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Monetary policy and economic outlook

The economic downturn that began in the latter half of 2000 is apparently less severe than previously anticipated. The worst phase occurred in the latter part of 2001, when the terrorist attack on the United States led to a pronounced increase in uncertainty and generally shook the confidence of households and companies alike. The start of the current year marked an abrupt turn for the better, particularly in the United States. According to the latest forecasts of international organisations, eg the IMF, European Commission and OECD, economic growth in the coming years should be robust, both worldwide and in the United States. However, the recovery is not yet solidly in place, and setbacks are possible.

The recovery process is underway also in the euro area, albeit the near-term outlook includes some problems. Euro area inflation has not subsided as anticipated in recent months and, although it is expected to decelerate further this year, the risk of worse-than-expected inflation performance has increased. As regards the medium-term price stability objective, the most serious problem concerns a persistent upward trend in service prices and growing wage pressures in certain euro area countries.

EU countries' problems concerning fiscal balance in the general government sector have proven more difficult than expected. Government deficits have not been removed as promised in stability programmes but have instead increased for the second year running. The general government budget balance (or surplus) required by the Stability and Growth Pact has still not been achieved in several member countries. Greater fiscal discipline in the coming years is necessary for both credibility of EU fiscal policy cooperation and operability of the single monetary policy.

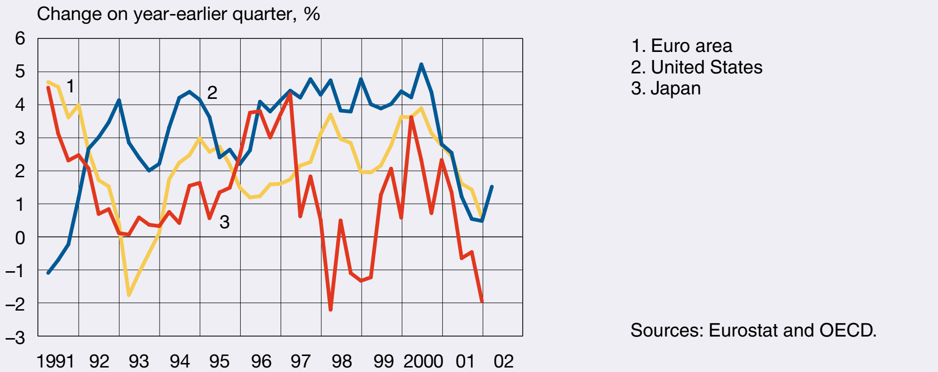
Finnish economic growth is expected to accelerate again, as export demand recovers and investment gathers momentum. This year's growth rate will nonetheless be only moderate; a return to the exceptionally robust growth path of past years is not in the offing. Public sector finances have weakened markedly. Behind this is a return to more normal tax revenues, as previous years' one-off items disappear, and rapidly increasing expenditures, leading to overruns of Government spending limits. The leeway for budget policy built up during the good years has rapidly dissipated.

World economy picking up steam

The growth rate for the world economy remained quite satisfactory during last year's downturn, ie about 2.5% pa. A positive feature was that developing and transition economies grew faster than the average. Oil producing countries such as Russia benefited from high oil prices. The industrial economies, almost without exception, grew at below-average rates, eg just over 1% for the United States and only about 1.5% for the euro area (Chart 1). For 2002 as a whole, world economic recovery will remain modest, but next year world GDP growth should accelerate to around 4%, according to the forecasts of international organisations.

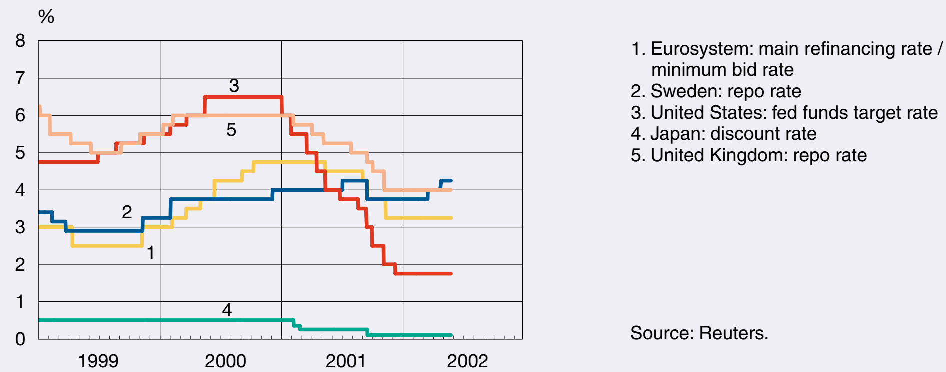
Forecasts of US economic growth have generally been revised upward in recent months, to more than 2% for this year and about 3% for 2003. The improved outlook has not, however, turned share prices upward, possibly because they remain at historically high levels relative to corporate earnings. Growth is being supported by an upturn in the inventory cycle, private consumption, and government demand, stimulated by expenditure increases in connection with the terrorist attack. On the other hand, companies' surfeit of idle capacity is holding back the recovery of investment. The prime risk for the US (and world) economy is that expectations of continued robust

Chart 1. Real GDP growth



Sources: Eurostat and OECD.

Chart 2. Policy rates



Source: Reuters.

growth of US productivity could prove to be ill-founded, which would not only destroy the foundation for growth of investment but also weaken that for consumption demand.

A key ingredient of recent US economic policy has been exceptionally expansive monetary policy, as evidenced by the lowering last December of the federal funds target rate to 1.75%, ie nearly to zero in real terms (Chart 2). The demand-impact of this interest rate stimulation is however uncertain, inter alia, because bank rates and long-term market rates have not fallen by nearly as much as policy rates. Moreover, the US private sector is presently burdened by an exceptionally high level of indebtedness. In conjunction with the growth in private sector indebtedness, the US current account deficit and external debt have increased. The indebtedness situation is actually expected to get worse, which will increase the related risks.

The risk of easy monetary policy is that inflation could accelerate, one of the warning signs being a rise in the spring in long-term interest rates. For the time being though, inflation has remained in check – below 2% pa. The annual rate of increase in the CPI excluding food and energy has nonetheless been running about 1 percentage point higher during the spring months. The risk of a pickup in inflation is problematic not only to the central bank but also to debtor entities because it could lead to a notable rise in interest rates.

Japan's debt problem is much more immediate than that facing the United States. This year's prognosis for Japan's economy envisages more shrinkage, increasing unemployment and continuing deflation. The debt problem is exceptional by international standards: Japan is generating financial surpluses and is a large net creditor vis-à-vis other countries. Its household sector saves a great deal, whereas many companies and the public sector are heavily in debt. The banks are burdened by huge amounts of problem loans to companies. Although an export revival is presently supporting the Japanese economy, it is difficult to envisage a durable recovery before the banks' debt problem is resolved and government finances are put on a solid footing.

The economies of the other Asian countries are gaining strength. Growth in many of these economies is driven by domestic demand whereas export activity is just starting to recover. The Asian countries other than Japan already make up a fourth of the world economy, so that their recovery will provide substantial support to growth prospects of other large regions. Positive developments also continue in the transition economies, driven partly by Russian demand. In contrast, the problems of Latin America continue to defy solution. The worse situation is that facing the wealthiest of these countries, Argentina, which is in the throes of a severe crisis and could possibly see its GDP drop by 20% in the course of a few years.

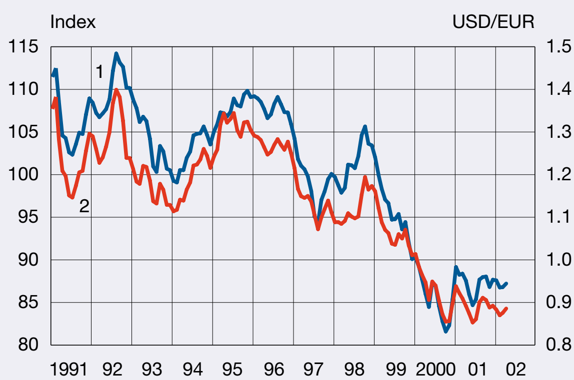
The symmetry of cyclical conditions across the large economic regions has played a part in stabilising exchange rates. The euro has for more than a year remained at a historically low level vs the dollar (Chart 3). Although the yen has not been as stable, its weakening trend also came to halt in the early part of this year. Widening differences in economic growth rates would probably elicit pressure for changes in exchange rates.

Movements in long-term interest rates have also been fairly subdued. Ten-year government bond yields in the euro area, as well as in the United States and United Kingdom, have stayed near the 5% level for over a year. Long-term inflation expectations, as revealed by interest rates, appear to have risen slightly – breaching the 2% level – especially in the United States but also in the euro area.

Euro area economy slowly turning the corner

The euro area economy is estimated to have moved onto a growth path in the early part of this year. However, the recovery has been sluggish. In the very early months, the area's external trade declined further compared to 2001 and domestic demand was slack. Exports are however expected to pick up sharply during the year as domestic demand also gains strength. Industrial production has in fact begun to

Chart 3. Euro's effective and USD exchange rates



1. Index, 1999 Q1 = 100 (LHS)[1]
2. USD-value of one euro (RHS)[2]

[1] Prior to 1999: trade-weighted index of currencies of the euro area countries; rising curve indicates euro appreciation.
[2] Until 31 Dec 1998: ecu rate.

Source: European Central Bank.

increase and, according eg to confidence surveys, the pickup should accelerate in the spring. By the end of this year, euro area economic growth could reach its potential rate – estimated at 2–2.5% pa by the European Central Bank – and forecasts of international organisations point to even faster growth in 2003.

The sluggishness of euro area investment – and consumption – is somewhat surprising, since companies are generally enjoying good profitability, financial markets are liquid, and interest rates are fairly low. However, in certain sectors, such as ICT, companies have encountered serious problems.

Despite a number of redundancies, including some prominent ones, euro area unemployment has increased by less than anticipated. The unemployment rate was just under 8.5% in the spring. In fact, the employment situation has surpassed expectations for the last couple years. Employment has apparently been buoyed by expectations of a brief recession and to an extent by realised structural reform measures. Agreement on part-time and other flexible working arrangements has been made easier; labour taxation and employment-related costs have been reduced; and youth employment has been subsidised with public funds. Wage restraint in recent years has also played a role in job creation, albeit last year the rate of increase in wages did not react to slowing output growth and a pronounced drop in productivity growth.

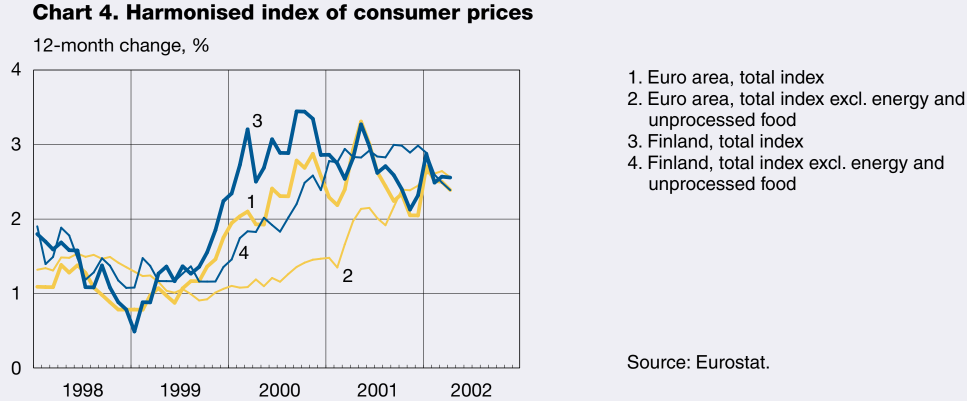
Last year the euro area general government deficit increased and several countries did not meet their stability programme objectives. Tax revenues were smaller than projected, and in several countries substantial tax reductions entered into effect. There is a danger that deficits will increase again this year and thus, for some countries, a notable risk of breaching the treaty-defined reference value of 3% of GDP. If countries do not, within the next few years, achieve at least a balanced general government fiscal position, as required by the Stability and Growth Pact, the credibility of euro area fiscal policy cooperation could be jeopardised.

Euro area inflation at upper limit for price stability

During the last two years, the rate of increase in euro area consumer prices has slightly exceeded 2% pa – the upper limit for price stability set by the ECB Council in 1998 (Chart 4). In recent inflation forecasts of international organisations for years 2002 and 2003 inflation is projected to remain at about 2%.

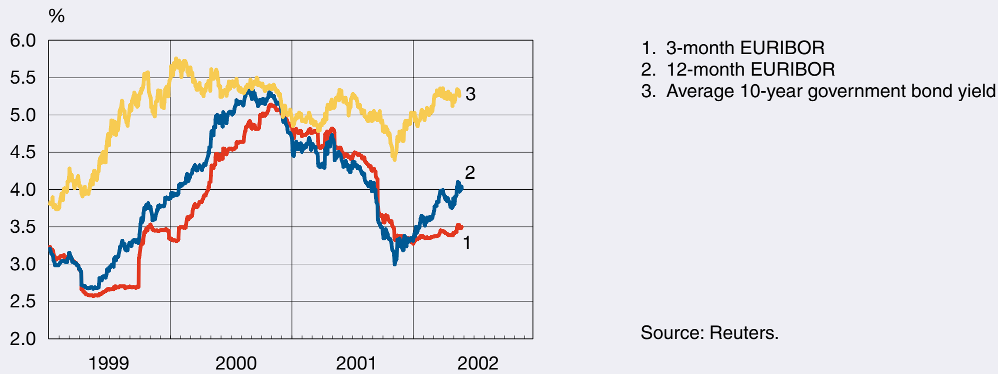
Following an inflation spike at the turn of the year, the rise in euro area consumer prices has slowed – but only slightly – during the spring months. The main reason for the slowing was the removal of the effect of some pronounced year-earlier price rises. The worse-than-expected inflation performance derives, inter alia, from a renewed rise in the price of crude oil as well as persistent service price inflation.

Chart 4. Harmonised index of consumer prices



Source: Eurostat.

Chart 5. Euro area interest rates



Source: Reuters.

The rise in wages in the euro area has been quite subdued in recent years, but it appears that wage pressures are building up in certain sectors. If a broad-based wage inflation gets underway, maintenance of price stability could require a notable tightening of monetary policy.

Easy financial conditions in euro area

The changeover at the start of the year from national to euro banknotes and coins – certainly a large operation – was completed virtually without problems as regards monetary policy. The effects on euro area liquidity were minor. Much public discussion has focused on the inflation effects of price rounding and cost pass-through in connection with the changeover. Although upward rounding was detected in some service and other prices, the overall impact has been notably moderate and temporary, according to several estimates.

ECB monetary policy strategy has stressed the importance of the growth rates of money supply and credit as factors affecting inflation. The growth rate of the euro area broad monetary aggregate (M3) accelerated to 8% pa toward the end of last year. The increase in money demand was viewed as partly the result of uncertainty stemming from the decline in share prices and terrorist attack of last autumn. In any case, liquidity conditions in the euro area remained highly accommodative. This year the growth of available financing has moderated, but mopping up of the excess is still in progress. The growth rate of lending by euro area monetary financial institutions, which was about 10% pa during the first two years following launch of the euro, has slowed to about half that rate, albeit this is still a very high rate. Particular attention must now be paid to the abundance of available financing because money supply growth has clearly exceeded its reference value and inflation its medium-term upper limit for price stability.

The Eurosystem's minimum bid rate on the main refinancing operations was reduced four times last year and, since 9 November 2001, has stood at 3.25%. Short-term market rates have subsequently fluctuated in line with market expectations of interest rates, which have followed changes in growth and inflation prospects. For example, the twelve-month EURIBOR was around 3% at the end of 2001 but has since risen above 4% (Chart 5). Both the ECB policy rate and the yield on long-term government bonds (in real terms) have been below their respective long-run averages in 2001 and 2002.

Finland's economy also gradually gaining momentum

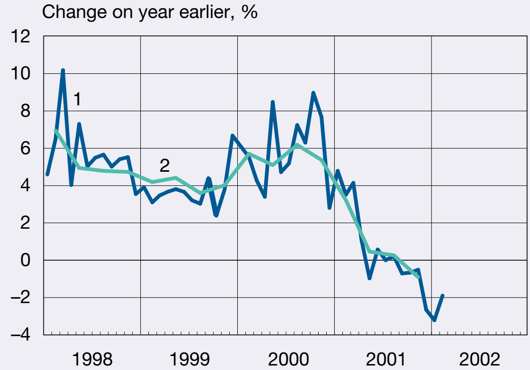
Finnish economic growth slowed considerably last year, to just under 1%, which was one of the lowest growth rates in the euro area (Chart 6). The world economic recession resulted in a reduction in export demand and turned output downward in many industrial sectors such as electronics and forestry (Chart 7). Repercussions on the rest of the economy nonetheless remained fairly moderate, nor was the sluggishness of industrial production clearly reflected eg in the employment situation. Positive developments were supported by the strong financial position of the corporate sector. The macro-impact of the export industry slowdown was in fact less than one would expect judging by the sharp drop in GDP growth.

Production in the forestry and electronics industries was still subdued in the early months of this year, albeit the negative annual growth was affected by the high levels of activity posted in the early part of 2001. Total industrial production in the first quarter of this year was lower than in the year-earlier period. However it is estimated that output has picked up already in the spring and that growth will accelerate in the latter part of the year. The electronics industry could grow faster than the rest of the industrial sector. These favourable projections are based, inter alia, on the fact that survey data indicate that industrial confidence has increased. Despite this, companies' prospects are marred by a large dose of uncertainty, reflected eg in the continued cautiousness of industrial companies' investment expectations.

It is expected that Finnish exports will recover in the course of the spring. It is, however, difficult to

Chart 6. Finland's total output

Change on year earlier, %

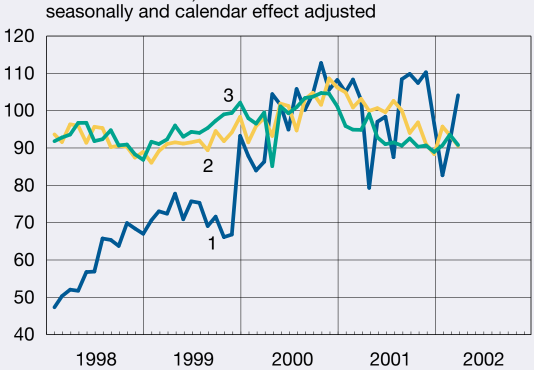


1. Monthly indicator of total output
2. GDP

Source: Statistics Finland.

Chart 7. Manufacturing output by sector

Index 2000 = 100,
seasonally and calendar effect adjusted

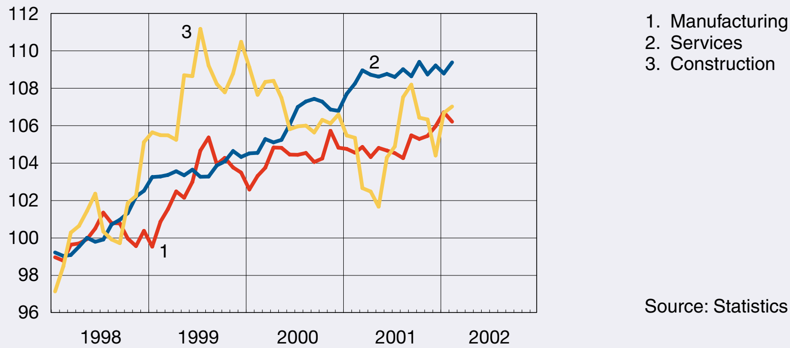


1. Electronics industry
2. Metals excl. electronics
3. Forest industries

Source: Statistics Finland.

Chart 8. Employment in Finland by sector

Index 1998 = 100,
seasonally adjusted, 3-month moving average



Source: Statistics Finland.

forecast exports, as these are sensitive not only to world demand for products of the electronics and forestry industries but also to the allocation of output among production units of different countries. Much for this reason, present projections for developments in exports – and thus in total Finnish output – are somewhat at odds with each other. However, in light of recently available data, the Bank of Finland's macroeconomic forecast – published in March – still appears to be on target as regards growth. This year GDP growth should increase to about 1.5% and next year possibly to around 3%, bolstered by increasing exports and gradual recovery of investment.

Private consumption is underpinned by persistently strong consumer confidence, which in turn is bolstered by fairly good developments in employment. Households' confident outlook is also reflected in the housing markets, where activity has been brisk during the spring, at least in the country's growth centres. Although a pickup is not yet discernible in housing investment, even here the bottom seems to have been reached, according to business tendency survey results for construction. The low level of interest rates has fostered housing purchases.

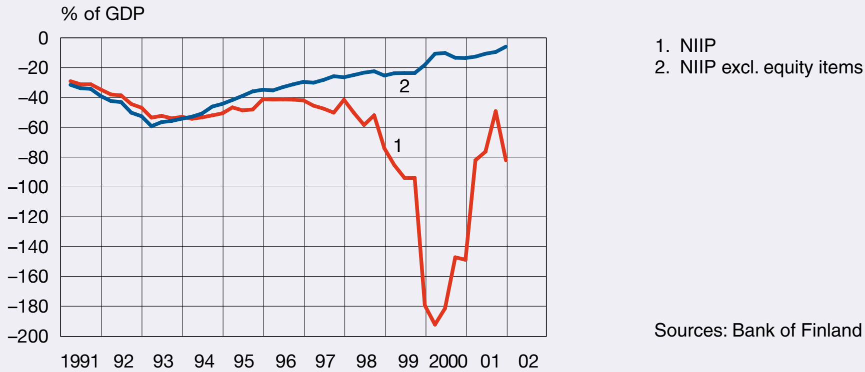
Since spring of 2000, Finland's unemployment rate has remained around 9%, ie slightly above the average for the euro area. The employment situation also in Finland has developed more positively than earlier anticipated (Chart 8). This has been partly the result of moderate wage settlements in recent years, some improvement in labour market operability, and expectations of a brief recession. In connection with the last mentioned phenomenon, the growth recovery may not become as visible in near-term employment developments, since companies have to improve their productivity, which declined during the recession. And because the labour supply can be expected to increase as the economic outlook improves, the unemployment rate could increase slightly this year.

Inflation easing moderately

The rate of increase in Finnish consumer prices slowed after the start of this year, as was the case in the rest of the euro area. The slowdown was halted by a rise in import prices, which was more pronounced than expected, due mainly to a rise in the price of oil. For the year as a whole, inflation could turn out to be marginally higher than forecasted in March by the Bank of Finland. As measured by the harmonised index of consumer prices (HICP), the inflation rate is expected to modestly exceed 2%, reflecting a slowing of almost a half percentage point compared to 2001. A further slowing of inflation is projected for 2003. Even so, inflation should exceed the March forecast, as a higher-than-forecasted rise in import prices now seems likely, due partly to a recovery of world economic growth.

The February-April rate of increase in consumer prices, as measured by the Finnish CPI, was 1.8% pa, while HICP inflation was somewhat higher, ie

Chart 9. Net international investment position



Sources: Bank of Finland and Statistics Finland.

about 2.5% pa. The difference was to a significant degree due to reduced capital costs of owner-occupied housing, which are included only in the national index, and could narrow in the latter part of the year. It is estimated that service prices will continue to increase faster than average because of rising labour costs. Of the other prices, housing prices have increased mainly in the Greater Helsinki area and other growth centres.

Last year wages in Finland increased fairly substantially and the level of earnings rose by 4.5%. At the same time, productivity growth collapsed, albeit largely because of a temporary output decline in the forestry and electronics industries. It appears that productivity growth will be feeble again this year, while wage increases are on the rise. This is a matter of some concern as regards the employment situation since, in the single currency environment, wage costs are directly linked to employment.

Shrinking space for manoeuvre in public finances

Finland's general government surplus declined last year, from 7% to just under 5% of GDP, largely because of shrinkage of earlier years' exceptionally large tax revenues to a more normal level. This year, the surplus will again decline considerably.

Tax revenues turned sharply downward toward the end of last year. Corporate tax revenue, for example, was virtually nil, as late tax payments arrived only in the early months of this year. Because of companies' weakening financial results, tax revenue growth will be sluggish again this year. Tax cuts in connection with earned income, amounting to more than 1% of total wages, will also slow the growth of tax revenue in 2002.

Central government expenditure, in contrast, will increase this year faster than in recent years and will exceed the Government's original spending limits. The central government budget will in fact record only a modest surplus in 2002, as measured by net lending. The local government sector is running a small deficit in 2002, as in 2001. The general government surplus in fact derives largely from cumulated savings of social security funds. The leeway for central government budget policy has thus faded quickly, which presents an obstacle to the financing of essential structural increases in expenditure and reduces the room for future fiscal policy manoeuvring.

Finnish economy in financial surplus

One of the strengths of the Finnish economy is its substantial surplus in the current account, while an offsetting weakness is the sluggishness of domestic investment. According to the Bank of Finland's March forecast, the excess of national savings over investment in 2001-2003 will amount to more than 6%

of GDP. The capital exports corresponding to the current account surplus will be realised largely via foreign investment of domestic social security funds' surpluses. Moreover, Finnish companies' outward direct investment substantially exceeds inward direct investment.

The financial surplus has led to a situation wherein Finland, having been heavily in debt in past decades, is becoming an international creditor country (Chart 9). At least this is the case if one ignores equity finance (mainly investments in company shares), where Finland's net position is clearly negative. The improved debt position reduces the crisis-proneness of the Finnish economy.

The Finnish financial markets have had abundant liquidity for some time now. Finnish banks' lending and deposits have for the most part grown in line with corresponding euro area developments. During the spring, the stock of lending grew at an annual rate of about 7%. Companies' borrowing from banks has declined recently, in relative terms, whereas banks have granted housing loans at a rapidly increasing rate for several years. Copious lending has stimulated housing construction but has also been a factor in keeping housing prices at a high level.

The rapid growth in the amount of housing loans could become a problem to certain households if they are not prepared for changes in interest rates when they decide to borrow. Although euro area interest rates fluctuate less than in the Finnish experience, interest costs on loans could still change significantly from current levels.

30 May 2002

■ Key words: inflation, monetary policy, economic situation

Financial stability in Finland

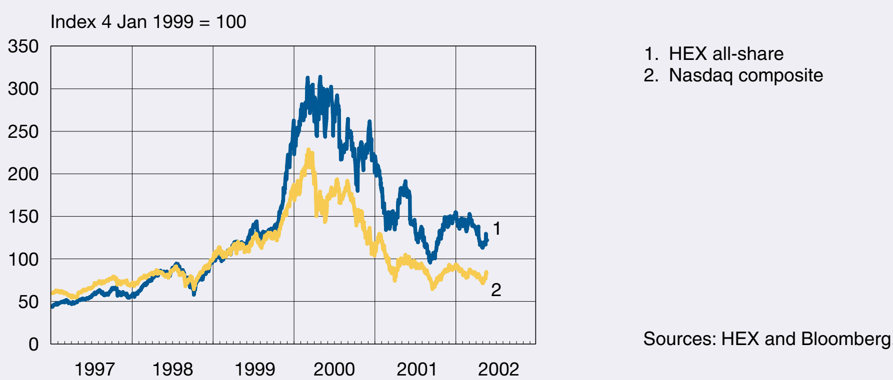
Financial stability is closely tied to the prevailing economic conditions. Signs of improvement in the economic outlook at the start of the year have reduced uncertainty in the financial markets. Despite this, many question marks remain concerning the economic situation.

Possible setbacks to economic recovery and other external disruptions could have a stronger-than-usual influence on international financial markets, whose resilience has been reduced by slack economic conditions as well as incidents such as the terrorist attack of last autumn, the critical situation in the Middle-East and the Enron scandal, as well as a number of country-specific economic and financial problems. Thus there is every reason to pay close attention to upcoming economic developments also from the perspective of stability of international financial markets.

Several encouraging signs have been identified in the US economy in the early part of the year, and a recovery is also anticipated for the world economy. There is still an element of uncertainty connected with the recovery, which is reflected in share prices in the early part of the year (Chart 1). Among the causes for concern are the Middle-East crisis, the possibility of further terrorist attacks, the lack of transparency in the annual accounts of some large conglomerates, and the financial condition of ICT companies. The number of bankruptcies has increased and is expected to peak at the turn of the recession. US economic problems are based partly on a current account deficit and other economic imbalances. As economic growth is currently dependent on consumption demand of heavily indebted households, shocks to households' asset positions could put US economic recovery at risk and cause problems in the financial sector.

Overoptimistic evaluations of corporate profitability and the speed of economic recovery can, in itself, threaten the stability of the international financial markets. If forecasts prove to be systematically overoptimistic, the value of financial claims could adjust abruptly downward and further hamper economic recovery. Uncertainty over corporate profitability has recently increased because of concern as to whether companies are providing the markets with information that accurately reflects their financial position. Suspicions were aroused particularly in the

Chart 1. Stock indices



Sources: HEX and Bloomberg.

United States, with the failure of the Enron Corporation and problems that surfaced in its accounting and auditing procedures. The markets have also come to the conclusion that financial information released by companies is not always sufficiently comparable for proper assessment of financial condition.

From a global perspective, conditions in the banking sector – excluding investment banks – appear to be stable. The problems faced by some investment banks have forced them to make as much as a third of their workforce redundant. Although the financial results posted by other banks around the world have been trending downward in 2001 and in early 2002, their solvency ratios have generally remained high. However, certain sectors within the banking system are clearly facing risks that – if realised – could jeopardise system stability.

Regulatory arbitrage poses a new risk to the stability of global financial markets. Financial conglomerates composed of large international banks and insurance companies may be tempted to circumvent regulations in order to take advantage of the latest financial innovations. Shifting risky receivables off the balance sheet with the help of credit derivatives can beautify the balance sheet, but can also lead to Enron-type hiding of risks from market participants and supervisory authorities.

As regards the international financial system, the Japanese banking sector is a prime concern. Estimates of total non-performing assets vary considerably, which has only served to add to reservations about the true state of the Japanese banking sector. In April the Japanese financial supervision authority tightened requirements on provisions for problem loans. The markets, however, perceived the change as inadequate. Expectations of revitalisation of the Japanese banking sector continue to fade, as is directly reflected eg in the country's credit rating. The Japanese Government, to be sure, estimates that the economy is already in the recovery phase.

The economic situation in Argentina remains highly problematic, and the process of restoring the health of the country's banking sector is still far from complete. In the spring the country's banking system was effectively shut down. To date, Argentina's economic difficulties have not had a contagious effect on other economies in the region. Some foreign banks operating in Argentina have suffered large losses due to the crisis but, on the whole, they have coped fairly well by means of loan loss provisions. Continuation of the Argentine crisis could mean further losses to foreign banks if the economic problems spread to other countries in the region or, indirectly, if their foreign customers' Argentine operations result in loan losses.

An easing of the situation in the international securities markets since the September terrorist attack is most visible in a narrowing of interest rate margins on corporate loans and a reduction in the volatility of financial asset prices in the key market areas. However, risks associated with world economic developments, as well as company-, sector-, and economy-specific problems, continue to cause uncertainty.

Current conditions in EU area financial markets

Overall conditions in EU area financial markets appear to be fairly stable. There are, however, some sectors that are problematic as regards financial stability. Moreover, risks related to economic recovery comprise additional sources of uncertainty in European financial markets.

In Europe the banking sector is still the virtual core of the financial system. Therefore the sector's structure and ability to withstand disturbances is vital to the maintenance of financial stability. European banks increasingly operate in cross-border interbank markets, where claims are often unsecured and larger than average for domestic transactions. The likelihood that disturbances in individual sectors of the financial system will spread throughout the entire EU area is increased by just such interbank linkages, and the contagion risk is exacerbated by the high degrees of centralisation and tiered structure of the EU interbank markets.

Although, on average, EU area banks are in good condition due to the outstanding results they were able to achieve before the recession, the profitability of banking sectors in certain core European countries has weakened substantially. The main reasons for this are an abrupt drop in banks' non-interest income, increased loan loss provisions, and insufficient cost cutting. The growth of EU area banks' lending slowed in 2001 compared to 2000.

There is a greater base of comparable data now available in Europe on bank customers' financial

Table. Selected Finnish deposit banks' operating profit, EUR m

	Total year			First quarter		
	2001	2000	Change, %	2002	2001	Change, %
Nordea Group, banking	**1,968**	**2 ,316**	**–15.0**	**411**	**600**	**–31.5**
Sampo Group, banking and investment services	296	430	–31.2	82	77	6.5
OKO Bank Group	504	664	–24.1	151	152	–0.7
OKO Bank Consolidated	111	167	–33.5	38	32	18.2
Finnish Savings Banks Group	103	104	–1.0	22	31	–29.0
Aktia Savings Bank plc	32	42	–24.1	7	11	–37.6
Local Cooperative Banks	36	39	–7.4	8	10	–23.8
Bank of Åland Plc (Group)	17	21	–17.1	4	4	2.3
Total excl. Nordea	**957**	**1,258**	**–24.0**	**267**	**274**	**–2.7**

Sources: Banks' financial statements and interim reports.

positions because eg companies have more actively sought credit ratings as European financial markets have become more highly integrated. The telecommunications sector, in particular, is expected to continue experiencing difficulties, despite the improved economic outlook for Europe. This may well be reflected in loan losses of banks that have been most active in financing ICT companies. Household indebtedness has increased fairly rapidly to high levels in a number of countries.

Problems experienced outside the EU area could prove highly contagious for banks within the area. Exposure to global risks is very unevenly allocated among banks. Some Spanish (and other) banks hold significant claims in Argentina, but thus far they have been able to prepare for anticipated loan losses so that the effects appear to be quite limited. Claims of EU area banks on Japan have decreased somewhat since 2000. Enlargement into eastern Europe will increase EU area banks' risks. However, these are limited for the moment due to the small size of the markets concerned.

At present, EU area securities markets are marked by caution, on the part of both investors and issuers. The first quarter of 2002 saw a decline in private issuance, particularly in corporate euro-denominated bonds, in comparison with both the previous and year-earlier quarters. Behind these changes are the problems highlighted by the failure of Enron, as well as uncertainties associated with economic recovery and the poor outlook for corporate credit ratings. Indices relating to the overall situation in the stock markets across the European Union have developed fairly steadily in the early part of this year, but there are clear differences between countries and sectors. The rise in prices that followed the temporary slump caused by the terrorist attack in the autumn has however come to a halt. Share prices in the financial sector have followed a steadier path than last year.

Outlook for the Finnish banking sector

Due to outstanding financial results in previous years, the Finnish banking sector is in fairly good condition. From the banks' viewpoint, the biggest risks concern economic developments and the ongoing intensive process of structural change.

Operating profits and profitability of Finnish banks and banking groups declined in 2001 (Table). This was caused, in general, by a reduction in non-interest income compared to the previous year. Net interest income from financial operations increased for all the banking groups. Despite an actual increase in loan losses, this had only a modest effect on profits. The results for the first quarter of 2002 were down slightly on the previous quarter. Although there was a weakening in profitability, the banks' capital position and loss reserves are still above average. Banking operations' capacity increased in 2001. At the end of 2001, the banking sector employed 28,730 (28,620 in 2000) in 1,550 bank offices (1,520 in 2000).

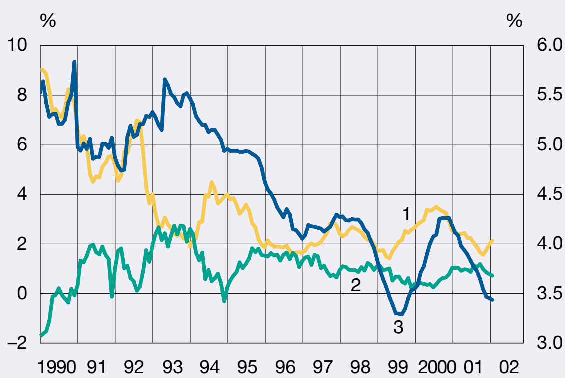
Banks' lending margins have continued to narrow since the end of 2001 (Chart 2). Supervisory authorities are well advised to monitor this development in order to ensure that banks receive adequate compensation for the risks that they bear. The overall interest margin (difference between average euro-denominated lending vs deposit rates) can be expected to widen if market interest rates rise.

Finnish household indebtedness (% of GDP), has remained steady since 1998 (Chart 3). Nonetheless, annual growth in the stock of housing loans has exceeded 10% for the last 43 months, since September 1998. To date, consumer confidence concerning own finances has remained high. This has been underpinned by low interest rates, which have kept loan service costs at manageable levels despite a rise in housing prices. There is ample reason to closely monitor household indebtedness. Should the economy's growth remain weak while inflation increases, rising interest rates will boost loan service costs and reduce households' propensity to consume.

Data on bankruptcies in the first quarter showed a year-on-year increase of 18% (Chart 4). This would suggest at least a temporary jump in loan losses. The number of bankruptcies fluctuates considerably throughout the year, so it is difficult to draw conclusions on the basis of one quarter's data. If economic growth accelerates over the year, loan losses will not pose a significant threat to banks' financial results.

The main question marks for the Finnish financial sector, looking forward, concern changes in the structure of financial institutions' income and the restructuring process. Changes brought on by technological progress, integration of international finan-

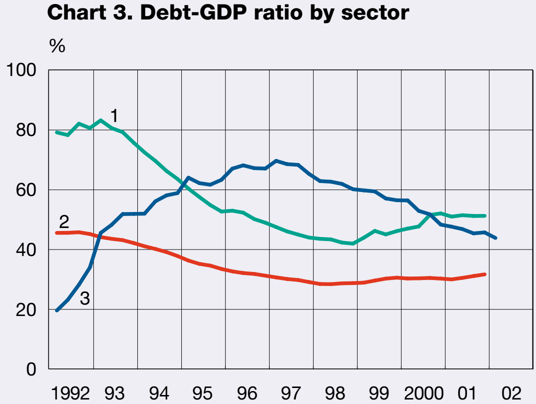
Chart 2. Deposit banks' interest rate margins



1. 12-month EURIBOR – avg deposit rate (LHS)
2. Avg lending rate – 12-month EURIBOR (LHS)
3. Avg lending rate – avg deposit rate (RHS)

Source: Bank of Finland.

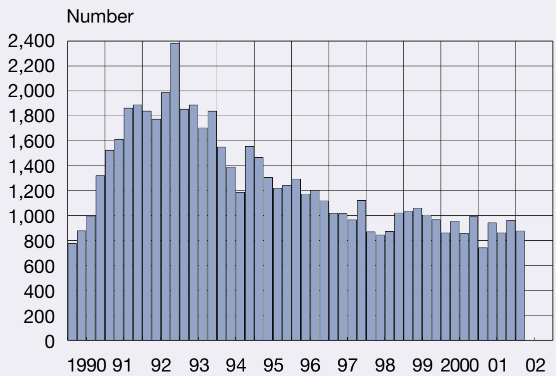
Chart 3. Debt-GDP ratio by sector



1. Corporate (excl. housing companies)
2. Household
3. Central government

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

Chart 4. Corporate bankruptcies instituted



Source: Suomen Asiakastieto Oy.

cial markets, and structural changes in savings behaviour have, in turn, caused changes in the operating environment and have forced financial intermediaries to improve their efficiency and seek new revenue sources. This is reflected in mergers undertaken by banks and insurance companies, in both the domestic and Nordic markets. From the perspective of financial system stability, it is important that institutions' internal controls stay in line with these changes. It is also essential to ensure the proper flow of information to both authorities and market participants.

Outlook for Finnish securities markets

Indices measuring price developments on the HEX Helsinki Exchanges have dropped in the early part of the year, due mainly to a downturn in share prices in the ICT sector. During the same period, volatility of market prices has fluctuated widely. The volatility has been largely the result of fluctuations in the price of Nokia shares, which dominate the Finnish stock market. Share prices gyrated more at the end of April, when ICT companies issued interim reports, than at any time since September of 2001. Risks associated with the future of the ICT sector, as perceived by the international financial markets, will probably continue to have, from time to time, an impact on price movements in the Finnish stock markets.

Despite market volatility, confidence in the operability of the stock market has remained firm and no significant systemic operational problems have appeared. Although dramatic growth in trading volume has occasionally stressed the system, HEX securities settlement has gone smoothly and the due-date settlement rate has stabilised at close to 99%. HEX[1] is nonetheless proceeding to implement a new settlement system, aimed at reducing systemic risk and developing the marketplace regarding share trading. The new system, HEXClear, is designed to operate on the basis of real-time gross settlement, enabling finalisation of an individual trade immediately upon fulfilment of execution requirements. The system is also capable of clearing several trades on the same run, thus optimising the number of trades executed and reducing the amount of committed funds. The ensuing book-entry and funds transfers are effected in accord with the real-time delivery versus payment (DVP) principle. It is intended that all payments will be made in central bank funds. HEXClear is slated for introduction in phases in the early part of 2003 and to be extended later to cover all equity and debt book-entry securities.

Globalisation of the securities markets has continued during the spring, but there are still a number of possible routes that market infrastructure integration could take. The most significant incidents of spring 2002 have been the transfer of exclusive ownership of Clearstream International to Deutsche Börse, as well as agreements by the Portuguese stock market

[1] HEX Group includes the parent company, HEX Plc, and its subsidiaries.

and London International Financial and Options Exchange (LIFFE) to participate in the Euronext stock exchange group. From the Finnish perspective, the most significant structural developments have been those in the Baltic stock markets. In March, the HEX Group announced that it was entering into strategic cooperation with the Riga Stock Exchange and Latvian Central Depository. HEX has already invested in its Baltic operations by purchasing a majority stake in the Tallinn Stock Exchange.

One of the key issues concerning integration of European securities markets is the need to offer so-called central counterparty (CCP) services to trading parties. In this setup the CCP, ie stock exchange or clearing house, assumes a position between the original parties to a trade – buyer vis-à-vis seller and seller vis-à-vis buyer – and by agreeing to bear the counterparty risk guarantees settlement according to an agreed timetable. Having a CCP does not necessarily remove all the liquidity risk associated with trading, because also CCP-guaranteed transactions may be subject to brief delays. On the international markets, trading partners are less familiar with each other than is the case on domestic markets. Thus it has become clear that CCPs are needed because they know their members and they specialise in risk management. A CCP may be able to assist remote members' solutions regarding ownership transfers connected with trades and reduce counterparty risks, but at the same time the CCP is subjected to large and systemically significant exposures. CCPs may in fact be crucial for systemic risks, particularly in their relay or merging processes. It is for these reasons that authorities feel a particular need to keep tabs on the various types of cross-border CCP services available. Discussions on the organisation of CCP services have been a regular feature of the Nordic cooperative forum, in which the HEX Group has been a participant, albeit no final solutions have been reached.

The bond market infrastructure has also been extensively revamped in recent years, which has generally meant a shift from telephone- to network-based trading. In April inter-dealer trading in Finland's primary dealer system for benchmark government bonds was transferred to the MTS Finland electronic trading system, enabling it to take advantage of the technology used in the Belgian government bond market. The trading system is available also for repurchase and reverse repurchase (repo) operations.

Payment system stability in Finland

The European System of Central Banks (ESCB) is presently considering further development of the TARGET (Trans-European Real-time Automated Gross settlement Express Transfer) system, which it maintains. The future structure of TARGET will be central to the system's risk profile and requisite contingency plans. Protection of the monetary policy clearing mechanism and ensuring the smooth functioning of payment systems continues to be a prime task of the ESCB.

According to statistics from 2002, the TARGET system has functioned well, with relatively few disturbances. The other important EU area large-value payment system, Euro1, which is maintained by the Euro Banking Association (EBA), has functioned smoothly. Reliable and effective payment system infrastructures form the basis for development of a single market for the whole EU area.

Viewed from a global perspective, the Continuous Linked Settlement (CLS) Bank is closely involved in the promotion of smooth and stable payment systems. Introduction of the CLS Bank means a reduction in risks associated with FX settlement. Admittedly, the actual inauguration of the CLS Bank has had to be postponed several times and the final date has not yet been set. At present, it looks as if the CLS Bank will commence operations in early autumn of this year. The CLS Bank also entails new challenges for TARGET, as settlement of CLS Bank's time-critical euro-denominated FX transactions will take place at the start of the TARGET day.

The operational reliability of Finnish payment systems has been outstanding, and the risk management measures applied have sufficed. The operating principles of both the Finnish large-value online netting system for express transfers and cheques (POPS) and the intrabank retail payment system (PMJ) strictly limit counterparty risks. Generally speaking, Finnish payment systems are marked by a high degree of operative stability.

In the aftermath of the September terrorist attack, discussions in a number of fora have strongly emphasised the need for functional and, above all, field-tested contingency plans. An additional viewpoint in these discussions has highlighted the crucial role of high-level expertise among market participants. It is essential that access to the required experts and reliable contact channels be ensured under all conditions.

Financial stability and development of essential regulation and supervision

Continuous change in financial market structure, technology and instruments, as well as the hazards caused by external shocks to the financial markets, require continuous updating of regulation and supervision. International cooperation has become an increasingly vital means of meeting these challenges.

International review of the capital adequacy requirements of banks and investment firms is central to the improvement of the regulatory-supervisory environment. The objective is for the Basel Committee and the European Commission's proposals to enter into force at the end of 2006, following consultation rounds. The new, more detailed, capital adequacy regulations extensively affect banks' risk positions, availability of financing and financial condition. In order to evaluate the effects, the Basel Committee on Banking Supervision will make a detailed assessment of banks' trial calculations in autumn 2002.

At the European Union level, regulation of the financial markets has been driven, to a great extent, by the need to finalise the financial services internal markets programme. In this task the Financial Services Action Plan (FSAP) recommendations approved in 1999 by the Commission play a key role. The intention is to implement the Action Plan by 2005.

In order to improve the comparability of international companies' financial information, the EU has prepared a regulation according to which a company listed or quoted on a regulated market must prepare its consolidated financial statements in accord with International Accounting Standards (IAS), starting no later than 2005. The accounting regulations would apply to companies in the financial sector. The European Parliament accepted a statement on the proposed regulations in March; rapid approval is a matter of high priority.

A proposed EU Directive on prudential rules for financial conglomerates formed via bank-insurance company mergers has advanced in the European Parliament and the European Council. The Directive defines both supervision of financial conglomerates as well as cooperation and information exchange between supervisory authorities. One of the purposes of the proposal is to prevent double counting of own funds and to ensure a level playing field.

In a second reading in May, the European Parliament approved the Directive on financial collateral arrangements. The aim of this Directive is to facilitate cross-border use of collateral and its realisation as well as harmonisation of EU member states' key regulations concerning the use of collateral. The Directive significantly reduces the juridical risks associated with cross-border collateral transactions. It is due to be implemented in the member states, probably by the end of 2003.

In March, the European Parliament adopted, at first reading, an opinion on a proposal for a new directive on insider dealing and market manipulation. The directive, which would replace the 1989 Directive on insider dealing and is intended to improve the securities sector's regulation on market integrity as well as promoting harmonisation of regulations concerning market abuse and insider dealing. The Directive is also intended to increase international cooperation and exchange of information between supervisory authorities.

The EU Commission began a second round of consultations in March on possible amendments to the Investment Services Directive. The need for regulation is closely tied to the securing of equal investment opportunities under different trading systems (ie regulated marketplaces such as stock exchanges, Alternative Trading Systems and internal brokerage trading systems), updating of investment protection, and provision of cross-border investment services based on licensing and supervision from the home state.

In March 2002, the Committee of European Securities Regulators (CESR) was given two remits to provide technical assistance to the EU Commission, in accord with the comitology approach, as set out in the Lamfalussy Report[2]. The mandate includes proposals on the directive on prospectuses and the directive on market abuse.

The Committee of European Securities Regulators (CESR) and the European System of Central Banks have initiated a joint effort to establish a frame-

[2] 'Final report of the committee of wise men on the regulation of the European securities markets, Brussels', Feb 2001.

work of standards and recommendations relating to European securities settlement systems, as laid down by a joint committee of the G10 countries' Committee on Payment and Settlement Systems (CPSS) and the International Organisation of Securities Commissions (IOSCO).

Finnish legislation

On the basis of a proposal made by the Ministry of Finance working group on banking services, the Government presented its proposals on amendments to the Credit Institutions Act to Parliament in March 2002. The amendments implement transposition of the Directive on electronic money into national legislation. The committee's proposals suggest that amendments extend the Act's scope to include institutions other than existing credit institutions whose activities include payments transmission and e-money issuance. To this purpose, it has been proposed that a new credit institution-type payment organisation be established, governed by regulations that differ from those for other credit institutions. According to the proposal, companies would be given the right to accept funds repayable on demand from the public (EUR 3,000 limit per customer). Deposit banks would still maintain the sole right to receive deposits covered by the Finnish deposit guarantee system. The proposed act also defines regulations on the outsourcing of services by credit institutions.

The Act on the supervision of financial and insurance conglomerates came into force at the start of February 2002. The new legislation covers conglomerates in which an insurance company is controlled by either a bank or an investment firm, or vice versa; or both an insurance company and either a bank or an investment firm are controlled by the same holding company. The new legislation will tighten supervision of banking groups' share and real estate holdings as well as foreign subsidiary acquisitions, and will extend the FSA's rights regarding supervision and receipt of information. At the same time, the Act extended to financial conglomerates the right of enterprises to submit information to each other, with the exception of certain sensitive data.

Legislation concerning the restructuring and winding up of credit institutions' operations came into force at the start of 2002. The provisions of the new legislation defining creditors' protection measures are by and large in line with the general provisions of the Companies Act, but guaranteed deposits are not subject to creditor protection measures. The legislation also covers regulations on the operations of credit institutions related to partial transfers of undertakings and voluntary renunciation of authorisation.

The most recent amendments to the Securities Markets Act entered into force at the start of 2002. These are aimed at increasing competition between securities service providers, by enabling authorised trading organisations other than the stock exchange to trade in listed shares and other equities.

In March 2001, the Ministry of Finance established a working group to consider introduction of a multi-tiered ownership structure in Finland, in parallel with the present direct ownership structure. The working group is likely to submit its report during the early summer of 2002, in which it considers the advantages and disadvantages of the multi-tiered ownership structure from the viewpoints of the various parties involved.

The working group, set up by the Ministry of Finance in May 2002, has a mandate to study regulations regarding competition between savings, investment and life insurance products. The primary aim is to ensure that current regulations do not unnecessarily distort competition. The working group's period of remit ends at the end of May 2003.

28 May 2002

■ Key words: financial system, stability, banking sector, securities markets, payment and settlement systems

Items

Supplementary budget

Parliament approved the first supplementary budget for 2002 on 19 June 2002. The estimate of total revenue was increased by EUR 565 million. Estimated revenue from tax at source on interest income was revised upward by EUR 69 million, from dividends and public corporation profits by EUR 273 million, and from other sources by EUR 224 million. Central government expenditure was increased by EUR 245 million. The rest of the total estimated revenue increase – EUR 320 million – was allocated to amortisation of central government debt, in the net amount of EUR 163 million.

Commemorative coin for Elias Lönnrot and folk poetry

The Ministry of Finance has decided on the striking of a commemorative coin to celebrate the 200th anniversary of Elias Lönnrot, a collector of Finnish folk poetry. The nominal value of the coin is EUR 10 and it is minted in silver alloy. The coin weighs 22 grams and measures 38.6 mm in diameter. The design of the coin is by the sculptor Pertti Mäkinen, whose last initial is included in the design, as well as that of the Managing Director of Mint of Finland, Mr Raimo Makkonen.The obverse features the embossed text, *KANSANRUNOUS*, in curvature form, and the embossed text, *ELIAS LÖNNROT,* in the lower part of the coin, along with his years of birth and death (1802–1884). A quill is embossed across the obverse. The reverse features the embossed text, *SUOMI,* in curvature form, and the striking year, 2002. On the right-hand side there is the denomination,10, and the embossed text, *EURO*. The embossed text, *FINLAND*, in curvature form, is also found on the right-hand side. A woven ribbon featuring the 12 stars of the European Union weaves its way across the reverse. A total of 80,000 coins were struck, of which 40,000 were BU versions and 40,000 proof quality, ie hand-struck coins with gloss finished background and matt finished motif. The price of the BU version is EUR 29 and the proof version is priced at EUR 54.

Publication of the Bank of Finland

The Bank of Finland Annual Report 2001 has been published. The Report contains sections on monetary policy, economic developments and implementation of monetary policy in the euro area, economic developments in Finland and other central bank activities in 2001, as well as the Bank of Finland´s financial statements and accompanying notes. The statistical appendix contains various data on the Eurosystem and the Bank of Finland. Vammala 2002. 136 pp. ISSN 1239-9345 (print), ISSN 1456-579X (online).

Eurosystem monetary policy instruments

15 May 2002

Key interest rates

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

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-

[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.

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 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).

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Financial institutions and the allocation of talent
Vesa Kanniainen – Mikko Leppämäki
5/2002

- Key words: allocation of talent, asymmetric information, financial institutions, venture capital, institutional equilibrium

The paper shows that uninformed finance gives rise to excessive entry, both in human-capital-intensive and in conventional industries when the financial institutions cannot identify the entrepreneurial talent. Introduction of informed capital (eg venture capital finance) with superior screening ability results in an institutional equilibrium with efficiency gains in human-capital industries. Contrary to received wisdom, the institutional equilibrium with informed capital is characterised by more limited entry to an industry, which requires highly talented human capital. Unexpectedly, the total welfare effect is ambiguous, as the allocation of non-informed capital is now less efficient in the conventional industry. The institutional equilibrium is shaped by investors' risk preferences, costs of establishing uninformed and informed capital, and the initial distribution ot talent in the economy.

Cyclical stabilisation under the Stability and Growth Pact: How effective are automatic stabilisers?
Anne Brunila – Marco Buti – Jan in't Veld
6/2002

- Key words: cyclical stabilisation, automatic stabilisers, Stability and Growth Pact

It is widely recognised that fiscal policy will have greater responsibilities for cyclical stabilisation in the EMU, given the loss of the monetary instrument at national level. At the same time, the EMU's budgetary framework emphasises the need to rely on automatic fiscal stabilisers, rather than active policies, in cushioning the business cycle. We show that automatic stabilisers are relatively powerful in the event of a shock to private consumption, but less so as regards shocks to private investment and exports. In respect of supply side shocks, automatic stabilisers are largely ineffective, which may in fact be a good thing to the extent that supply-side disturbances call for structural adjustment rather than cyclical stabilisation. Looking ahead, one of the challenges facing policy-makers will be how to design tax and welfare reforms which, while improving incentives and market functioning, do not stifle – and in fact could strengthen – the impact of automatic stabilisers.

Fiscal policy: Coordination, discipline and stabilisation
Anne Brunila
7/2002

- Key words: fiscal policy coordination, expenditure rules, Stability and Growth Pact

The framework for fiscal policy coordination in EMU has been in effect for three years. The experience gained shows that the rule-based approach provides in principle a feasible solution for policy coordination among a large number of heterogeneous countries whose joint interest is to safeguard the credibility of the common monetary policy and smooth functioning of the EMU. At the same time, the experience indicates that the current set of rules and procedures laid down in the Maastricht Treaty and Stability and Growth Pact (SGP) suffer from complexity, lack of transparency and asymmetric incentives. The paper discusses the rationale for fiscal policy coordination in the monetary union in general and emphasises the role of fiscal rules and multilateral surveillance in ensuring discipline and long-term sustainability of public finances. The paper also considers incentive problems arising from the asymmetric nature of the SGP and weak interaction between national policy-making and EU-level policy commitments. As a possible remedy, the paper proposes complementing the SGP with medium-term expenditure rules for central governments and balanced budget requirements for lower levels of government.

BOFIT Discussion Papers

The role of oil prices and the real exchange rate in Russia's economy
Jouko Rautava
3/2002

- Key words: Russian economy, fiscal policy, oil, real exchange rate, VAR, cointegration

Most people feel that Russia's economy and fiscal situation are still crucially tied to international oil prices and the exchange rate of the rouble, although this view has recently been challenged by some analysts. Empirical research on this topic is, however, scanty. In this paper, the impact of international oil prices and the real exchange rate on Russia's economy and fiscal policy is analysed using VAR methodology and cointegration techniques. The period covered is 1995Q1–2001Q3. The results indicate that in the long run a 10% permanent increase (decrease) in international oil prices is associated with a 2.2% rise (fall) in the level of Russian GDP and a 10% real appreciation (depreciation) of the rouble is associated with a 2.4% decline (increase) in the level of output. These long-run equilibrium relationships also have a significant impact on short-run dynamics through an error-correction mechanism. The estimation results also confirm a strong dependence of fiscal revenues on output and oil price fluctuations. Estimated parameters and diagnostic statistics do not indicate that Russia's dependence on oil and the real exchange rate has weakened in recent years.

Exchange rate regimes and nomines convergence in the CEECs
Marketta Järvinen
4/2002

- Key words: exchange rare regimes, inflation, fiscal theory of the price level, transition economies

This paper examines, in the context of future EMU membership of the Central and Eastern European countiries (CEECs), the interaction between fiscal policy and the price level in different exchange rate regimes. The theoretical framework is based on the Fiscal Theory of the Price Level (FTPL). The re sults show that a credibly fixed exchange rate is inconsistent with fiscal irresponsibility, while adopting the common currency enables the conduct of irresponsible policies, with the result that a rise in the level of debt by one member country raises the common price level of the whole union.

Are the Central and Eastern European transition countries still vulnerable to a financial crisis? Results from the signals approach
Axel Brüggemann – Thomas Linne
5/2002

- Key words: financial crises; vulnerability indicator; Central and Eastern Europe

The aim of paper is to analyse the vulnerability of the Central and Eastern European accession countries to the EU as well as that of Turkey and Russia to a financial crisis. Our methodology is an extension of the signals approach. We develop a composite indicator to measure the evolutin of of the risk potential in each country. Our findings show that crises in Central and Eastern Europe are generally caused by the same things as in other emerging markets, in particular an overvalued exchange rate. Weak exports and dwindling currency reserves have good precictive power for assessing crisis vulnerabilities.

Finland in brief

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 2000, 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 18.7% and to the rest of the world for 26.0%. 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 18.4% and the rest of the world for 24.2%.

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 50.9% of goods imports, capital goods for 24.4% and durable and non-durable consumer goods for 24.7%.

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

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

Finance and banking

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

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

Other banks (31 December 2001). Finland has three major groups of deposit banks with a total of about 1,579 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, 7 foreign banks have branches and 7 foreign banks have representative offices in Finland.

Financial markets. The total stock of domestic credit amounted to EUR 120.6 billion at end-December 2001 and was broken down by lender group as follows: deposit banks 60%; insurance companies 5%; pension insurance institutions 14%; other credit institutions 11%; central and local governments and social security funds 10%.

In the money market, the total value of instruments outstanding was about EUR 21.5 billion at end-March 2002; bank certificates of deposit accounted for 56% of the total and Treasury bills, commercial paper and local authority paper for the rest.

At end-March 2002 there were 109 companies on the main list, 30 on the investors' list and 17 on the NM list of the HEX. At end-March 2002 total market capitalisation was EUR 199.2 billion for the main list, EUR 0.53 billion for the investors' list and EUR 0.45 billion for the NM list. Domestic bonds and debentures in circulation at end-March 2002 amounted to EUR 48.1 billion; government bonds accounted for 79% of the total. Share turnover on the HEX amounted to EUR 53.0 billion at end-March 2002.

VISITING SCHOLARS PROGRAMME

BANK OF FINLAND

SUOMEN PANKKI • FINLANDS BANK

***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
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Helsinki, Finland
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Email: Kaisa-Liisa.Nordman@bof.fi

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Balance sheet of the Bank of Finland, EUR million

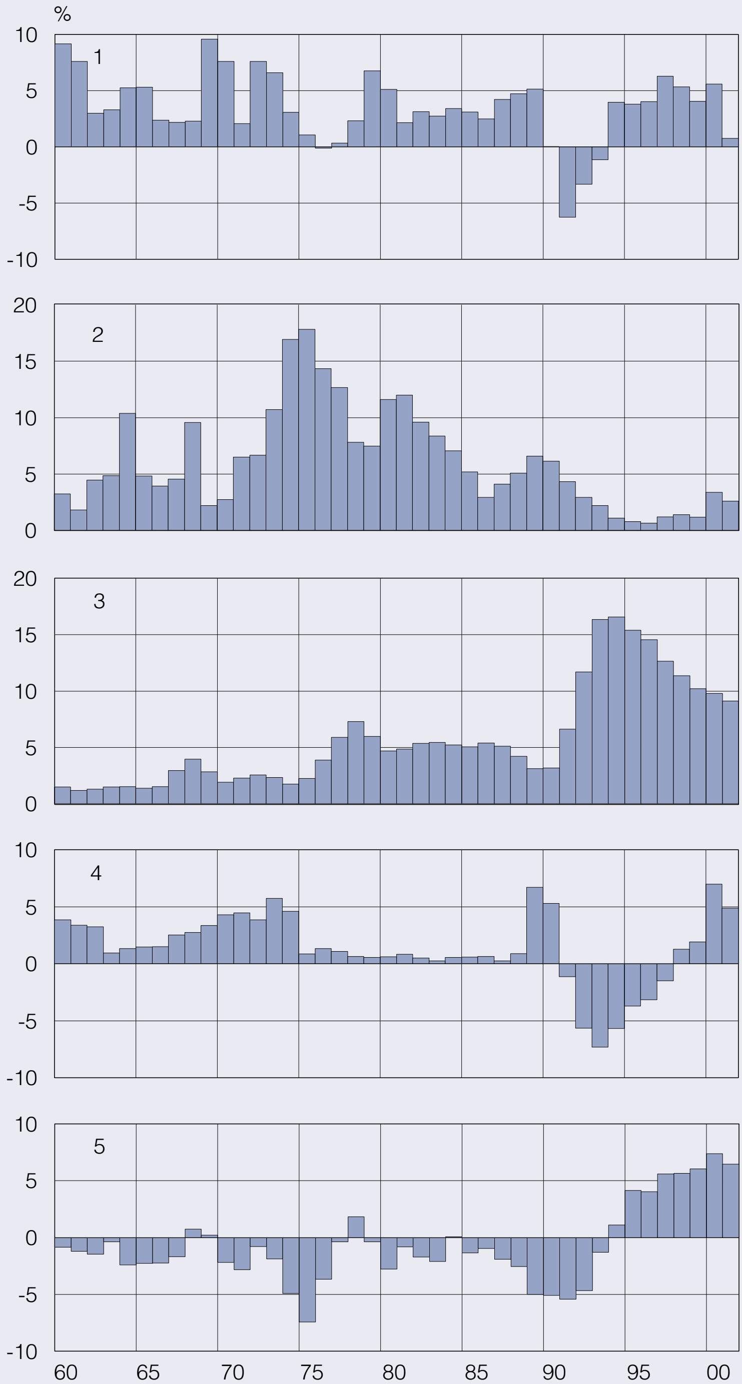
Assets		2002 22.2.	28.3.	26.4.	31.5.
1	**Gold and gold receivables**	497	548	548	548
2	**Claims on non-euro area residents denominated in foreign currency**	9 069	9 056	9 172	9 210
2.1	Receivables from the IMF	923	915	867	832
2.2	Balances with banks and security investments, external loans and other external assets	8 146	8 141	8 305	8 378
3	**Claims on euro area residents denominated in foreign currency**	781	705	725	767
4	**Claims on non-euro area residents denominated in euro**	0	0	0	0
4.1	Balances with banks, security investments and loans	0	0	0	0
4.2	Claims arising from the credit facility under the ERM II	0	–	–	–
5	**Lending to euro area credit institutions related to monetary policy operations denominated in euro**	1 235	1 253	1 176	1 591
5.1	Main refinancing operations	1 029	903	330	876
5.2	Longer-term refinancing operations	206	350	846	715
5.3	Fine-tuning reverse operations	0	–	–	–
5.4	Structural reverse operations	0	–	–	–
5.5	Marginal lending facility	0	–	–	–
5.6	Credits related to margin calls	0	–	–	–
6	**Other claims on euro area credit institutions denominated in euro**	2	2	2	2
7	**Securities of euro area residents denominated in euro**	0	–	–	–
8	**General government debt denominated in euro**	0	0	0	0
9	**Intra-Eurosystem claims**	2 383	2 803	2 803	2 997
9.1	Share in ECB capital	70	70	70	70
9.2	Claims equivalent to the transfer of foreign currency reserves	699	699	699	699
9.3	Claims related to the issuance of ECB debt certificates	0	–	–	–
9.4	Claims related to TARGET and correspondent accounts (net)	0	–	–	–
9.5	Claims related to other operational requirements within the Eurosystem	1 614	2 034	2 034	2 229
10	**Other assets**	861	930	913	890
Total assets		14 828	15 297	15 339	16 004

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

Liabilities		22.2.	28.3.	2002 26.4.	31.5.
1	**Banknotes in circulation**	3 890	4 394	4 345	4 658
2	**Liabilities to euro area credit institutions related to monetary policy operations denominated in euro**	1 419	3 687	2 708	2 805
2.1	Current accounts (covering the minimum reserve system)	1 386	3 687	2 708	2 805
2.2	Deposit facility	33	–	–	–
2.3	Fixed-term deposits	0	–	–	–
2.4	Fine-tuning reverse operations	0	–	–	–
2.5	Deposits related to margin calls	0	–	–	–
3	**Other liabilities to euro area credit insitutions denominated in euro**	0	–	–	–
4	**Liabilities to other euro area residents denominated in euro**	1	1	1	1
4.1	General government	0	–	–	–
4.2	Other liabilities	1	1	1	1
5	**Liabilities to non–euro area residents denominated in euro**	2	2	1	1
6	**Liabilities to euro area residents denominated in foreign currency**	–19	–	0	8
7	**Liabilities to non–euro area residents denominated in foreign currency**	252	173	272	332
7.1	Deposits, balances and other liabilities	252	173	272	332
7.2	Liabilities arising from the credit facility under the ERM II	0	–	–	–
8	**Counterpart of special drawing rights allocated by the IMF**	203	204	204	204
9	**Intra–Eurosystem liabilities**	3 439	1 181	2 151	2 301
9.1	Liabilities related to promissory notes backing the issuance of ECB debt certificates	0	–	–	–
9.2	Liabilities related to TARGET and correspondent accounts (net)	3 439	1 181	2 151	2 301
9.3	Liabilities related to other operational requirements within the Eurosystem	0	–	–	–
10	**Other liabilities**	69	149	150	188
11	**Revaluation account**	1 029	1 062	1 062	1 062
12	**Capital and reserves**	4 543	4 444	4 444	4 444
Total liabilities		14 828	15 297	15 339	16 004

Charts

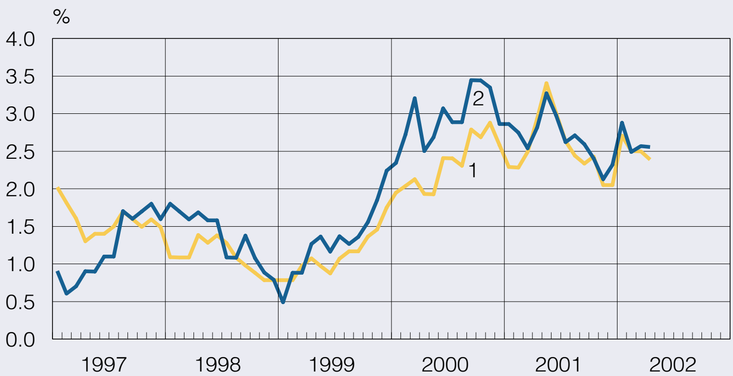
1. Finland: key economic indicators



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

Sources:
Statistics Finland and
Bank of Finland.

2. Price stability in the euro area and Finland

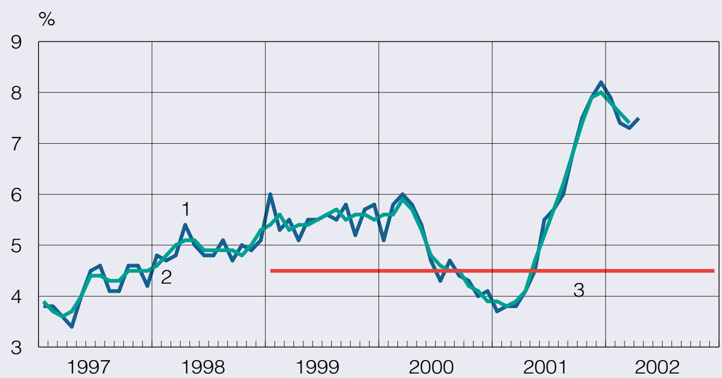


Harmonised index of consumer prices, 12-month change, %

1. Euro area
2. Finland

Sources:
Eurostat and Statistics Finland.

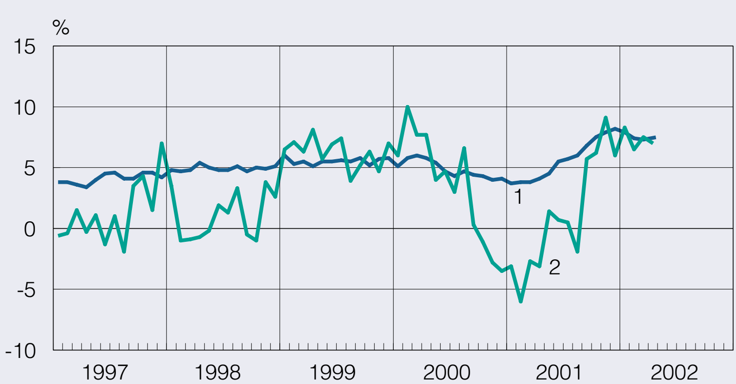
3. Monetary aggregates for the euro area



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

Source:
European Central Bank.

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

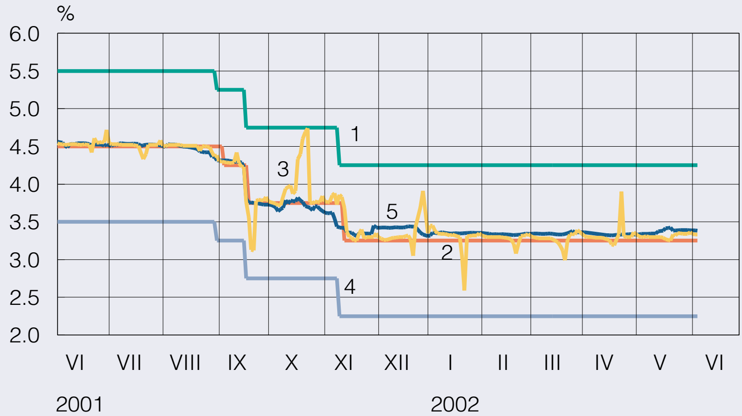


12-month percentage change

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

Sources:
European Central Bank and Bank of Finland.

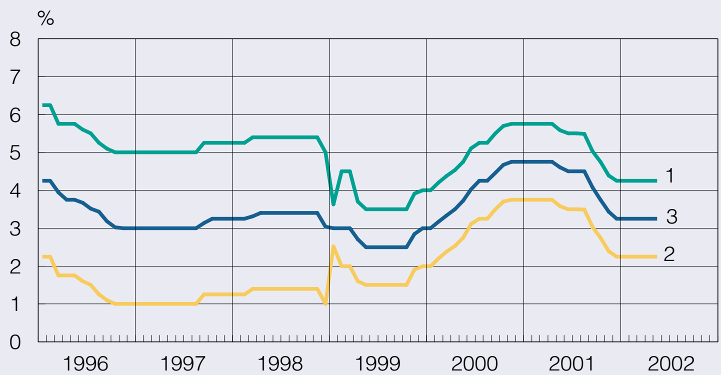
5. Eurosystem interest rates and money market rates



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

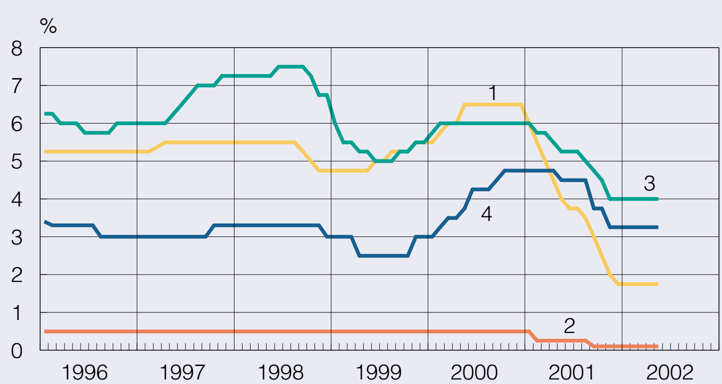


Bank of Finland interest rates until end-1998

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.

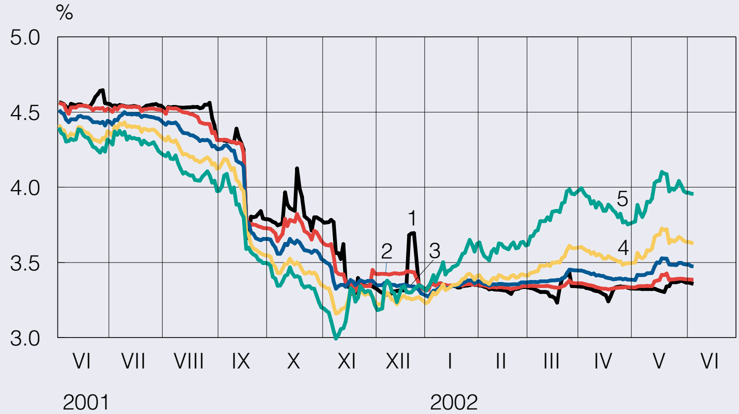
7. Official interest rates



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.

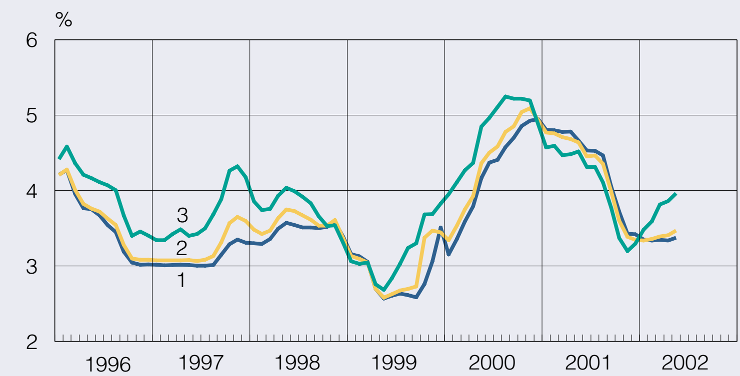
8. Euribor rates, daily values



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

Source: Reuters.

9. Euribor rates, monthly values

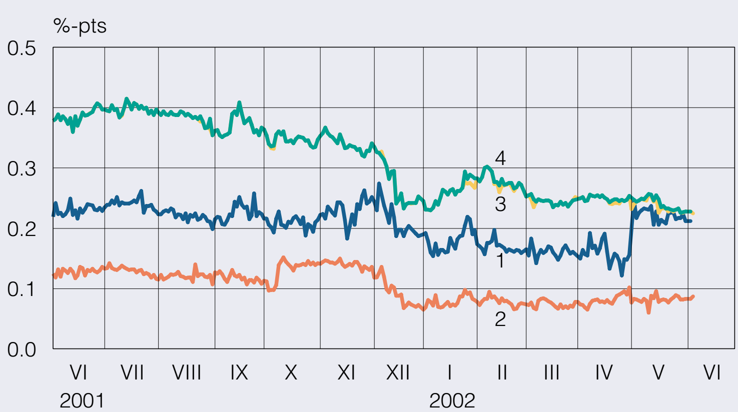


Helibor rates until end-1998

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

Source: Reuters.

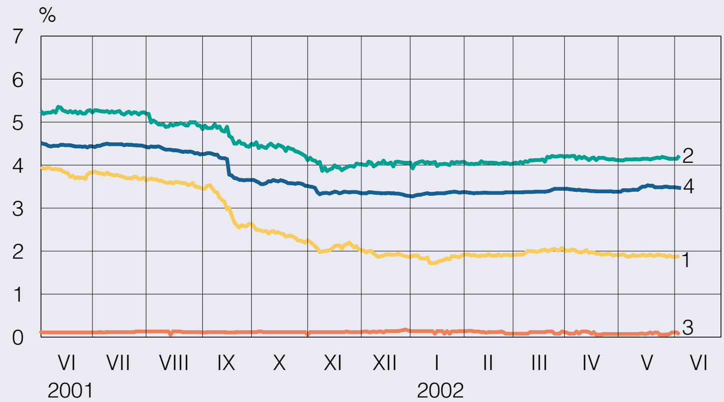
10. Differentials between ten-year yields for Germany and selected euro area countries



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

Source: Reuters.

11. International three-month interest rates, daily values

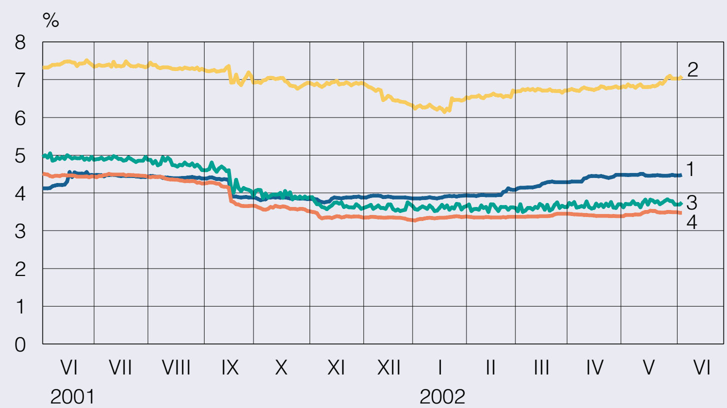


Interbank rates

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

Source: Reuters.

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

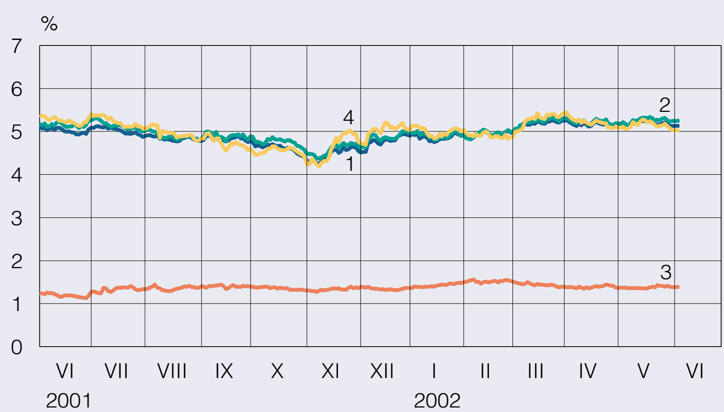


Interbank rates

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

Source: Reuters.

13. International long-term interest rates, daily values

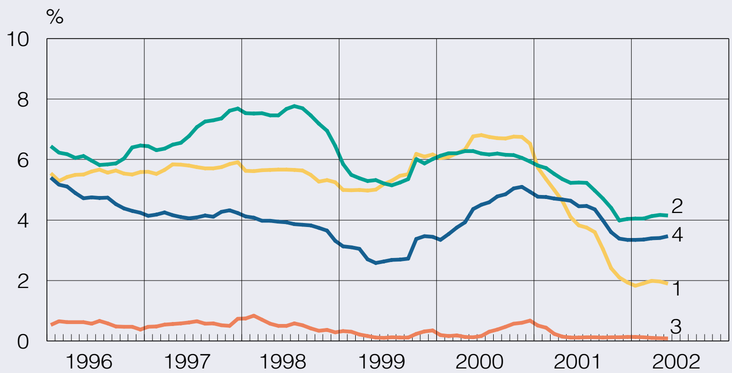


Yields on ten-year government bonds

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

Source: Reuters.

14. International three-month interest rates, monthly values

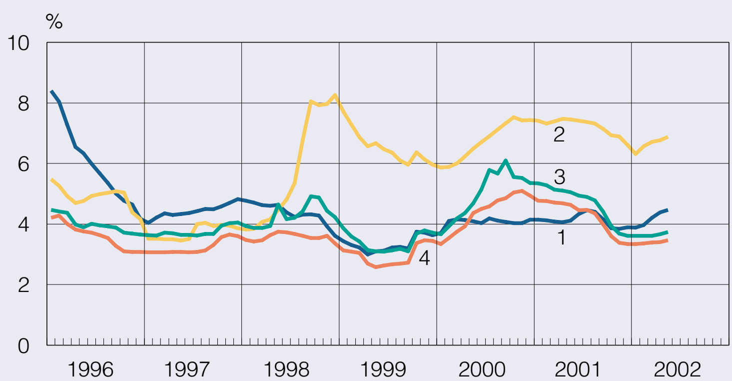


Interbank rates

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

Source: Reuters.

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

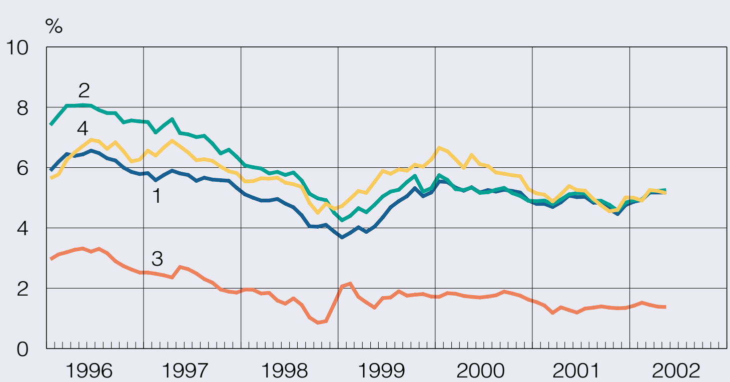


Interbank rates

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

Source: Reuters.

16. International long-term interest rates, monthly values

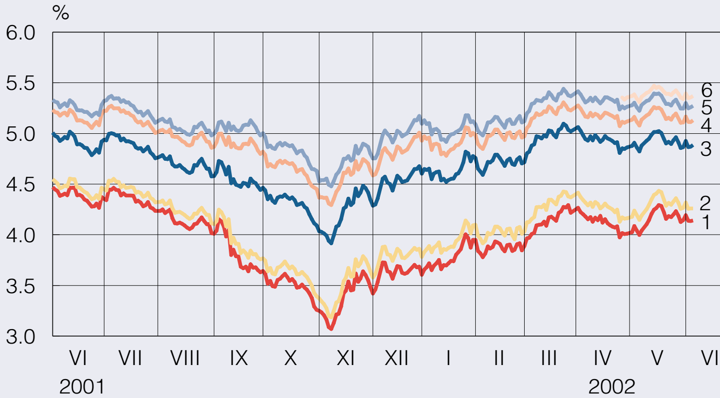


Yields on ten-year government bonds

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

Source: Reuters.

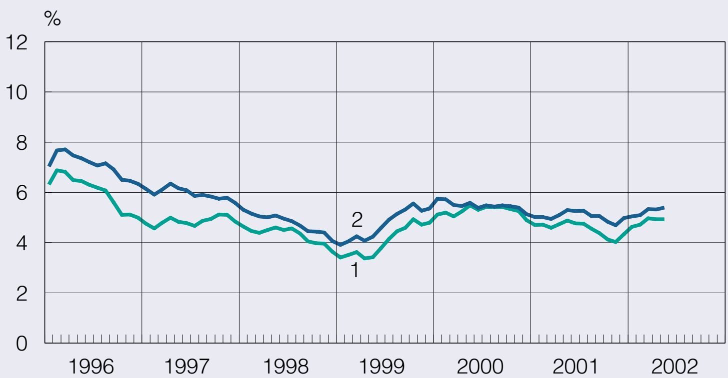
17. Yields on Finnish benchmark government bonds



1. Bond maturing on 12 November 2003, 3.75%
2. Bond maturing on 15 March 2004, 9.5%
3. Bond maturing on 4 July 2007, 5%
4. Bond maturing on 25 April 2009, 5%
5. Bond maturing on 23 February 2011, 5.75%
6. Bond maturing on 4 July 2013, 5.375%

Source: Reuters.

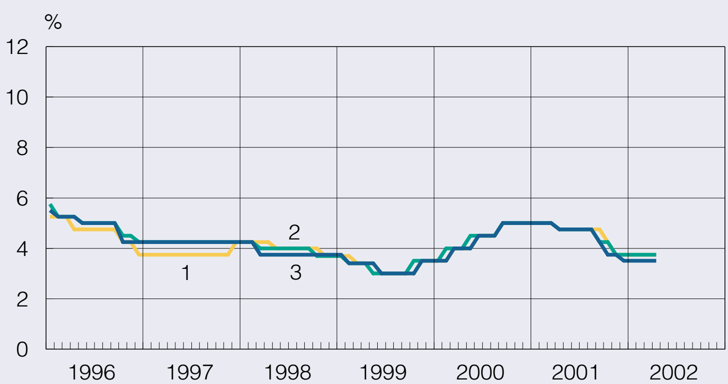
18. Yields on five and ten-year Finnish government bonds



1. 5 years
2. 10 years

Source: Reuters.

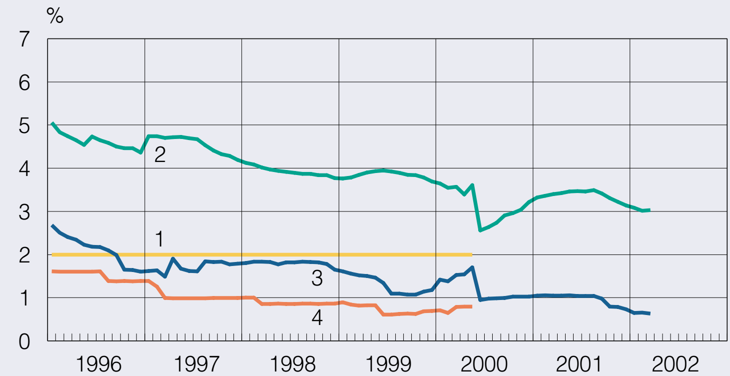
19. Bank reference rates in Finland



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

Source: Banks.

20. Bank deposit rates in Finland

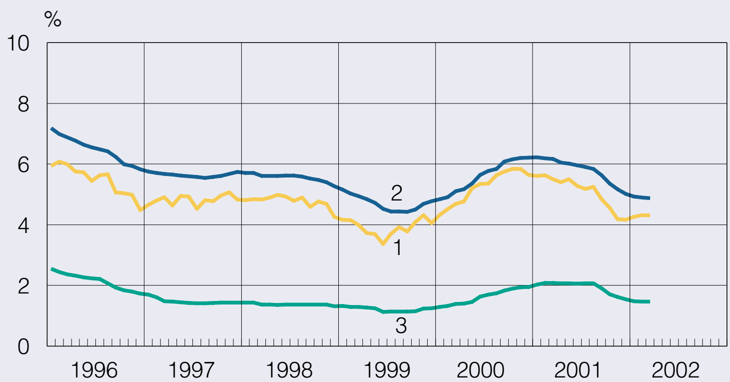


The tax treatment of deposits changed on 1 June 2000.

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.

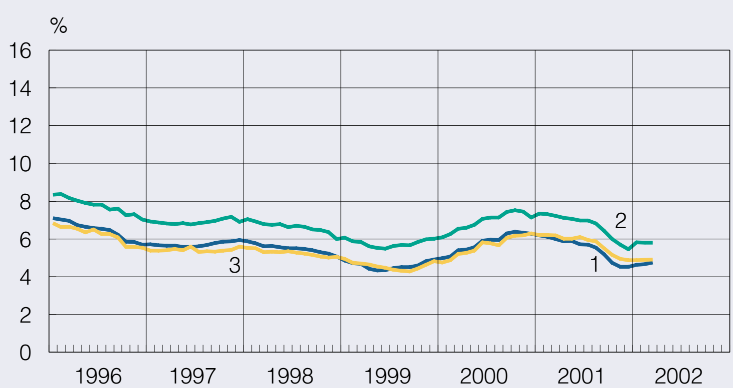
21. Bank lending and deposit rates in Finland



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

Source: Bank of Finland.

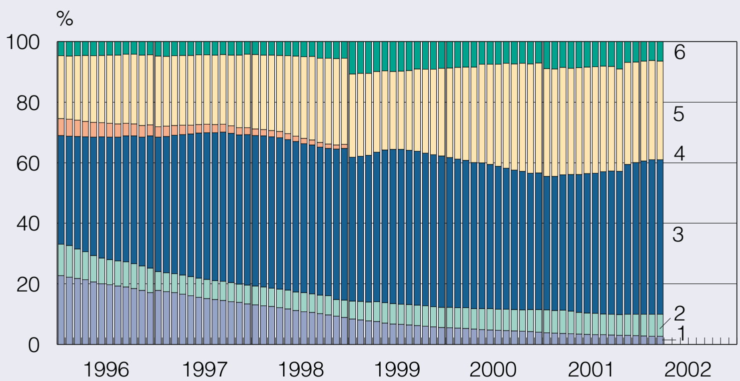
22. Interest rates charged by Finnish banks on new lending to households



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

Source: Bank of Finland.

23. Stock of bank lending in Finland

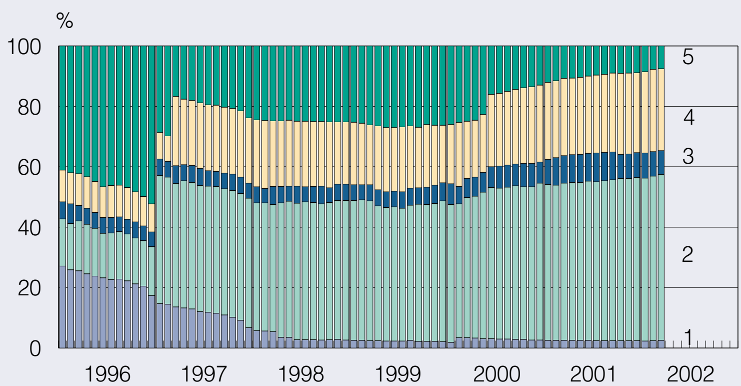


Interest rate linkages, percentages

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

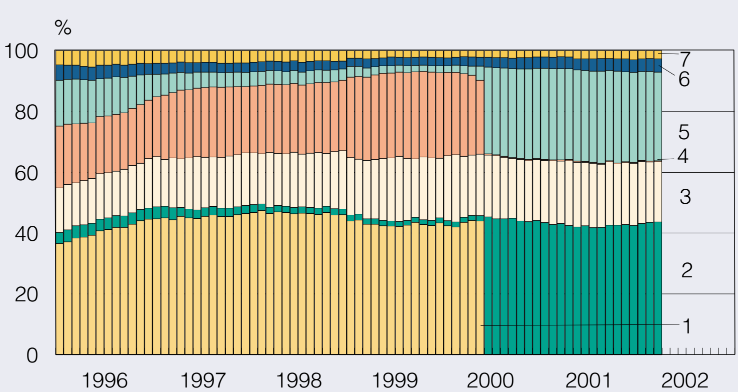


Interest rate linkages, percentages

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

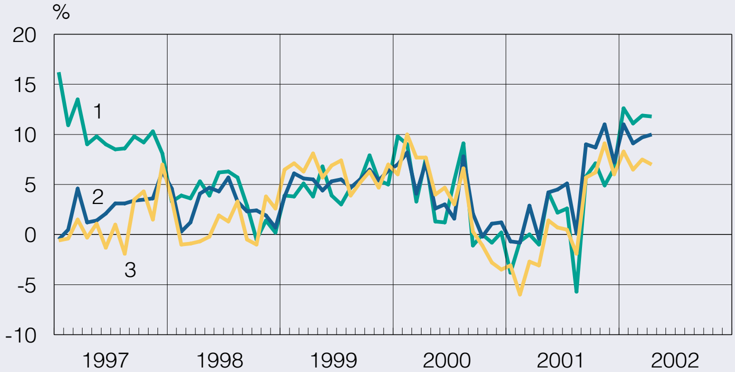


The tax treatment of deposits changed on 1 June 2000.

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

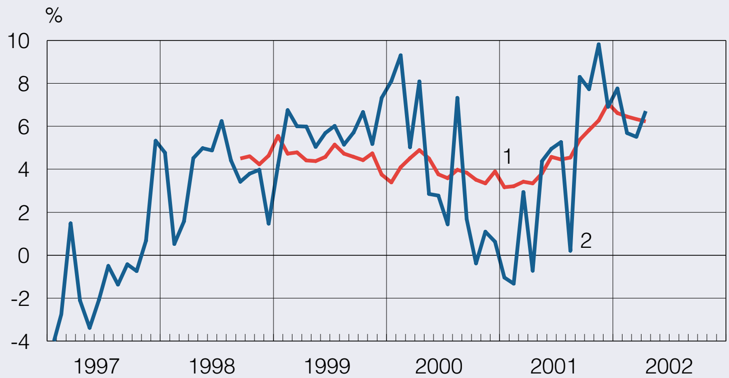


12-month percentage change

1. M1
2. M2
3. M3

Source: Bank of Finland.

27. MFI deposits, euro area and Finland

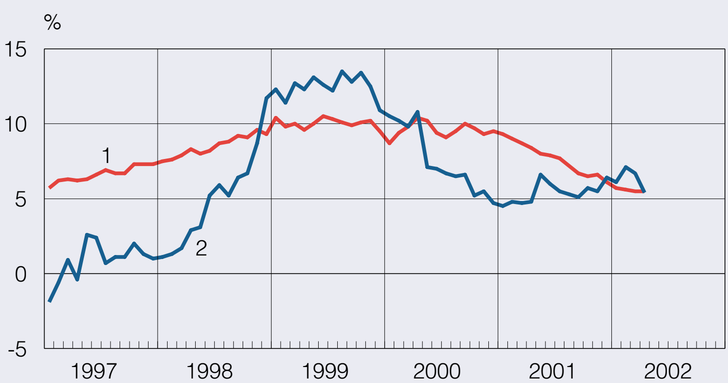


12-month percentage change

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

Sources:
European Central Bank and
Bank of Finland.

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

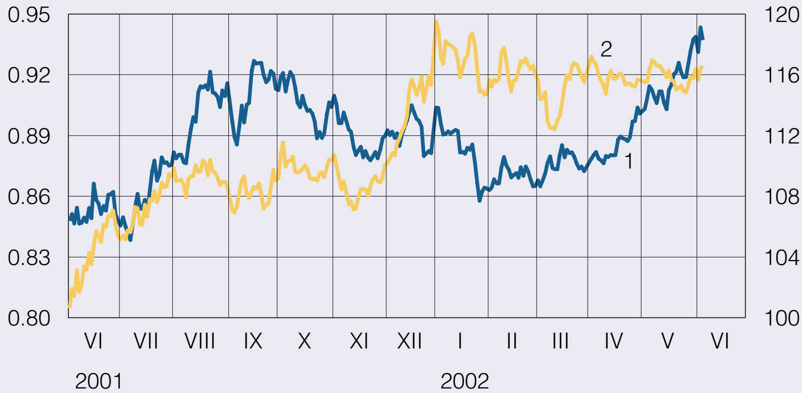


12-month percentage change

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

Sources:
European Central Bank and
Bank of Finland.

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

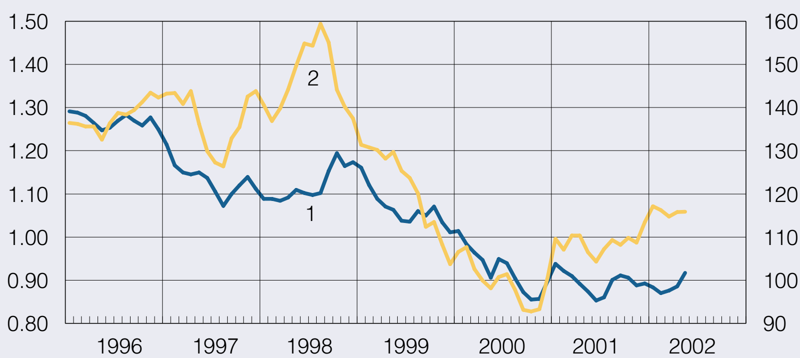


Rising curve indicates appreciation of euro

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

Sources: European Central Bank and Reuters.

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



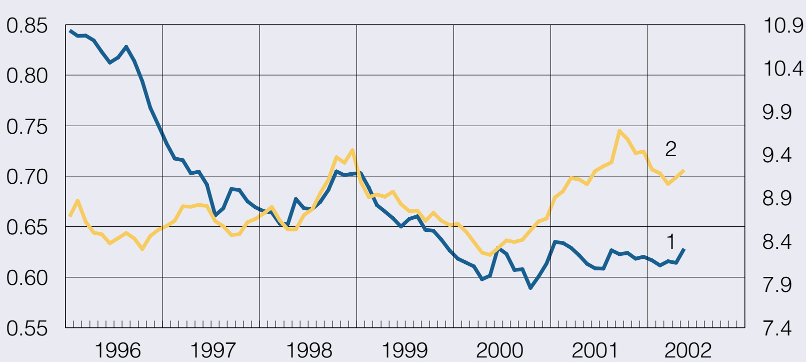
(ecu exchange rate until end-1998)

Rising curve indicates appreciation of euro

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

Sources: European Central Bank and Reuters.

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



(ecu exchange rate until end-1998)

Rising curve indicates appreciation of euro

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

Sources: European Central Bank and Reuters.

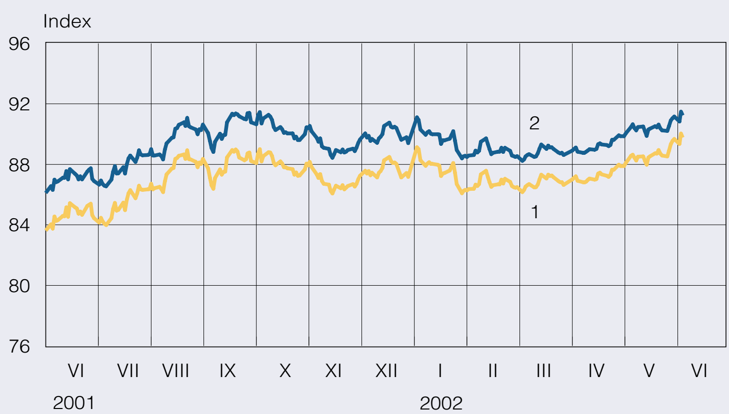
32. Euro exchange rates against the Scandinavian currencies

Rising curve indicates appreciation of euro

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

Sources: European Central Bank and Reuters.

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

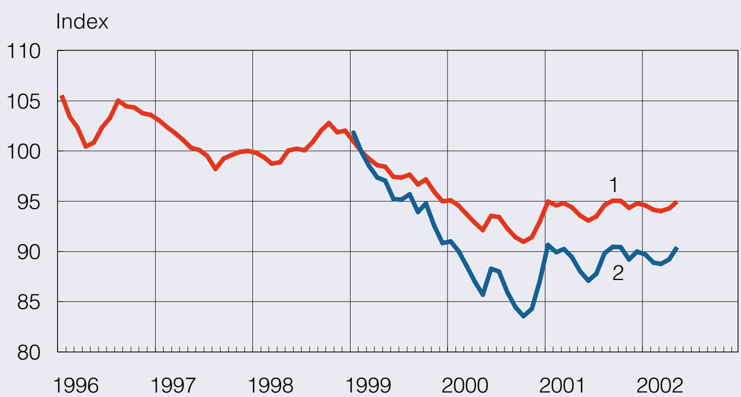


1999 Q1 = 100
An upward movement of the index represents an appreciation of the euro / a weakening in Finnish competitiveness

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

Sources:
European Central Bank and Bank of Finland.

34. Competitiveness indicators for Finland

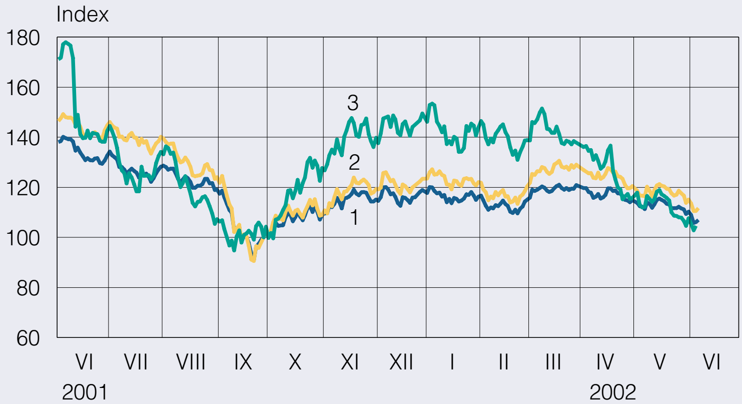


1999 Q1 = 100
An upward movement of the index represents a weakening in Finnish competitiveness

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

Source: Bank of Finland.

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

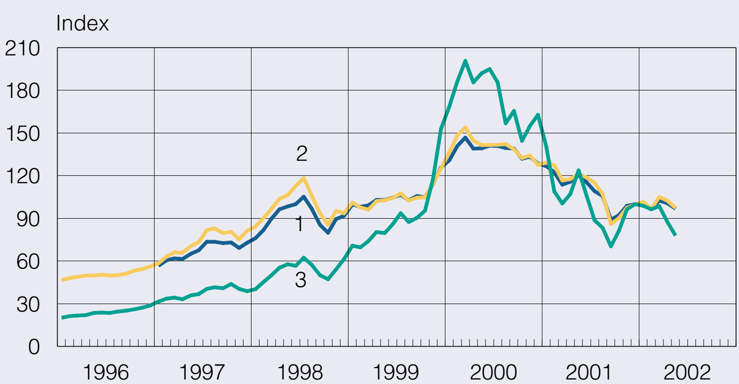


27 September 2001 = 100

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

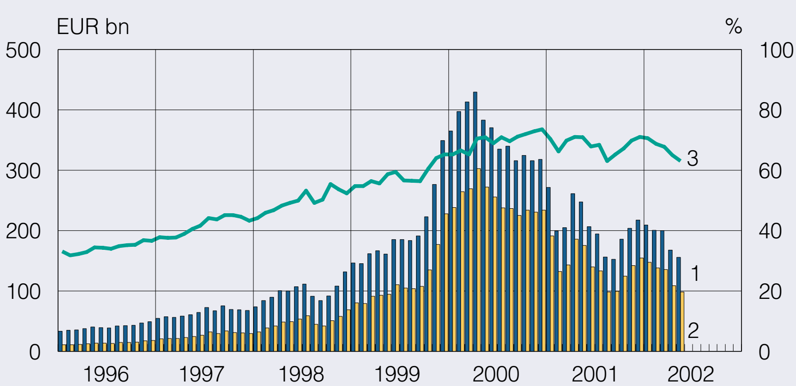


31 December 2001 = 100

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.

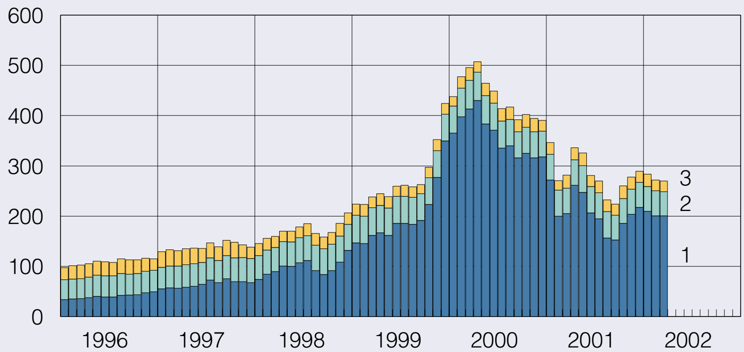
37. Listed shares in Finland: total market capitalization and non-residents' holdings



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

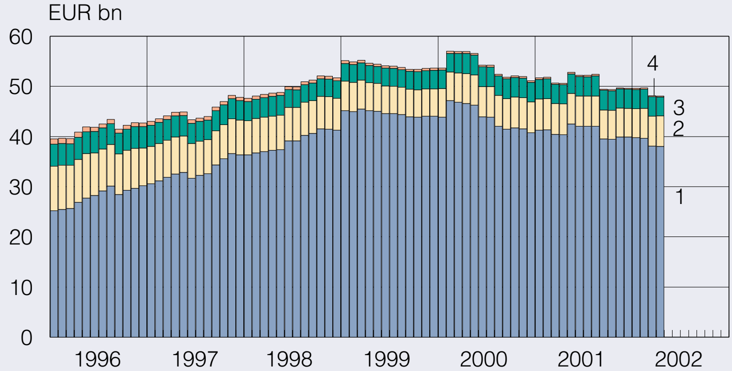


End-month stock

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

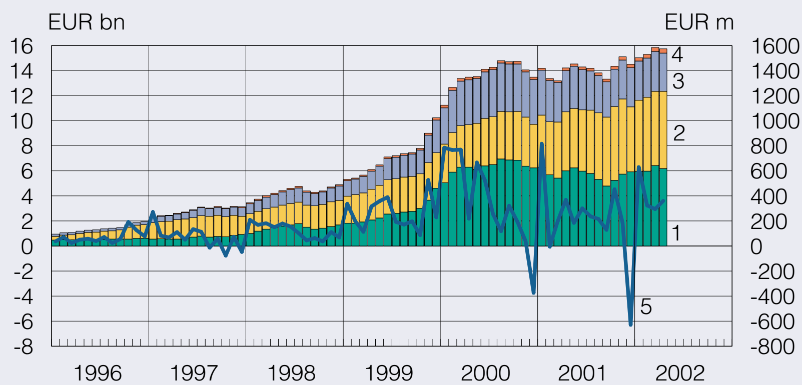


End-month stock

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

Source: Statistics Finland.

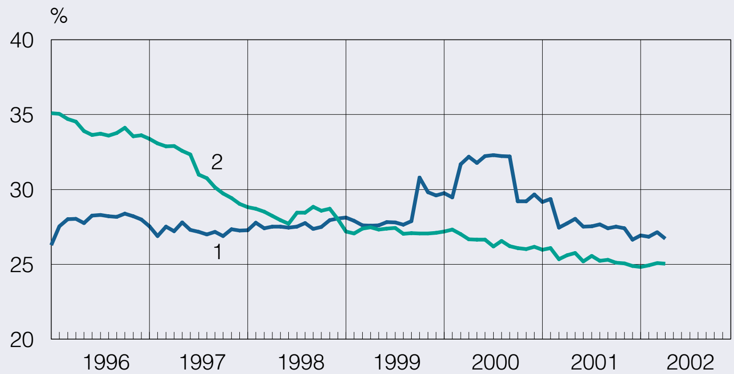
40. Mutual funds registered in Finland



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

Source: HEX Helsinki Exchanges.

41. Central government revenue and expenditure in Finland

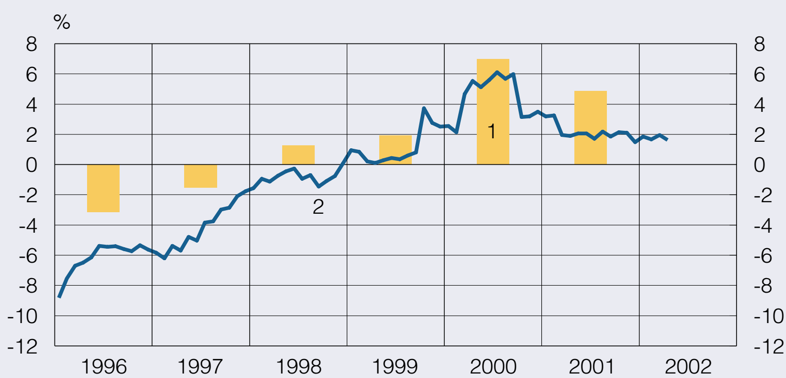


Excluding financial transactions
12-month moving totals, % of GDP

1. Revenue
2. Expenditure

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

42. Public sector balances in Finland

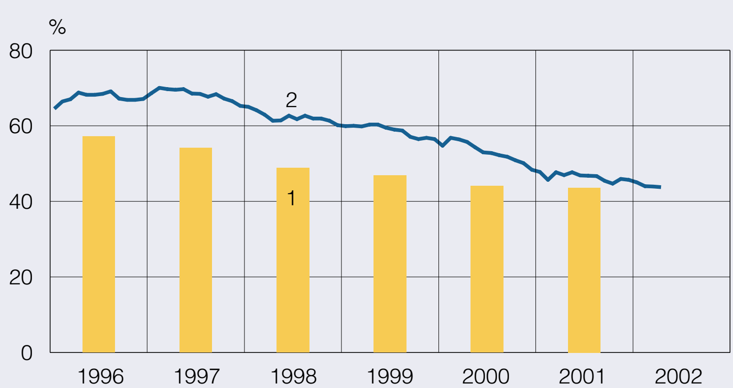


% of GDP

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

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

43. Public debt in Finland

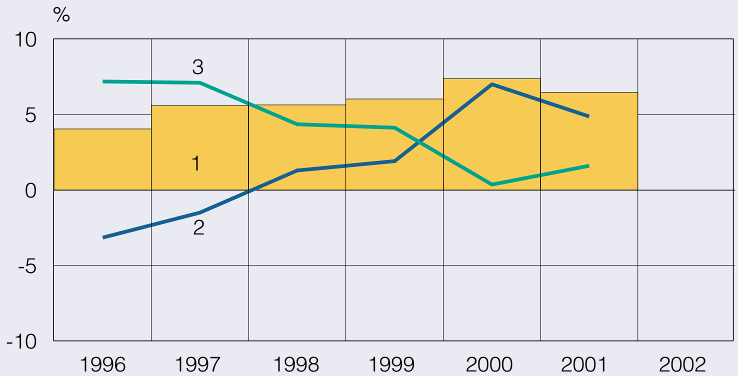


% of GDP

1. General government debt
2. Central government debt

Sources: Statistics Finland and State Treasury.

44. Net lending in Finland by sector

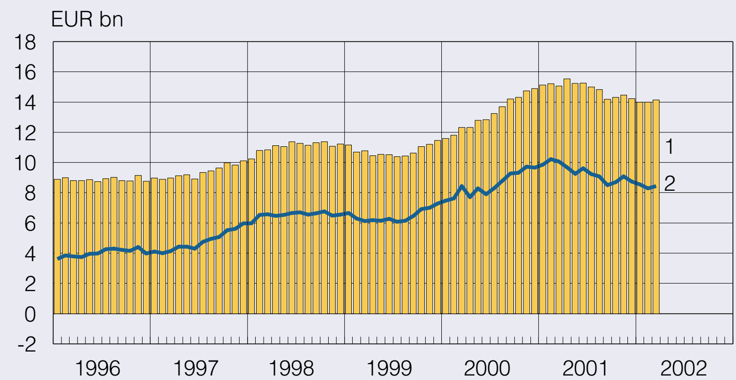


Main sectoral financial balances, % of GDP

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

Sources: Bank of Finland and Statistics Finland.

45. Finland: goods account and current account

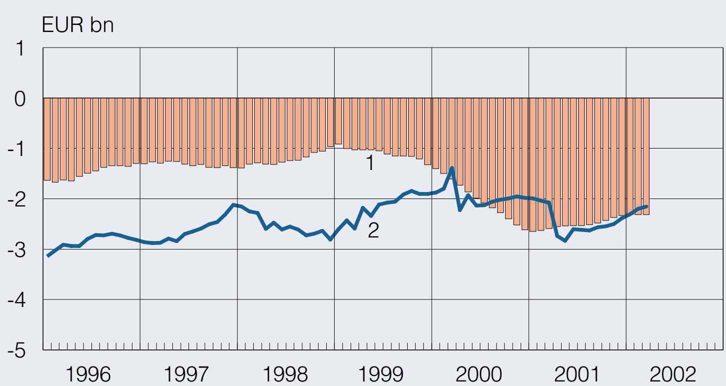


12-month moving totals

1. Goods account, fob
2. Current account

Source: Bank of Finland.

46. Finland: services account and income account

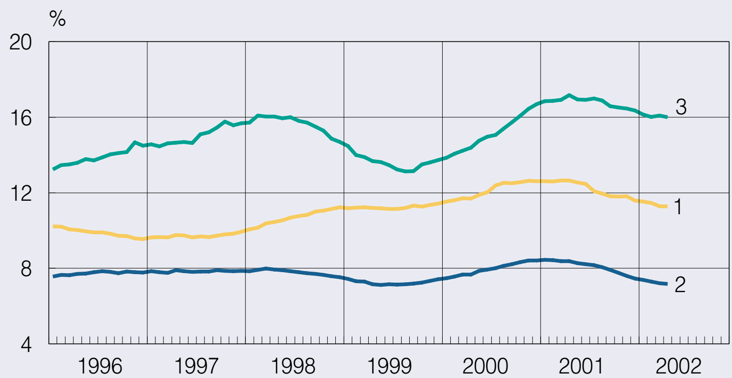


12-month moving totals

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

Source: Bank of Finland.

47. Regional distribution of Finnish exports

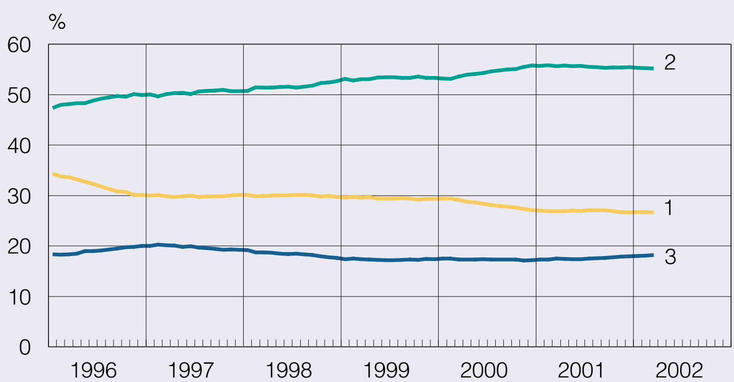


12-month moving totals, % of GDP

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

Sources:
National Board of Customs and Statistics Finland.

48. Finnish exports by industry

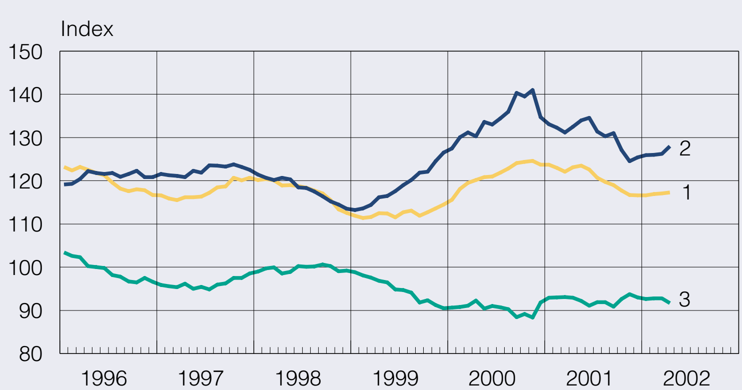


12-month moving totals, percentage of total exports

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

Source:
National Board of Customs.

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

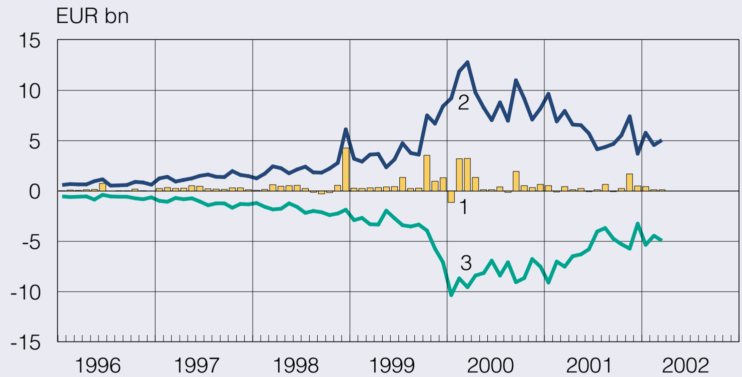


1990 = 100

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

Source: Statistics Finland.

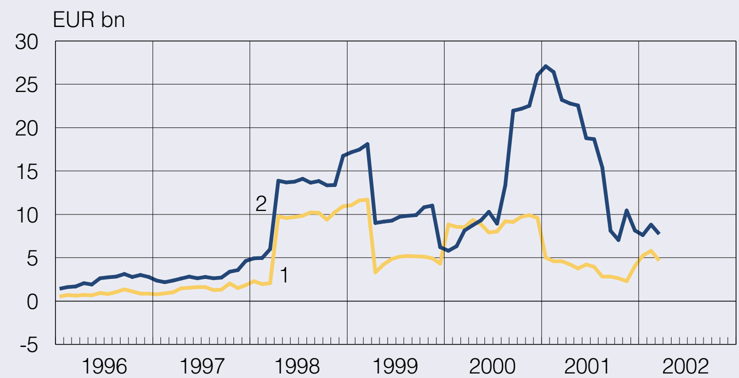
50. Non-residents' portfolio investment in Finnish shares



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

Source: Bank of Finland.

51. Finland: direct investment

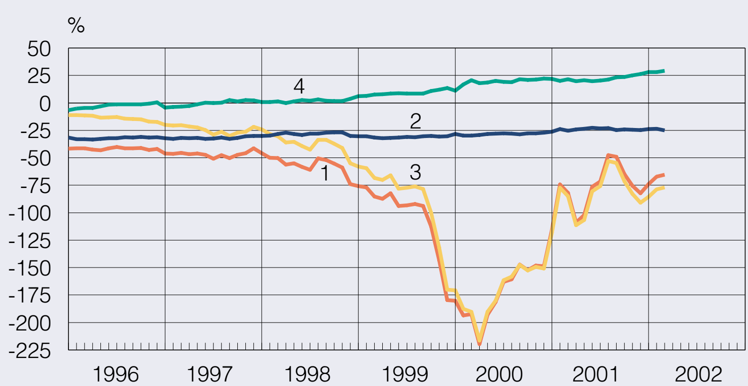


12-month moving totals

1. In Finland
2. Abroad

Source: Bank of Finland.

52. Finland's net international investment position

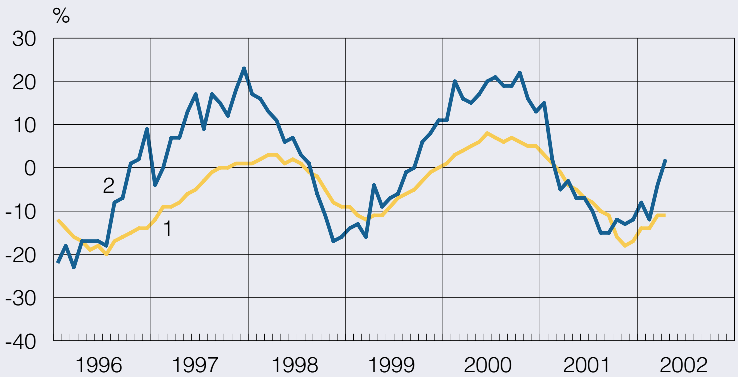


% of GDP

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.

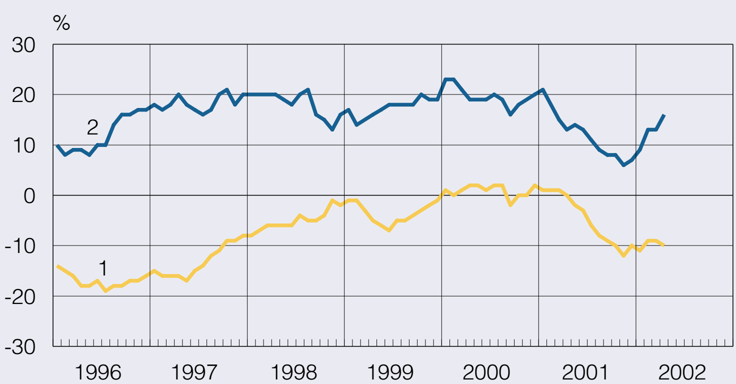
53. Industrial confidence indicator in the euro area and Finland



1. Euro area
2. Finland

Source: European Commission.

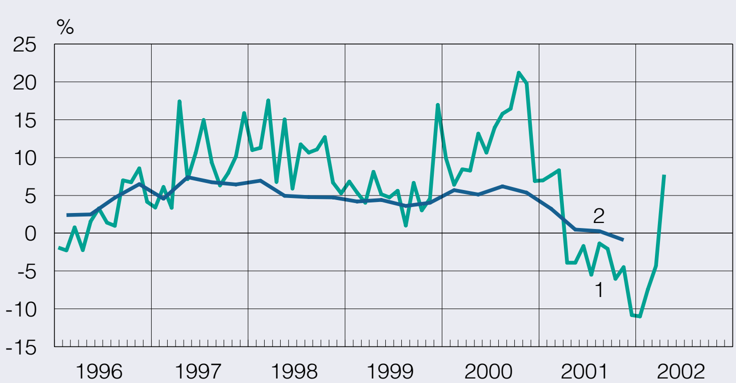
54. Consumer confidence indicator in the euro area and Finland



1. Euro area
2. Finland

Source: European Commission.

55. Finland: GDP and industrial production

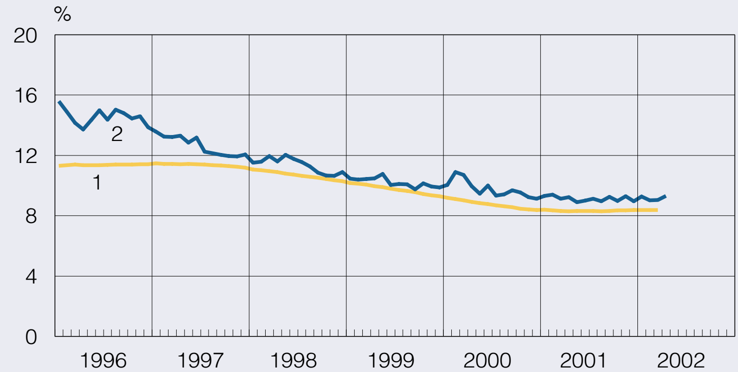


Percentage change from previous year

1. Industrial production
2. Gross domestic product

Source: Statistics Finland.

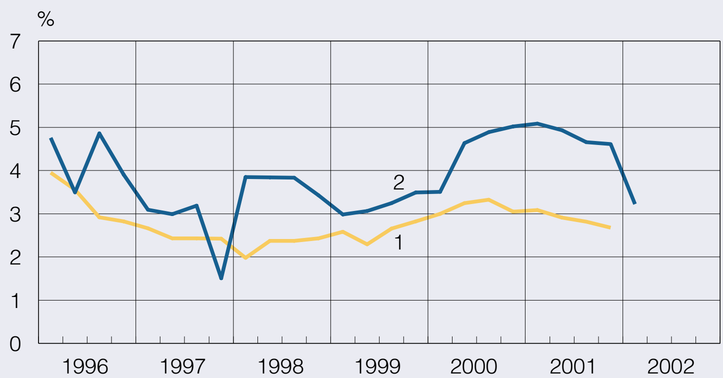
56. Unemployment rate in the euro area and Finland



1. Euro area
2. Finland

Sources: Eurostat, Statistics Finland and Bank of Finland.

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

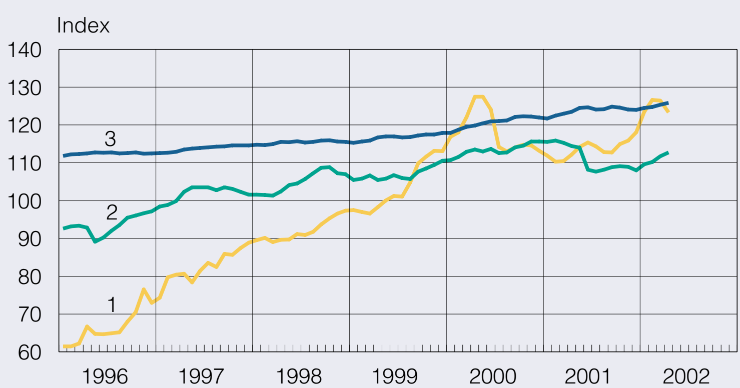


Percentage change from previous year

1. Euro area
2. Finland

Sources: Eurostat and Statistics Finland.

58. Selected asset prices in Finland



January 1990 = 100

1. Housing prices (old two-room flats; debt-free price per m^2)
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

20 May 2002

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Jyrki Ahvonen
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* Adviser to the Board

Branch offices: Kuopio, Oulu, Tampere and Turku.

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

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