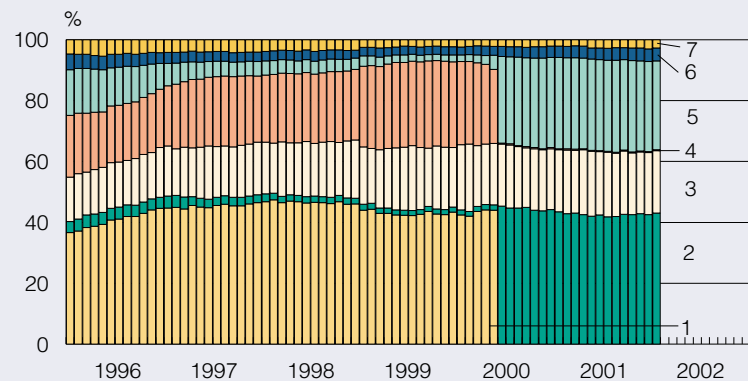


Interest rate linkages, percentages

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

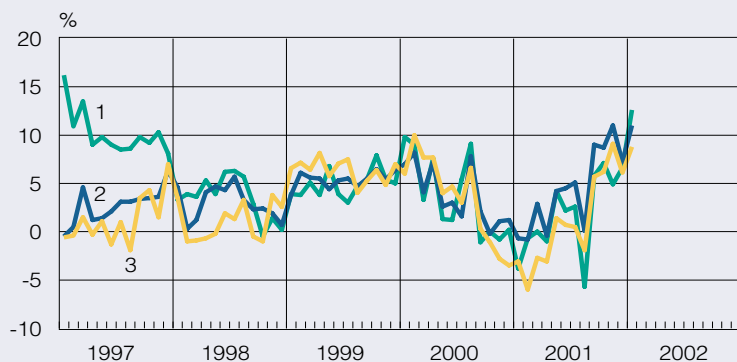


The tax treatment of deposits changed on 1 June 2000.

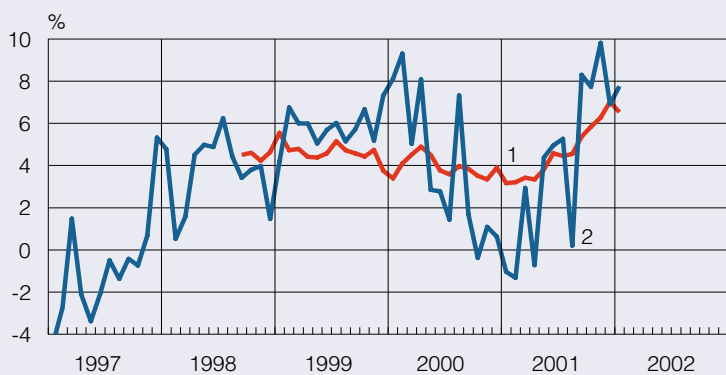
1. Tax-exempt cheque and transaction accounts
2. Cheque and transaction accounts subject to withholding tax
3. Other taxable cheque and transaction accounts
4. Tax-exempt fixed-term accounts and other accounts
5. Fixed-term accounts and other accounts subject to withholding tax
6. Other taxable accounts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

Source: Bank of Finland.

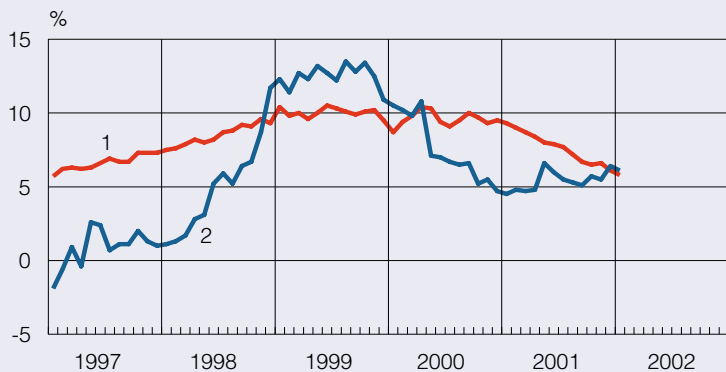
26. Liabilities of Finnish monetary financial institutions included in monetary aggregates for the euro area



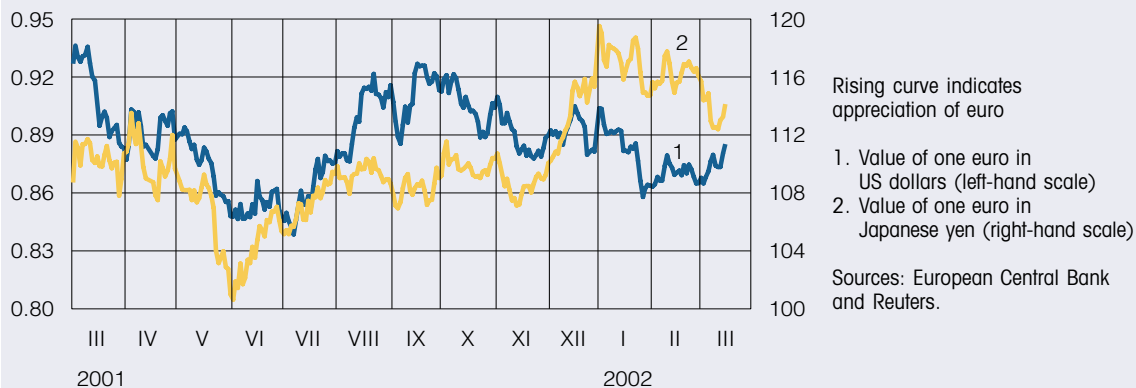
27. MFI deposits, euro area and Finland



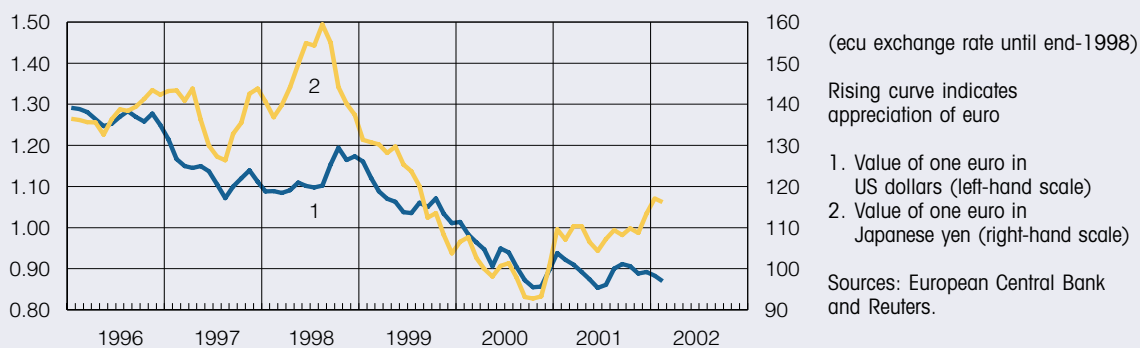
28. MFI loans to private sector, euro area and Finland



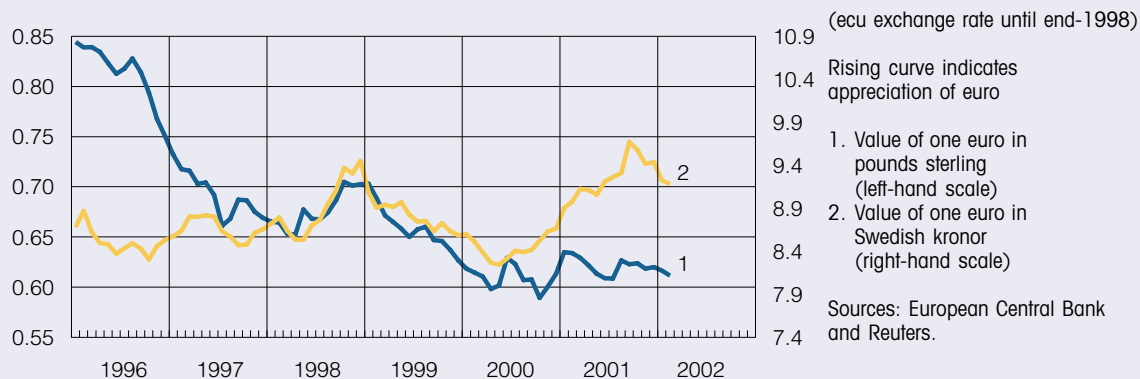
29. Euro exchange rates against the US dollar and the yen, daily values



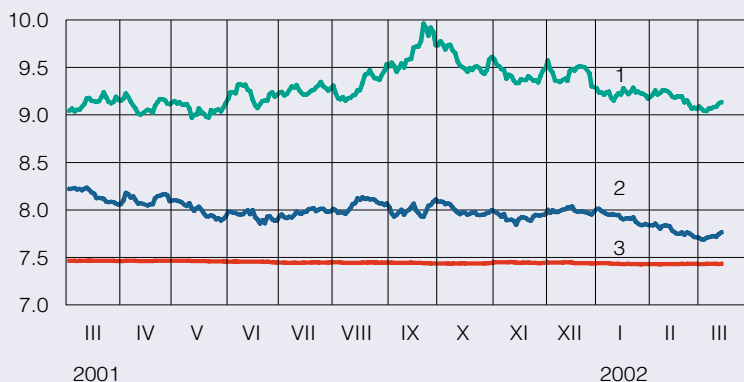
30. Euro exchange rates against the US dollar and the yen, monthly values



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



32. Euro exchange rates against the Scandinavian currencies

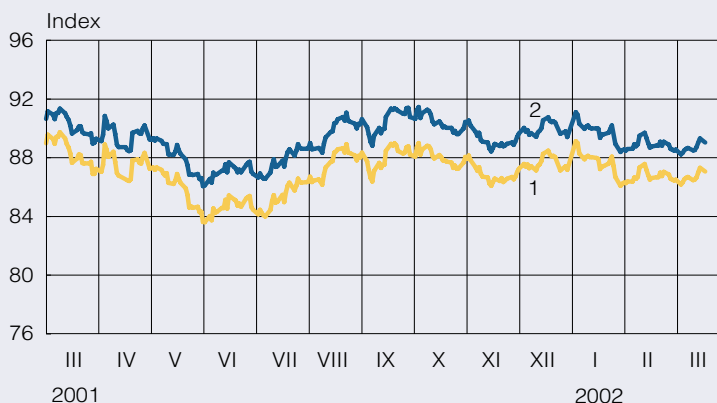


Rising curve indicates appreciation of euro

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



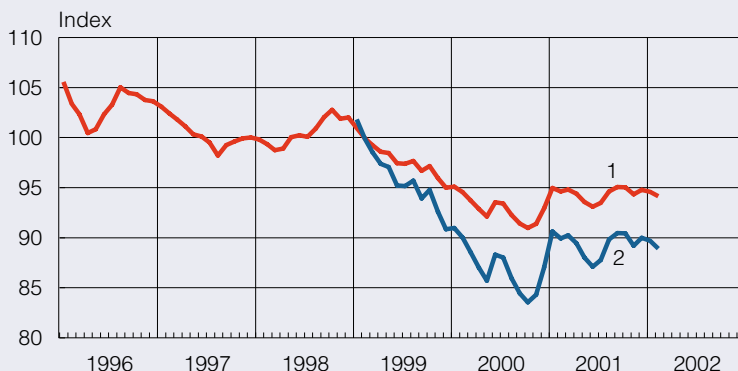
1999 Q1 = 100

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



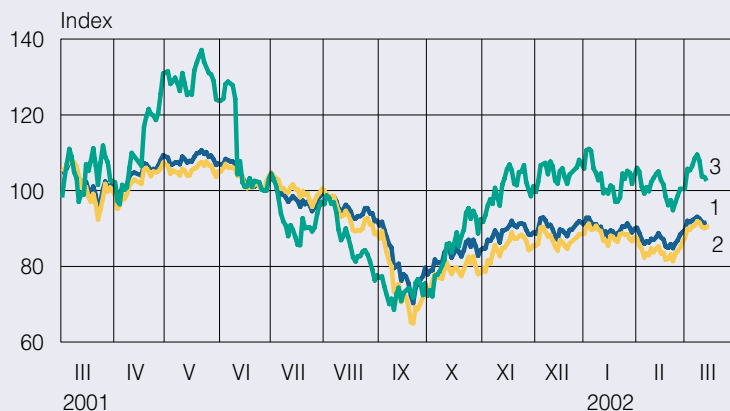
1999 Q1 = 100

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

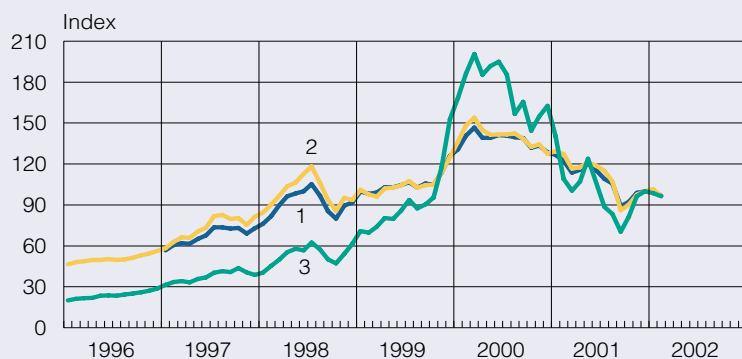


27 June 2001 = 100

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

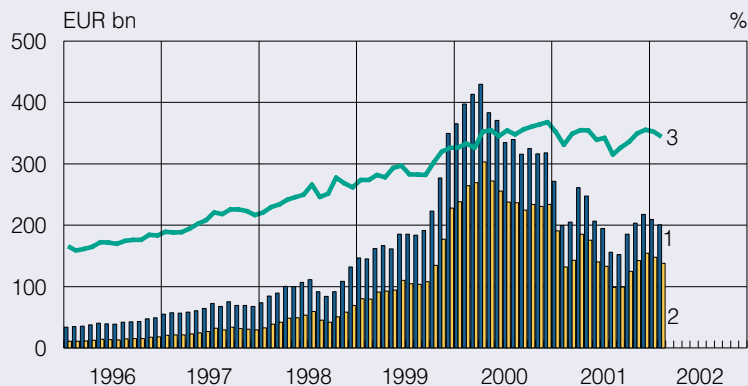


31 December 2001 = 100

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.

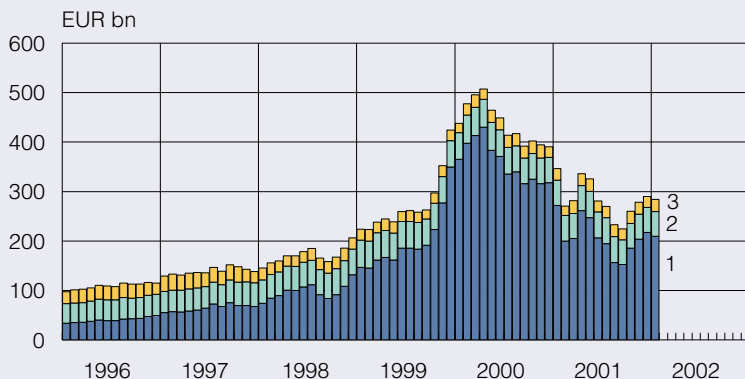
37. Listed shares in Finland: total market capitalization and non-residents' holdings



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

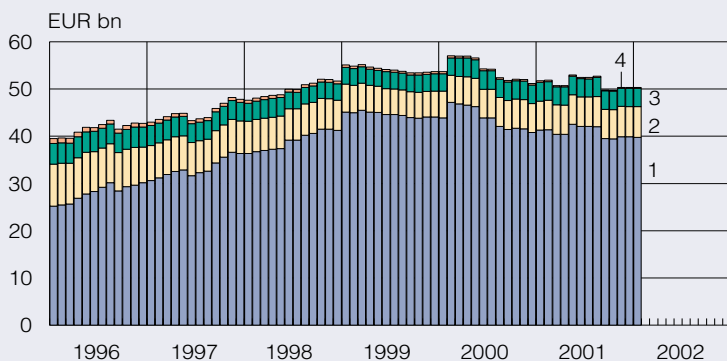


End-month stock

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

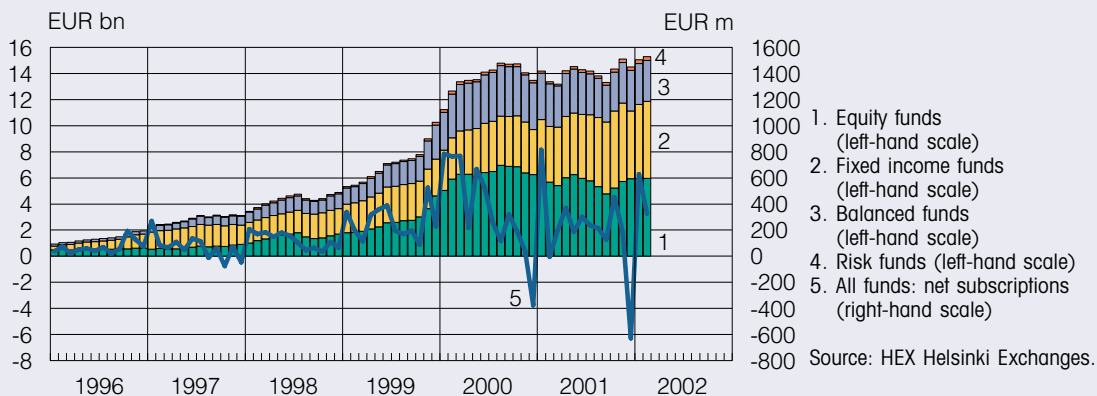


End-month stock

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

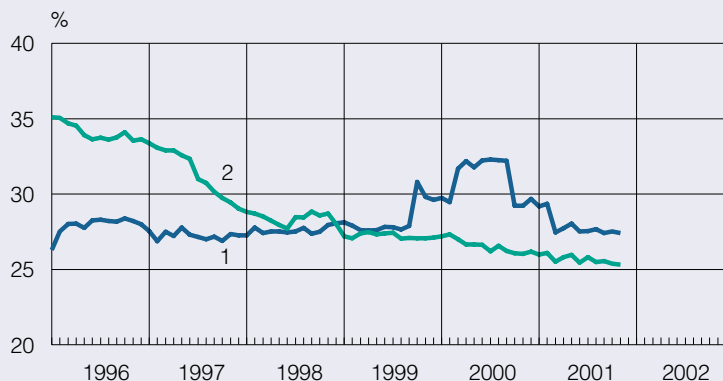
Source: Statistics Finland.

40. Mutual funds registered in Finland



Source: HEX Helsinki Exchanges.

41. Central government revenue and expenditure in Finland

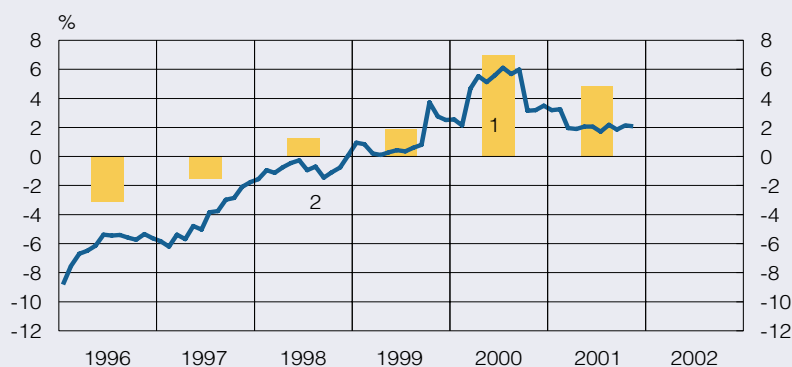


Excluding financial transactions
12-month moving totals, % of GDP

- 1. Revenue
- 2. Expenditure

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

42. Public sector balances in Finland

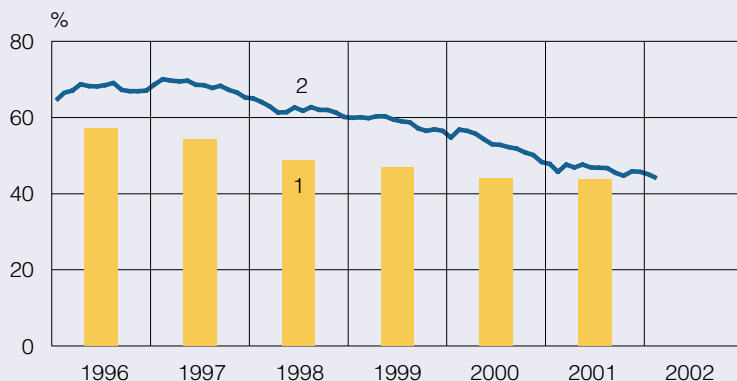


% of GDP

- 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

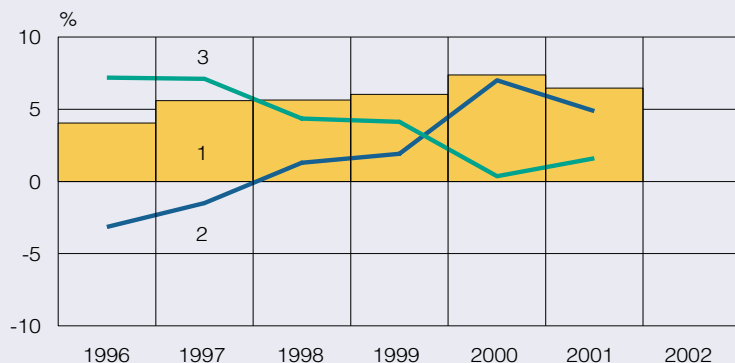


% of GDP

- 1. General government debt
- 2. Central government debt

Sources: Statistics Finland and
State Treasury.

44. Net lending in Finland by sector

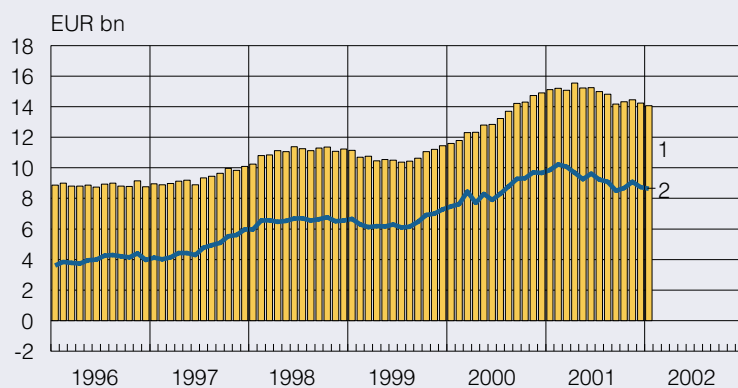


Main sectoral financial balances, % of GDP

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

Sources: Bank of Finland and Statistics Finland.

45. Finland: goods account and current account

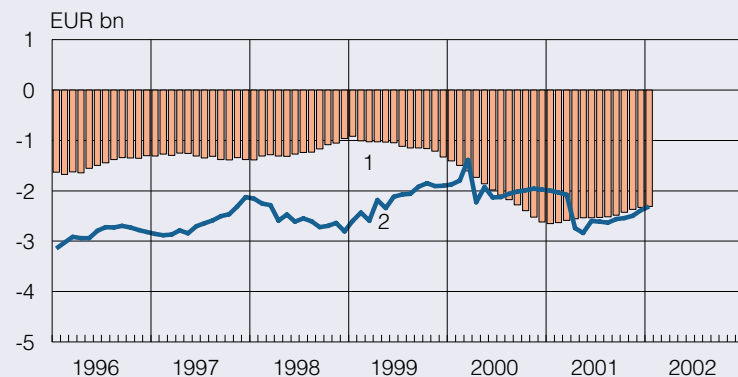


12-month moving totals

1. Goods account, fob
2. Current account

Source: Bank of Finland.

46. Finland: services account and income account

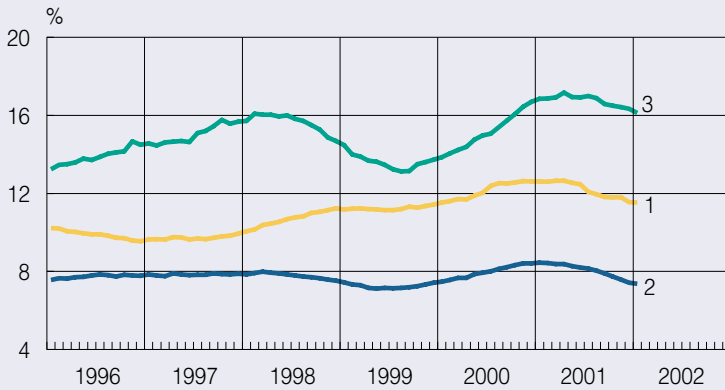


12-month moving totals

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

Source: Bank of Finland.

47. Regional distribution of Finnish exports

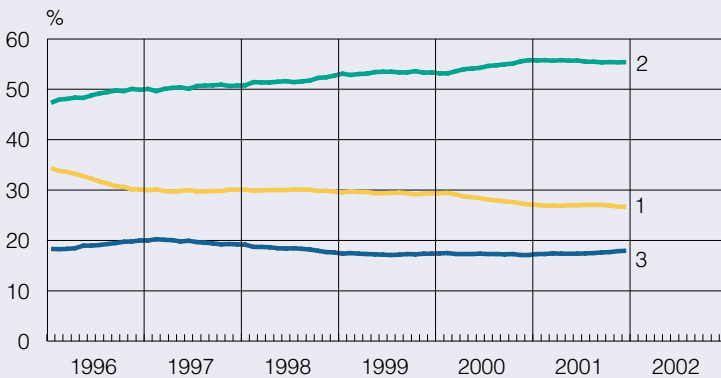


12-month moving totals, % of GDP

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

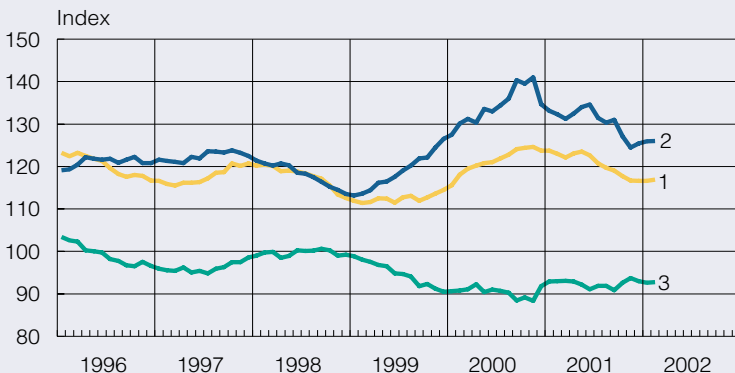


12-month moving totals, percentage of total exports

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

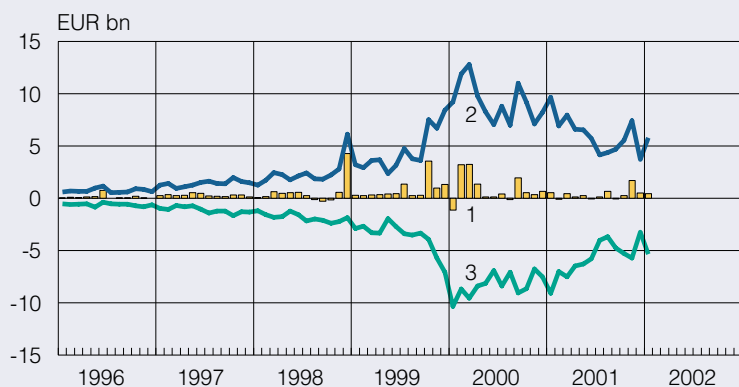


1990 = 100

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

Source: Statistics Finland.

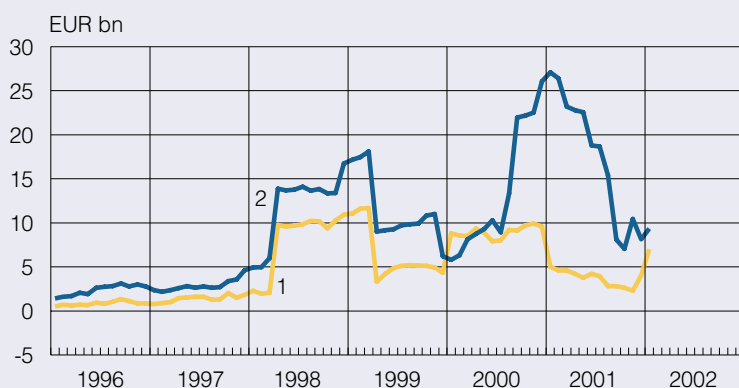
50. Non-residents' portfolio investment in Finnish shares



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

Source: Bank of Finland.

51. Finland: direct investment

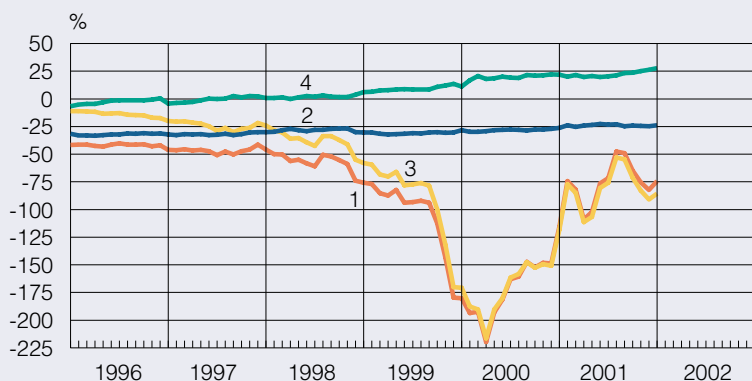


12-month moving totals

1. In Finland
2. Abroad

Source: Bank of Finland.

52. Finland's net international investment position

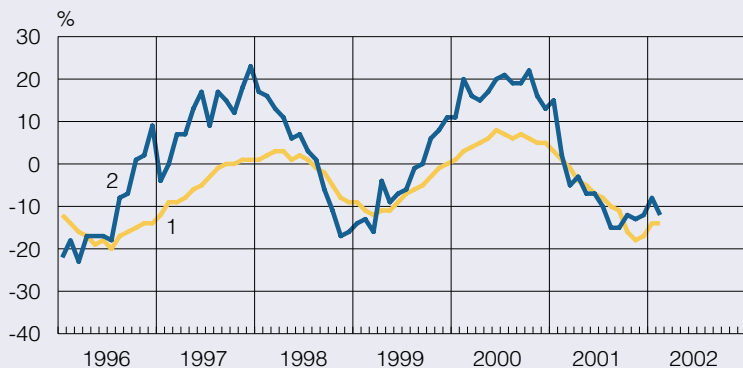


% of GDP

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.

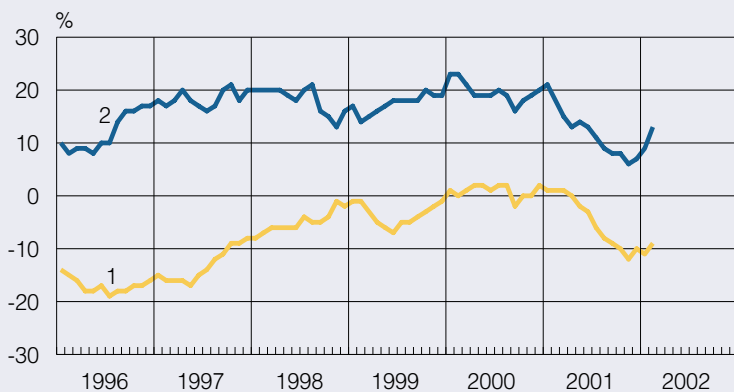
53. Industrial confidence indicator in the euro area and Finland



1. Euro area countries
2. Finland

Source: European Commission.

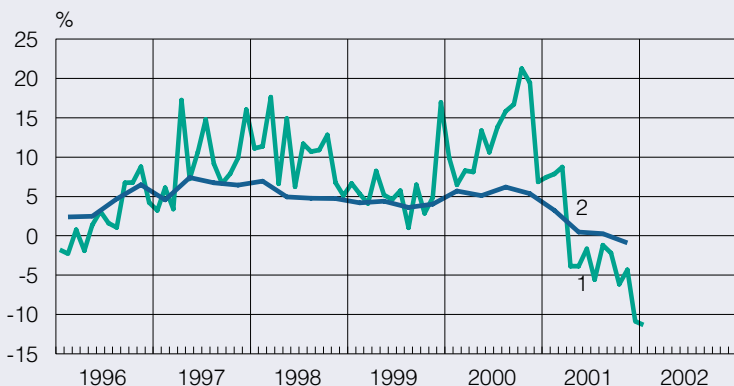
54. Consumer confidence indicator in the euro area and Finland



1. Euro area countries
2. Finland

Source: European Commission.

55. Finland: GDP and industrial production

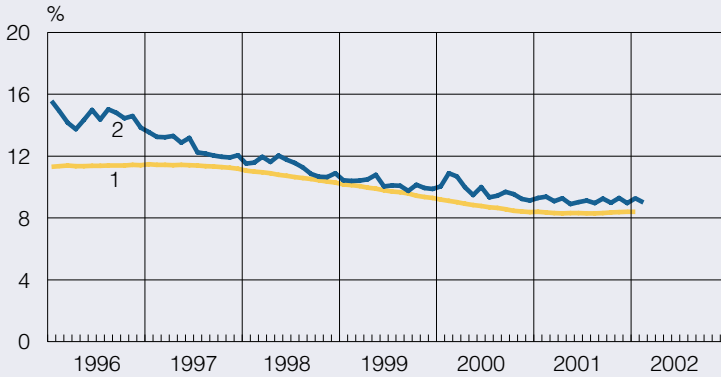


Percentage change from previous year

1. Industrial production
2. Gross domestic product

Source: Statistics Finland.

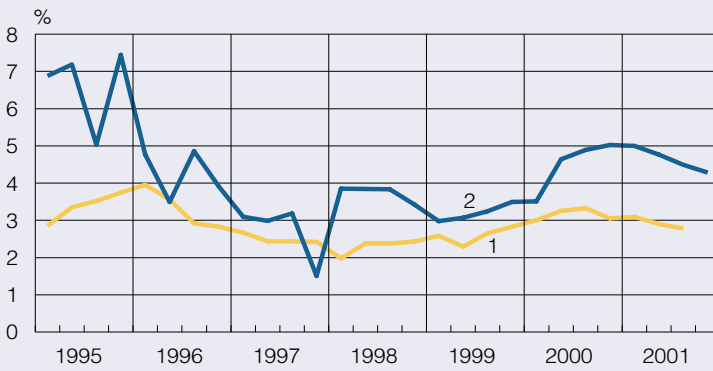
56. Unemployment rate in the euro area and Finland



- 1. Euro area countries
- 2. Finland

Sources: Eurostat, Statistics Finland and Bank of Finland.

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

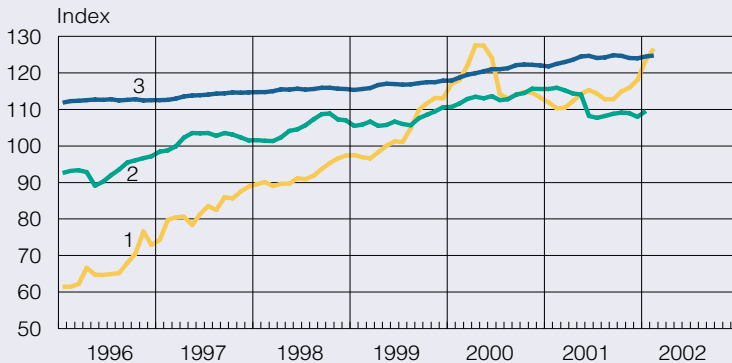


Percentage change from previous year

- 1. Euro area countries
- 2. Finland

Sources: Eurostat and Statistics Finland.

58. Selected asset prices in Finland



January 1990 = 100

- 1. Housing prices (old two-room flats; debt-free price per m²)
- 2. Stumpage prices
- 3. Consumer prices

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

Organisation of the Bank of Finland

1 February 2002

Parliamentary Supervisory Council

**Ilkka Kanerva, Chairman, Virpa Puisto, Vice Chairman,
Olavi Ala-Nissilä, Ben Zyskowitz, Antero Kekkonen, Anneli Jäähteenmäki,
Martti Tiuri, Kari Uotila, Mauri Pekkarinen**

Anton Mäkelä, Secretary to the Parliamentary Supervisory Council

The Board

Matti Vanhala
Governor

Matti Louekoski
Deputy Governor

Sinikka Salo
Member of the Board

Pentti Hakkarainen
Member of the Board

Heikki T. Hämäläinen, Secretary to the Board

Departments and other units

Antti Suvanto
Economics
Anne Brunila*

Heikki Koskenkylä
Financial Markets
Harry Leinonen*

Juha Tarkka
Research
David Mayes*

Pentti Pikkarainen
Market Operations

Antti Juusela
Communications

Urpo Levo
Payment Instruments

Martti Lehtonen
Statistics

Mauri Lehtinen
Payments and Settlement

Kjell Peter Söderlund
International Secretariat
Olli-Pekka Lehmuusaari*

Aura Laento
Personnel
Anton Mäkelä*

Terhi Kivilahti
Development and Budget

Armi Westin
Information Technology

Taina Kivelä
Internal Audit

Arno Lindgren
Legal Affairs

Antero Arimo
Publication and
Language Services

Esa Ojanen
Administration

Heikki T. Hämäläinen
Management
Secretarial Staff

Jyrki Ahvonen
Security

Pekka Sutela
Institute for
Economies in Transition

* 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.

SUOMEN PANKKI
BANK OF FINLAND
P.O. Box 160
FIN – 00101 HELSINKI
FINLAND

Tel +358 9 1831
Fax +358 9 174 872
Email publications@bof.fi

Subscriptions to the Bank of Finland Bulletin and changes in address details

Old address details

Company

.....

Name

Address

.....

New address details/subscriptions

Company

.....

Name

Address

.....

New subscription Cancellation Number of copies

