



BANK OF FINLAND

BULLETIN

2003 • Vol. 77 No. 4



- Monetary policy and economic outlook
 - Financial stability
 - Challenges for Finnish economic policy in an unstable international environment
 - Impact of the new capital adequacy framework for banks on the stability and efficiency of the financial system
-

BANK OF FINLAND BULLETIN

Vol. 77 No. 4/2003

The Bank of Finland Bulletin is a quarterly publication.

Publisher

Suomen Pankki • Bank of Finland

Editorial Board

Antti Juusela, Chairman

Heikki Koskenkylä

Pentti Pikkarainen

Antti Suvanto

Juha Tarkka

Editor-in-Chief

Matti Vanhala

Edited

by the Bank of Finland's

Publication and Language Services

Mailing address:

PO Box 160,

FIN-00101 HELSINKI

Phone:

National (09) 1831

International + 358 9 1831

Email:

publications@bof.fi

Telex: 121224 SPFBFI

Fax: + 358 9 174872

Cable: SUOMENPANKKI

Printed by Libris,

Helsinki 2003

The contents of the Bulletin

may be freely quoted, but

due acknowledgement is requested.

ISSN 0784-6509 (print)

ISSN 1456-5870 (online)

Contents

Monetary policy and economic outlook	1
Financial stability	13
Challenges for Finnish economic policy in an unstable international environment by Matti Vanhala	22
Impact of the new capital adequacy framework for banks on the stability and efficiency of the financial system by Esa Jokivuolle and Jukka Vauhkonen	27
Items:	
Second supplementary budget for 2003	32
First Finnish gold/silver EUR coin	32
Eurosystem monetary policy instruments	33
Recent Bank of Finland research publications	36
Finland in brief	42
Visiting Scholars Programme	45
Balance sheet of the Bank of Finland	46
Charts	C1
Bank of Finland • Organisation	

The reduction in international tension and the stimulus provided by economic policy have substantially boosted world economic growth during the second half of 2003. This has been most noticeable in the United States and Asia. In contrast, growth has been slower to take off in the euro area, where domestic demand has only partly compensated for the sluggishness of exports.

The autumn 2003 forecasts by international organisations project rapid growth for the world economy in 2004. US growth is forecast to continue at a brisk pace, while economic activity in the euro area is also expected to recover, if rather slowly. Although recent forecasts suggest a bright outlook for the world economy in the near term, the longer-term picture is still marked by considerable uncertainty. The sharp rise in the foreign debt level of the US economy will continue, and over the next few years many countries will face serious pressures to strengthen their general government finances. Moreover, structural problems will hamper growth in many European countries as well as in Japan.

Euro area GDP fell during the early part of 2003, with only modest development of exports and investment and a rather weak employment situation. The second half of the year has brought the first signs of a gradual recovery. There has been an improvement in consumer and business confidence, with low interest rates and more favourable import prices bolstering domestic demand. International organisations forecast growth of approximately ½% in euro area GDP this year, and somewhat over 1½% in 2004. Inflation in the euro area is not expected to ease significantly in the near term.

Weak economic growth has further undermined the balance of general government finances in the euro area during the course of 2003. According to a forecast by the European Commission, the euro area general government deficit-to-GDP ratio will increase

to nearly 3% this year and remain almost unchanged in 2004 and 2005. In Germany and France, the deficit in 2004 is expected to exceed the 3% limit set in the Treaty establishing the European Community for the third year in succession. Portugal, Italy and the Netherlands are also running deficits close to the 3% limit.

It has proved difficult to apply the principles set out in the Treaty and in the Stability and Growth Pact for maintaining the stability of general government finances in the euro area in a situation where a significant proportion of euro area countries are experiencing budgetary problems. With regard to Germany and France, there has been a reluctance to apply the process set out in the Pact, and this has led to a situation where fiscal policy discipline within the euro area is dependent on political commitments given outside the framework of the Pact. If the uncertainty this has created over how to apply the principles were to continue, it could weaken the credibility of EMU and undermine its operation. In order to restore the credibility of fiscal policy cooperation it is essential for the countries concerned to eliminate their excessive deficits by 2005.

The outlook for the Finnish economy has not significantly changed since the Bank of Finland's forecast in September 2003. Growth is expected to pick up gradually in response to the recovery in the world economy, but is also expected to remain considerably more sluggish than at the end of the 1990s. The central government fiscal position is expected to deteriorate to a position close to balance this year and to go into deficit in 2004 for the first time since 1999. Although the forecast envisages accelerating growth, the foreseeable economic developments and currently available policy instruments will not be sufficient to achieve the Government's stated target of increasing employment by 100,000 jobs over the course of its four-year term. Achieving significant employment

growth will require determined continuation of reforms to the tax and benefits system and an open-minded examination of the functioning of the labour market.

World growth accelerates

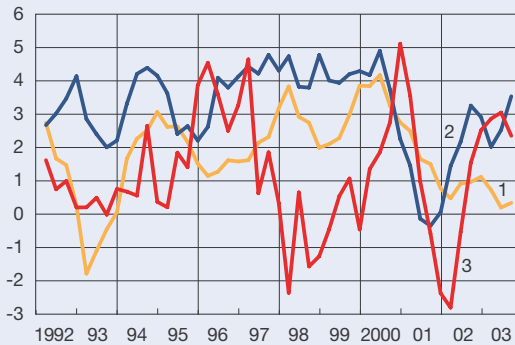
In the second half of 2003 the world economy has grown at a slightly faster pace than the Bank of Finland forecast back in September. Domestic demand

has boosted growth especially in the United States and several countries in Asia. In the euro area, too, the trend has been slightly brighter than previously forecast. There are, however, considerable differences between economies in the pace of growth (Chart 1).

In many countries, the recovery in growth has been stimulated by economic policy, and this has also shaped the structure of growth in these countries. In many places consumer demand has been brisk, while there has only been a cautious increase in investment in equipment and machinery. Despite the recovery

Chart 1.
Real GDP

Change on year-earlier quarter, %

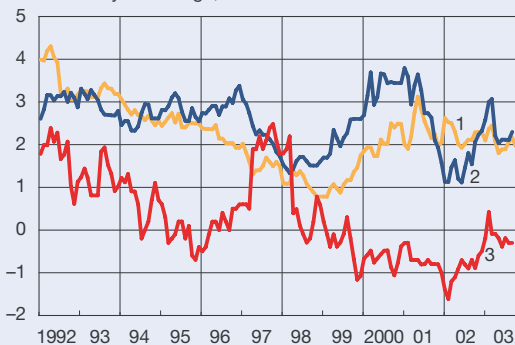


1. Euro area
2. United States
3. Japan

Sources: Eurostat, Bureau of Economic Analysis (BEA) and Economic and Social Research Institute (ESRI), Japan.

Chart 2.
Consumer prices

Year-on-year change, %



1. Euro area
2. United States
3. Japan

Sources: Eurostat and OECD.

in growth, labour demand is still sluggish in many countries and the utilisation rate of production capacity remains low. The rise in consumer prices has also remained fairly moderate (Chart 2).

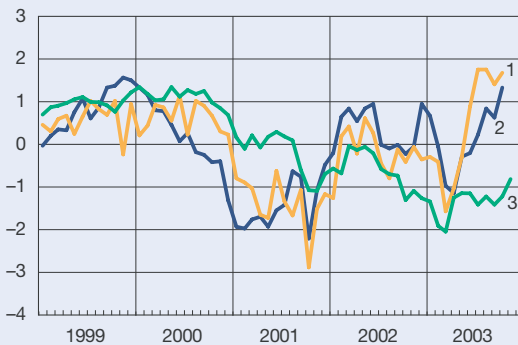
The world economy is generally expected to continue growing at a robust pace in the immediate future. Business confidence indicators show a considerable improvement, while consumer confidence indicators are also displaying better figures than early in the year (Charts 3 and 4). In addition, there has been a general continuation of the rise in share prices

that began in the spring, while the uncertainty on the stock and corporate bond markets has further receded in recent months. The global economic recovery has boosted demand for oil at the same time as output has been restricted by production difficulties in Iraq, amongst other factors. As a result, the price of oil has at times risen above USD 30 a barrel during autumn 2003. Other commodity prices have also risen as a result of global growth and the weakening dollar.

Notwithstanding the favourable near-term outlook, considerable uncertainty continues to over-

Chart 3.
US confidence indicators

Scaled index¹



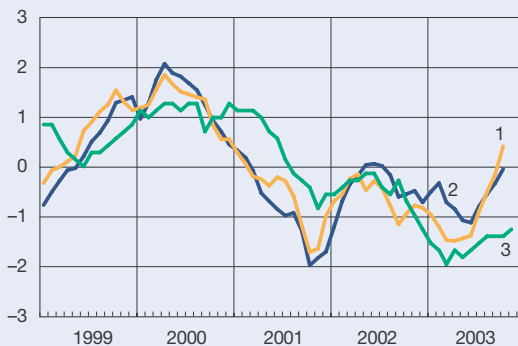
1. Services Purchasing Managers' Index (PMI)
2. Manufacturing Purchasing Managers' Index (PMI)
3. Consumer Confidence Indicator (CCI)

¹ The index shows the distance from the average in the form of standard deviations. The average and standard deviation are calculated on the basis of observations over the time frame of the chart.

Sources: ISM and Conference Board.

Chart 4.
Euro area confidence indicators

Scaled index¹



1. Services Purchasing Managers' Index (PMI)
2. Manufacturing Purchasing Managers' Index (PMI)
3. Consumer Confidence Indicator (CCI)

¹ The index shows the distance from the average in the form of standard deviations. The average and standard deviation are calculated on the basis of observations over the time frame of the chart.

Sources: European Commission and Reuters.

Box. Differences in employment trends between the euro area and the United States

Euro area employment trends have in recent years differed notably from those in the United States. At the beginning of 2001, US companies responded to the deteriorating economic situation by making substantial cuts in their workforce, while in the euro area the number of employed continued to grow. More recently, euro area companies have still been fairly keen to hold on to their employees rather than cutting costs by laying people off.

After the beginning of 2002 the US trend in the number of employed looks different depending on the figures used (Chart). The most commonly used statistics, which are based on a survey of businesses and show the size of the non-farm payroll, indicate a moderate increase in the number of employed that did not begin until August 2003. In contrast, the household survey – used, among other things, to calculate the US unemployment rate – indicates the number of employed has been growing since the beginning of 2002 and is now slightly higher than at the beginning of 2001. The difference between these two sets of statistics can be partly explained by an increase in self-employed entrepreneurs and in jobs in agriculture, as these are not taken into account in the business survey statistics. However,

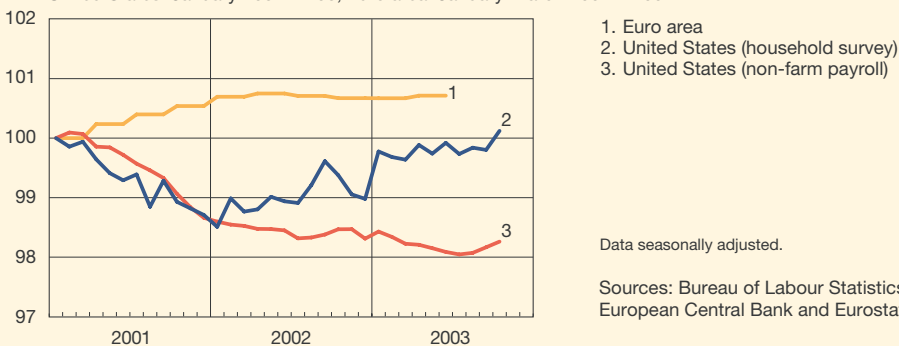
according to official sources in the United States, the business survey statistics illustrating the number of non-farm jobs can be considered more reliable as an indicator of the state of the labour market, as they are based on payroll data provided by companies that are superior in quality to the data provided in the household survey. They are also compatible with other key labour market indicators as well as with PAYE (pay as you earn) data provided by the tax authorities.

In the euro area, the growth in the number of employed over the past two years can be largely attributed to the increase in jobs in the service sector, and the public sector in particular. In contrast, the number of jobs in industry began to decline during 2002. There has also been a strong contraction in industrial employment in the United States according to both the above-mentioned sets of statistics.

Since the beginning of 2001 the number of people unemployed in the euro area has increased by approximately 1.5 million. The simultaneous increase in the numbers of employed and unemployed reflects, amongst other things, a rise in the labour force participation rate (the size of the labour force in relation to the working-age popula-

Chart.
Number of employed

United States: January 2001 = 100, Euro area: January-March 2001 = 100



tion). During the same period, the number of unemployed in the United States has increased by almost 3 million.

The different employment trends in the United States and the euro area in recent years are good indicators of the differences in how companies and labour markets operate in the two areas. The US economy adjusted to the recession largely by shed-

ding labour. This meant a quicker recovery in profitability, which in turn paved the way for a recovery in growth. The euro area has been slow to adjust, and there has only been a marginal improvement in companies' profitability. Forecasts suggest the euro area economy will also be slow to recover.

shadow the longer-term prospects for the world economy. Although the end of the war in Iraq brought some reduction in international tension, problems remain. There have been setbacks in the process of world trade liberalisation, including even the establishment or consideration of new obstacles to trade. The task of redressing the imbalances in the world economy is still incomplete. The need to strengthen general government finances in many countries, the continued rise in the foreign debt level of the US economy and a variety of structural problems in Europe, Japan and elsewhere will all continue to hamper these economies' capacity for sustained growth. As a result, it is possible there could be a return to slower growth in the world economy as the stimulus provided by economic policy measures gradually subsides.

United States has plenty of spare labour and capacity

At the beginning of 2003 the crisis over Iraq and the continuing aftermath of the over-investment and stock market bubble at the turn of the millennium dampened economic activity in the United States. Since the spring, however, output growth has picked up. During the third quarter of the year output was up by over 8% on the second quarter (at annual rate) and growth was the highest for approximately 20 years.

Low interest rates and strongly supportive fiscal measures have assisted US growth. Tax cuts and the remortgaging of housing loans have increased households' disposable income and sustained the strong growth in private consumption. There has also been a substantial increase in public sector demand, and defence spending in particular. However, although there has been an increase in housing construction

and investment in communications and information technology, traditional investment in equipment and machinery has been slow to pick up.

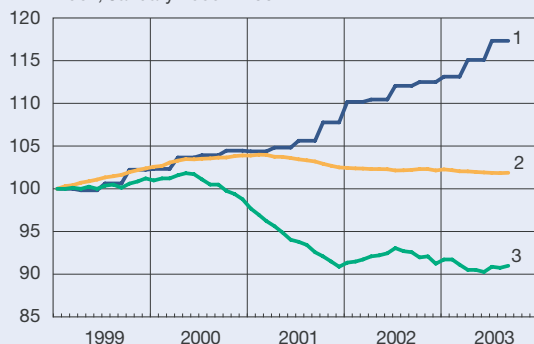
US growth is expected to continue at a brisk pace through the end of the year and the early part of 2004, if notably more slowly than in recent months. Over the next few months growth will probably gain from inventory stocking, amongst other factors. At the same time, however, the impact of private consumption is expected to gradually weaken as the effects of tax cuts wear off and the remortgaging of housing loans gradually declines with rising market rates.

The longer-term outlook for the US economy is overshadowed by considerable – and to some extent still growing – imbalances in the shape of current account and general government deficits and considerable household indebtedness. Admittedly, the weakening of the dollar that began last year should gradually slow the pace of growth in US foreign debt. Nevertheless, there has been a dramatic deterioration in general government finances in the United States over the past couple of years. Economic recession, the exhaustion of revenue from extraordinary tax items, major tax cutting programmes, the steps taken to counter terrorism and the war in Iraq have all served to convert a federal budget surplus into a sizeable deficit. In the budget year ending in September 2003 the federal fiscal deficit increased to 3.5% of GDP. The aggregate value of state budgets also reveals a deficit. The federal budget position is expected to weaken further in 2004.

The recent growth in the US economy has been based almost entirely on improvements in productivity, with only a modest improvement in the employment situation (Chart 5; see also Box). The disappearance of jobs in manufacturing has been both severe and prolonged. Despite the strong growth

Chart 5.
Productivity, employment and capacity utilisation in the United States

Index, January 1999 = 100

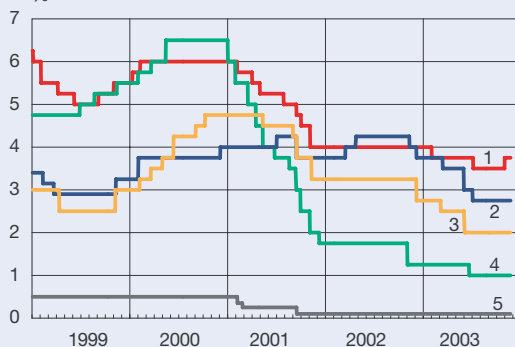


1. Productivity
2. Employment
3. Capacity utilisation

Sources: US Department of Labour and Bank of Finland.

Chart 6.
Policy rates

%



1. United Kingdom: repo rate
2. Sweden: repo rate
3. Eurosystem: main refinancing rate / minimum bid rate
4. United States: fed funds target rate
5. Japan: discount rate

Source: Reuters.

in output, capacity utilisation rates have remained low, albeit with considerable variation between sectors. Strong productivity growth, plentiful reserves of labour and low utilisation rates all serve to dampen price pressures, and the US Federal Reserve has held its key rate at an exceptionally low level (Chart 6).

Stronger growth also in Japan

The Japanese economy has grown faster than forecast this year. Rapid growth in demand in China and

some other Asian countries has had a knock-on effect in Japan, where increased exports have boosted investment. Household consumption has, however, remained low.

Despite the improved outlook for companies, the Japanese economy is still facing serious problems. Deflation continues to bite, while the gross general government debt is running at around 160% of GDP and the budget deficit at around 8%. There has been no significant improvement in the banking system. As a result, international organisations forecast a return to slower growth in Japan in 2004.

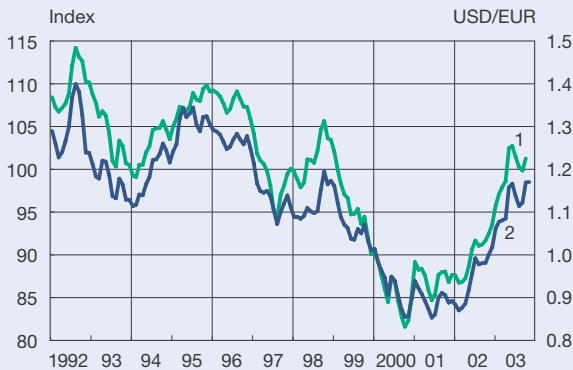
Depreciation of the dollar

The depreciation of the dollar against the euro and several other currencies could pave the way for a gradual restoration of balance in the global economy (Chart 7). Measured by the trade-weighted currency index, the euro has gained over 10% on its average value in 2002, while the gain against the dollar is approximately twice this figure. Despite the considerable appreciation in the value of the euro during 2003, it has largely been a matter of recovering from

the extremely weak position of the currency in 2000–2001.

Since June 2003, the ECB's minimum bid rate for main refinancing operations has been 2.0%. The longest Euribor rates have subsequently risen, but money market rates remain extremely low, both nominally and in real terms (Chart 8). Since early summer, there has been a rise in long-term interest rates both in the euro area and elsewhere, including the United States. Index-linked bond yields would seem to indicate that the rise in long-term interest rates is

Chart 7.
Euro's effective and USD exchange rates

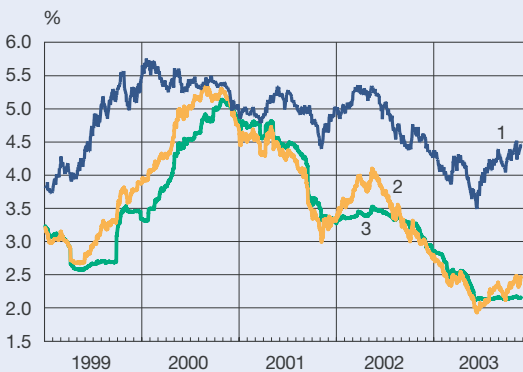


1. Index, 1999 Q1= 100 (LHS)¹
2. USD-value of one euro (RHS)²

- 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.

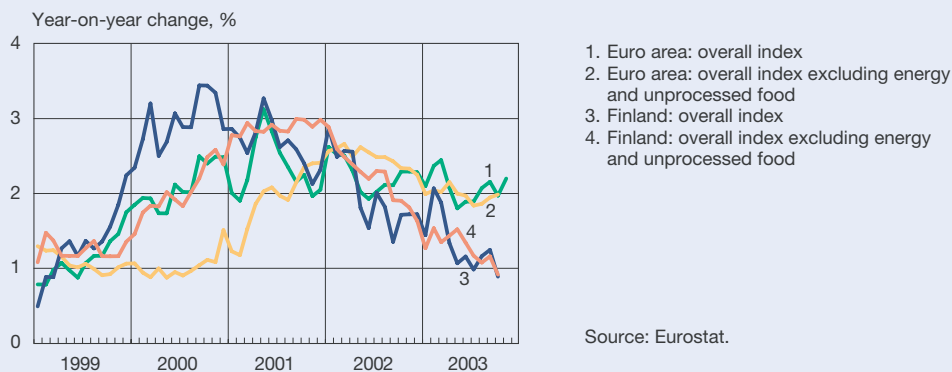
Chart 8.
Euro area interest rates



1. 10-year bond yield
2. 12-month Euribor
3. 3-month Euribor

Source: Reuters.

Chart 9.
Harmonised index of consumer prices



due primarily to stronger inflation expectations. These may have been influenced by the rising price of oil and other commodities, growing levels of general government deficit and abundant global liquidity. In the United States, the weakening dollar may also have been a contributory factor in raising inflation expectations.

Decline in euro area GDP comes to an end

During the first half of 2003 there was a decline in euro area GDP. Weak international demand and the strengthening euro hampered exports at the same time as companies were reducing investment and the poor employment situation was undermining consumer confidence. Of the five largest countries in the euro area, only Spain increased its GDP in the first half of the year.

In early autumn the euro area as a whole began to show signs of a recovery in growth. The Purchasing Managers' Index (PMI) and the industrial confidence indicator published by the European Commission both showed a relatively rapid rise. According to a survey of banks, corporate credit demand was also showing signs of recovery. Household confidence also recovered somewhat in the autumn, if only slightly (Chart 4).

Preliminary figures indicate that euro area GDP did actually begin to rise in the third quarter, with an increase on the previous quarter of approximately 1½% (annual rate). Forecasts by international organisations suggest the recovery in growth will continue in the months ahead, if rather slowly. Households' concern over the future, and the employment situation in particular, is sustaining the level of precautionary savings and dampening growth in consumer demand. The unemployment rate in the euro area is now almost 9%. There is no reason to expect any rapid improvement in the employment situation, as companies made relatively few adjustments to their workforce levels during the recent recession (see Box). As demand recovers, companies are expected to meet the increasing output demand primarily with their existing workforce.

According to the above-mentioned forecasts by international organisations, growth and productivity in the euro area will remain modest in the next few years in comparison with the United States. This is generally attributed to structural inflexibilities in the euro area countries. According to the OECD, competition in product markets within the euro area, and particularly in the labour market, falls short of the level in the United States. It is to be hoped that the recent improvement in growth prospects in the euro area will not undermine the political will for carrying through structural reforms in the economy.

Euro area inflation around 2%

The rate of consumer price inflation in the euro area, as measured by the Harmonised Index of Consumer Prices (HICP), has recently remained around 2% (Chart 9) and is not expected to slow significantly in the near term. The dry summer caused problems across Europe in the production of many food products, and this has been reflected in consumer prices. It is possible that prices will continue to rise. Moreover, in some large euro area countries there is a prospect of increases in indirect taxes and administered prices, which will exert a temporary impact on euro area inflation during 2004.

Over the longer term, inflation in the euro area is expected to ease. The pace of increases in labour costs has remained moderate, in addition to which the appreciation of the euro reduces price pressures from imports.

The euro area monetary aggregates have continued to grow at a rapid pace, and there is still plenty of liquidity in the system. Annual growth in the broad aggregate M3 has been in the region of 7–8%. Low interest rates are also contributing to growth in the volume of lending to the private sector. The increased lending is still focused to a large degree on housing purchases.

General government finances weakened in the euro area

According to the autumn 2003 Commission forecast, the euro area general government deficit-to-GDP ratio will rise from last year's figure of 2.2% to 2.8% this year and then remain almost unchanged in 2004 and 2005. The deficit estimate for 2003 is around one percentage point higher than projected in the stability programmes approved at the end of 2002 and beginning of 2003. The deterioration in general government finances is due primarily to slower-than-forecast economic growth. Tax revenues in particular have been smaller than expected, while the increase in unemployment-related expenditure has been greater than forecast.

In Germany and France, the deficit-to-GDP ratio in 2002 already exceeded the 3% limit set in the Treaty establishing the European Community. The Commission forecasts that the deficit in both coun-

tries will exceed 4% in 2003, and still be almost 4% in 2004. Italy and Portugal's deficits are also expected to rise to around 3% in 2004. This year these countries have resorted to extensive temporary measures to reduce their deficits. The general government deficit in the Netherlands is also approaching 3% this year.

The deteriorating situation led to action by the Commission. In October–November, the Commission issued recommendations to the ECOFIN Council for balancing the general government finances of France and Germany, proposing extensive extra measures by these countries to reduce their deficits already in 2004 in order to bring them under the 3% limit by 2005. This proved to be a difficult issue for the Council, which was unable to reach a decision in line with the Commission's recommendations. By abandoning the process indicated in the Stability and Growth Pact, the ECOFIN Council has created an unfortunate precedent that could hamper future cooperation over fiscal policy. One positive aspect, however, was the political commitment made by France and Germany in the Council's conclusions to correct their excessive deficits by 2005 at the latest. From the perspective of the credibility of a fiscal policy framework supportive of the operation of EMU, it is vital these countries show determination in carrying through on this commitment. Despite the reluctance to follow the letter of the Stability and Growth Pact at this juncture, correction of the deficits by 2005 would respect the spirit of the Pact and help restore confidence that the fiscal policy rules for the euro area apply equally to all Member States.

Growth in Finnish GDP

The first half of 2003 was a time of modest development for the Finnish economy as the weak global economy depressed exports and led to a reduction in investments. The extended export recession began to undermine the ability of manufacturing industry in particular to retain its workforce. However, despite redundancy notices and lay-off warnings, there was buoyant growth in household consumption. Car sales were particularly brisk, spurred on by the reduction in car tax.

In its macroeconomic forecast for 2003–2005 published in September, the Bank of Finland esti-

Chart 10.
Finnish GDP

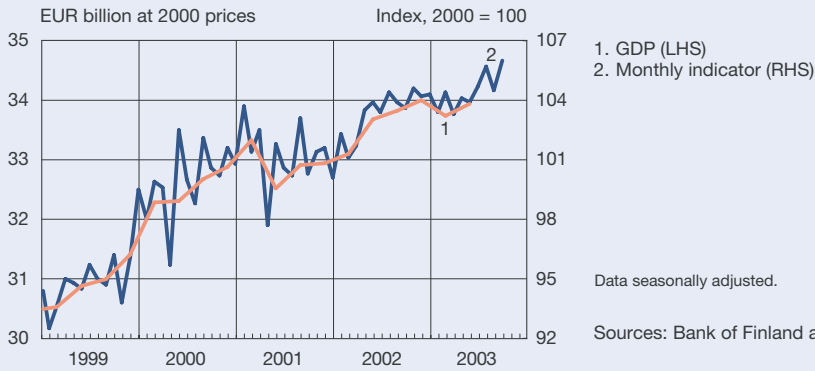
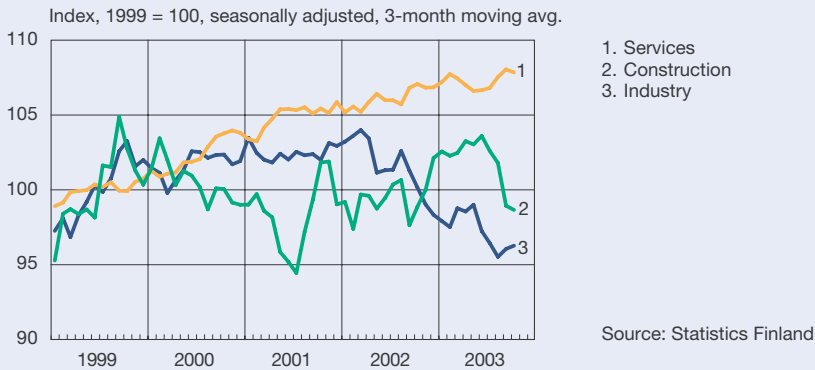


Chart 11.
Sectoral employment trends in Finland



mated that the global economic recovery will begin to be felt in the Finnish economy in the second half of 2003. Recent data suggests this is in fact happening. Overall output in recent months appears to be developing as forecast, with electronics being one of the sectors leading the way (Chart 10). Activity in the retail trade has continued to be brisk, and the autumn Business Tendency Survey of the Confederation of Finnish Industry and Employers (TT) showed

increased optimism, with a higher number of new orders coming in. Admittedly, the outlook varies considerably between the different sectors: while there has been a clear improvement in expectations for the technology sector, most sectors do not see any significant improvement in their near-term prospects.

The picture in the labour market this year has been rather unusual. Although, according to Statistics Finland's Labour Force Survey, there has been a reduc-

tion in employment, there has not, contrary to expectations, been a concomitant rise in the number of unemployed. The seasonally adjusted unemployment rate has remained around 9%. It would seem that the sluggish economy has led some members of the working-age population to leave the labour market, for example to begin studying. Between October 2002 and October 2003 the number outside the labour market increased by over 50,000.

If the recovery in the global economy progresses as expected, Finnish growth is forecast to gradually accelerate to around 3% as a result of increasing export demand and investment in productive capacity. Growth in private consumption is also expected to continue at a reasonable level, bolstered by the positive trend in real incomes. The recovery in growth is not expected to increase labour demand in the near term; on the contrary, a further slight contraction in employment is still to be expected. Moreover, the structure of employment could weaken still further if lower employment in the private sector is balanced by increased employment in the local government sector (Chart 11).

Changes in taxation to reduce inflation

There has been a notable slowing in the pace of consumer price inflation in Finland during 2003 (Chart 9). Measured by the Harmonised Index of Consumer Prices (HICP) the pace of inflation in recent months has been around 1%. The reduction in car tax and increased competition have lowered the average prices for industrial goods from last year. The price of energy has also come down since the early part of the year, as the appreciation of the euro has reduced the euro price of oil. The rise in service prices has also slowed as a result of increased competition, for example in air travel.

Changes in taxation will have a major impact on inflation in the early part of 2004. As a result of the reduction in excise duties on alcoholic beverages the year-on-year change in the HICP could be close to zero for several months. This will, however, only be a temporary effect. When the impact of taxation changes and other temporary factors wears off, inflation is expected to pick up again as forecast by the Bank of Finland in September.

Central government finances into deficit

In September, the Bank of Finland estimated that Finland's general government fiscal position would remain in surplus in the immediate years ahead. However, the Bank considered that the present relatively sluggish level of economic growth allied to the exhaustion of extraordinary revenue items and tax cuts would cut the income of central and local government to such an extent that the surplus would rest entirely on the employment pension funds. Recent developments give no cause to change this estimate. Central government finances are still forecast to go into deficit in 2004. Despite deficits in the immediate years ahead, the Government's target of a balanced central government fiscal position is achievable by the end of its four-year term, provided the pace of growth in central government expenditure remains modest. This contrasts with the situation in local government, where it appears the municipal authorities will find it hard to remedy their fiscal deficits without raising their tax rates and cutting their expenditure on consumption and investment.

Towards the end of the present decade a slowing in the pace of growth in tax receipts combined with increased expenditure on pensions and care for the elderly will put an increasing strain on Finland's general government fiscal position. Although population ageing will affect the entire developed world, Finland will have to confront the phenomenon at an exceptionally early stage. In only a couple of years from now the change in population structure will begin to reduce the size of the Finnish labour force. It is therefore essential to find answers soon to the challenges presented by demographic ageing. Calculations by both the Bank of Finland and the Ministry of Finance indicate that, without new measures to balance the fiscal impact, covering the costs of demographic ageing will require tax increases equal to 4% of GDP. An increase in taxation of this size would be neither desirable nor, in all probability, even possible. On the contrary, increasing international tax competition and the need to raise the employment rate would rather require additional cuts in the present level of taxation.

The balanced development of general government finances will in the future still depend on controlling expenditure. The keys to this are to reduce unem-

ployment and improve the efficiency of public services. The Government's statement on proposed changes to corporation and capital income tax has implications for employment. Lowering the tax rate for corporate income will help to retain Finland as an attractive business location, thereby supporting employment. On the other hand, the change to the dividend tax system will mean higher taxes for many domestic owners, which could reduce the incentives for entrepreneurship and weaken the capital structure of medium-to-large companies in particular. Moreover, in the case of listed companies it could

favour foreign ownership at the expense of Finnish owners. Looking at the proposed corporate and capital income tax reforms as a whole, there is substantial uncertainty surrounding their long-term effects on the economy and on employment.

1 December 2003

■ **Key words: inflation, monetary policy, economic outlook**

In 2003, the risk tolerance of the international financial system has been put to the test by difficulties in the recovery of the global economy and uncertainties in the international arena. The expansion of public deficits in many countries, including developed ones, has been worrisome, and the situation has by no means improved in the course of 2003. For example, the current account and federal budget deficits in the United States are now historically very large. At least so far, these problems have not caused any significant difficulties in the global financial markets. For the time being, foreign investors have invested heavily in US securities, which has helped cover the large current account deficit. If these investments were to dry up, there could be significant consequences.

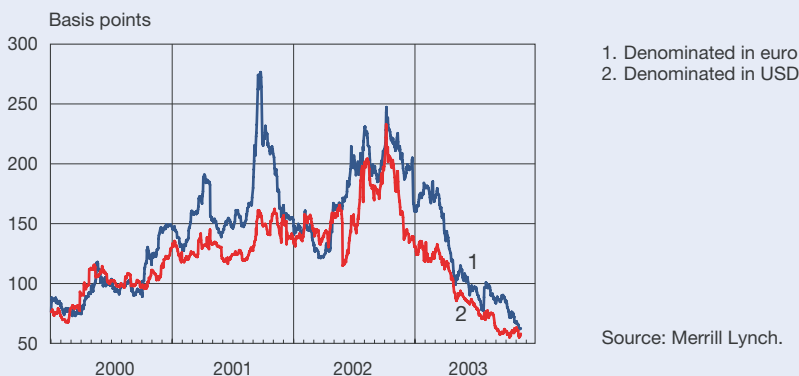
The state of the global economy is expected to improve somewhat, which has brightened the outlook

for companies in the financial sector. Acceleration of growth is already clear in the most recent GDP growth figures from Asia and North America. Many international forecasts expect further acceleration of growth in the major economic areas in 2004. However, this pick-up in growth may be short-lived, as development is overshadowed by imbalances.

Since the Second World War, long-term interest rates have rarely been as low as in the first half of 2003, but bond yields have now clearly risen in the main currency areas. The rise in interest rates may have resulted from loan demand by the public sector caused by budget deficits, but could also be partly due to expectations of a growth in investment demand. In addition, inflation expectations have probably had an influence on nominal interest rates. Investors have also become increasingly interested in higher-risk bonds, whose yield spread over low-risk loans has already been narrowing for a few months now (Chart 1). Hence, it would appear that market assessments on the condition of the corporate sector have become more favourable.

¹ This article is to a large extent based on the publication *Financial Stability*, a special issue of the *Bank of Finland Bulletin* published in October 2003.

Chart 1.
Interest rate spread between BBB and rated bonds
Maturity approximately eight years



Following the terror attacks in 2001, the financial system has been affected by the materialisation of many risks not directly related to economic development. Scandals with a bearing on the financial system have continued to emerge in the United States, where malpractice related to mutual funds has been revealed. The crisis in Iraq, related political tensions and the SARS epidemic increased uncertainty in early 2003. The money and capital markets have, however, proved to function well under difficult conditions. Breaks in the supply of electricity that occurred in various parts of the world did not have a significant effect on the functioning of the financial markets.

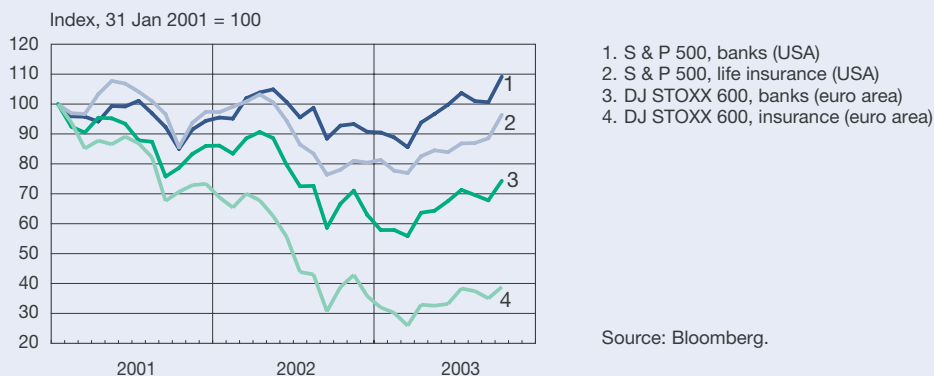
The outlook for the banking sector varies greatly by market area. In a few major countries, there have been constant problems for a long time now, while in many other economies the condition of the sector remains good. The prevailing low level of interest rates has probably decreased loan losses in all developed market economies. In contrast, the state of the insurance sector has deteriorated globally in the past few years. The main reason for the difficulties in the sector has been the decline in share prices. The credit ratings of insurance companies decreased and their stocks declined in relation to banking stocks in almost all developed countries (Chart 2). However, the gradual rise in share prices which began this spring has alleviated the situation in the sector. IT shares, which took the heaviest fall in the bear market, have risen particularly sharply.

Present condition of the financial markets in the EU

The euro area's own problems probably constitute a bigger threat to its financial markets than the situation in Asia or America. Macroeconomic development has been weak. In the first half of 2003, GDP growth was zero. In the largest euro area economies, output actually contracted somewhat in the second quarter. According to a forecast published by the European Commission in October, GDP growth in 2004 would only amount to 1.8%. The slow pace of growth may serve to increase banks' loan losses and hinder their income accrual.

From the viewpoint of the financial system, one of the main problems is the constantly high level of indebtedness in the euro area corporate sector, which impairs risk tolerance in the sector. However, indebtedness differs significantly across countries. Pressures to lighten the burden of debt decrease companies' willingness to borrow. In particular, the condition of small companies in many EU countries seems rather weak, and no upturn is yet in sight. In recent months, however, there have also been positive signs from the corporate sector. Corporate re-ratings earlier this year point to a downturn in the rise of credit risks. Bankruptcies of rated companies have decreased. Similar developments are also indicated by the stock markets, which turned from protracted decline into a rise in the second and third quarters of the year.

Chart 2.
Insurance and banking sector share indices in the United States and Europe



In 2001 and 2002, there was a marked deterioration in the profitability of banks in the EU area. Profitability development has, however, differed between the banks in different countries, and also very much between individual banks within a single country. Data available for 2003 indicate that the profitability of the largest banks at least is up on the previous year. This improvement stems both from cost cutting and from an improvement in the condition of banks' customers. The prices of banking stocks in Europe rose particularly in spring and early summer (Chart 2).

Despite weakening profitability in previous years, the capital adequacy of banks in the EU area has so far remained good. The Nordic banking sector is on average in better condition than those in other Member States.

Under an EU regulation, International Accounting Standards (IAS) will become compulsory in 2005 for preparing the consolidated financial statements of all listed companies in the Member States. The regulation also applies to listed companies in the banking and finance industry. Member States may also allow or require non-listed companies to prepare their financial statements according to IAS. For the financial sector, the relevant aspect of the reform is the change in valuation practices, which means that a larger proportion of balance sheet assets are to be valued at their fair market value. This reform may affect the stability of the banking system in many ways. It could fortify confidence in banks by improving the reliability of public financial statements as a source of information. In addition, it would prevent banks from letting problems hidden in their balance sheets balloon out of control. The reform would also likely increase the volatility of banks' imputed profitability. The consequences of this are not totally clear.

In many parts of the world, including all EU countries, capital adequacy requirements have been established based on recommendations by the international Basel Committee on banking supervision. These recommendations are currently in the process of being revised (Basel II). The new standards are to be implemented around the world by national statutes, and within the EU by directives. Finalisation of the capital adequacy reform has now been postponed. On 11 October, the Committee indicated that the final version of a new agreement on capital adequacy requirements will not be finalised until mid-2004. According to the Committee, several areas still re-

quire more consideration, particularly the treatment of expected and unexpected loan losses, securitisation² and the treatment of credit card commitments and risk mitigation techniques in the capital adequacy framework.

Domestic operating environment

Growth in the Finnish economy has continued to be slow. Exports and investment in machinery and equipment have slowed, but growth has been sustained by private consumption. There have been some signs of recovery, but a cyclical upturn remains uncertain. An improvement in the cyclical situation would also benefit the financial sector. Industry expectations have brightened, which may indicate an increase in loan demand. The number of bankruptcies has clearly decreased from 2002, so the total amount of loan losses is unlikely to be very large. Unemployment has remained fairly stable from autumn 2002, so households are unlikely to cause significant further loan losses to banks despite the likelihood that the employment situation will deteriorate somewhat in the near future.

Share prices also suggest the economic recovery is beginning. The HEX portfolio index has risen about 25% in half a year. The HEX sub-index for banking and insurance rose by almost 30% from May to November. Trading volume in Helsinki Stock Exchange has risen this autumn from the sluggish early part of the year, but is still lower than a few years ago.

Household indebtedness has continued to rise mostly because of a brisk demand for housing loans. The level of central government debt has also started to increase again due to the economic downturn. Finland can nowadays borrow on the government bond market at roughly the same rate of interest as Germany, for example. Only a few years ago, Germany government could borrow much more cheaply, as German government bonds were considered more a secure investment. In contrast to central government, indebtedness and borrowing in the corporate sector

² Securitisation refers to the selling of assets in the form of securities to investors.

has decreased, owing partly to the low level of investment (Charts 3 and 4).

Finnish banking and insurance sector

At present, banks' credit risks are low and the likelihood of loan losses that could endanger stability is low. Banks' credit risks from the corporate sector are relatively well diversified, and despite the sluggishness of the economy, specific problem industries have not emerged. In contrast, banks' risks related to the development of housing prices have risen due to strong growth in the stock of housing loans. Viewed

historically, however, the credit risks from housing loans seem low. Risks related to the development of share prices are low at present, although the results of life insurance companies within banking groups clearly depend on share prices. Real estate risks have declined in recent years as banks have reduced their real estate holdings.

The profitability of the largest banking groups operating in Finland developed favourably in the first three quarters of this year. The main reason for this was the rise in share prices, which both improved the results of life insurance companies within banking groups and improved the profitability of the banks' activities related to the stock market. If share prices

Chart 3.
Debt ratio by sector in Finland

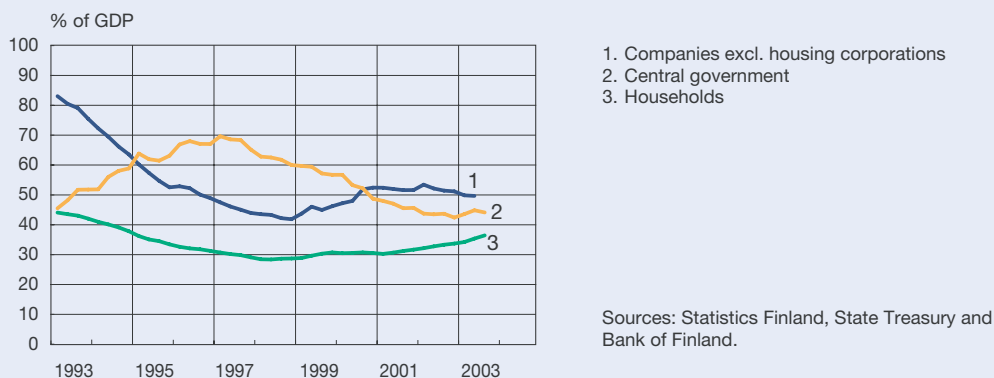
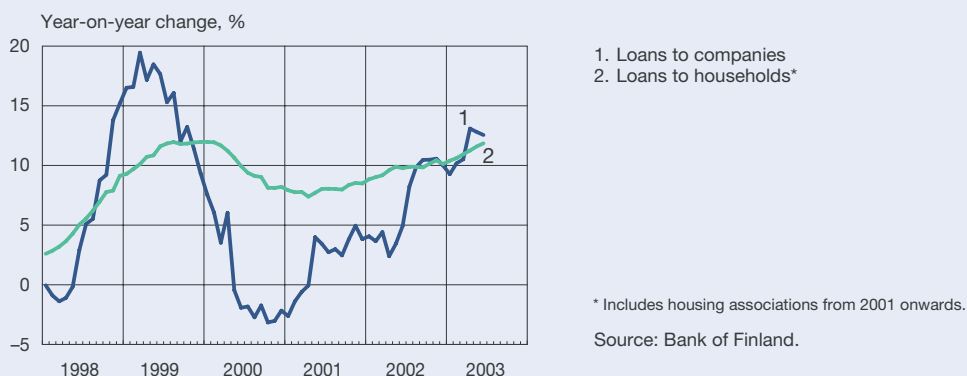


Chart 4.
Deposit banks' lending growth in Finland (loans to households and companies)



were to decline again, this improvement could well turn out to be temporary. The low level of interest rates has hindered the accrual of interest rate income. For example, the interest rates on new housing loans are very low in comparison to previous years (Chart 5). On the other hand, low interest rates are a major reason for the low level of loan losses. Although the economic slowdown has continued for three years, there has only been a slight increase in loan losses.

The operative result of the amalgamation of cooperative banks (OKO Bank Group) from the three first quarters was much larger than a year earlier. The improved result was to a large extent attributable to the improvement in the result of the life insurance company Aurum, which belongs to the amalgamation. Net income from securities and currency trading was also markedly improved from the previous year. In contrast, net income from financial operations contracted. There were no significant changes in expenses.

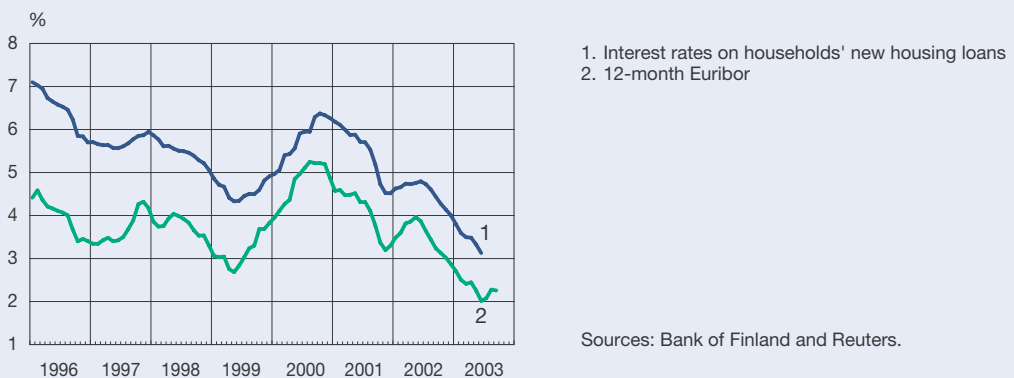
The operating profit of Sampo Group in January–September was smaller than a year earlier. However, this was mostly due to extraordinary capital gains realised during the reference period. The profitability of life insurance operations improved significantly, but the profitability of banking activities decreased as a result of lower net income from financial operations, among other things. Costs decreased, partly due to a drop in personnel.

The operating profit of the Nordea Group in January–September was roughly 30% larger than a year

earlier. Favourable developments in life insurance operations were an important reason behind the increased operating profit, but the profitability of banking activities also showed improvement. Increased income from securities trading and lower costs boosted profitability. In contrast, net income from financial operations contracted somewhat. Restructuring of the Nordea Group has continued. The Group's parent company, Swedish Nordea AB (publ), is in the process of becoming a bank. An extraordinary general meeting on 22 October approved a change of the articles of association. According to the new articles of association, the purpose of the company is to engage in banking activities, and its name will be Nordea Bank AB (publ). According to the old articles of association, the purpose is to own and manage banks and other credit institutions. The group is planning to merge its subsidiary, Nordea Bank Sverige AB (publ), which has engaged in banking in Sweden, into its parent company in early 2004, when the amendment of the articles of association of the parent company will also be carried out. The intention then is to change this bank into a *societas europaeae (SE)*, whose domicile will continue to be in Sweden. Other banks belonging to the Group located in EEA countries will be merged into this company at a later stage.

In recent months, there have been some malfunctions in the information systems of Finnish banks. These problems have not had large-scale consequences. Virus protection and other means of data

Chart 5.
Interest rates on households' new housing loans and 12-month Euribor



security will become an even more central part of banks' risk management in the next few years.

Investment funds specialising in short-maturity debt instruments have continued their robust growth. From September 2002 to September 2003, assets in these funds grew by more than 60%, although net subscriptions to the funds in September 2003 were negative. In Finland, these funds already amount to over 10% of the items included in M3, the broadest statistical concept of money in circulation. From the saver's point of view, money market funds and bank deposits are fairly similar and thus competing savings products. If this trend continues, banks will have to replace their dwindling deposit funds with loans from more expensive sources.

The solvency ratios of insurance companies clearly fulfil statutory requirements. The aggregate solvency ratio of life insurance companies has increased to stand at 14.6% at the end of June. According to the Insurance Supervision Authority, the solvency margin of statutory pension insurance companies exceeded the solvency limit by 106%. Individual retirement insurance policies are increasing in im-

portance as a method of household saving. Measured by premiums written from the first three quarters, their market has grown by approximately 12% from 2002. On the other hand, according to the Federation of Finnish Insurance Companies, premiums from other life insurance policies decreased.

Current state and future outlook for the financial system infrastructure: structural change and the challenges for oversight and supervision

The infrastructure of the financial markets has lately been changing rapidly. Centralisation has created payment and settlement systems serving many countries. Their oversight and supervision poses totally new kinds of challenges for the authorities, especially as regards questions related to the governance of the systems. Banks' interfaces to international payment systems have changed significantly. The TARGET 2 system being planned for large payments, STEP 2 for intra-EU retail payments and the CLS system for

Table I. Results of deposit banks

	Operating income, EUR m			Other income, ¹ EUR m			Total expenses, ² EUR m			Loan losses, ³ EUR m		Operating profit, ⁴ EUR m		
	1-9 2003	1-9 2002	Change, %	1-9 2003	1-9 2002	Change, %	1-9 2003	1-9 2002	Change, %	1-9 2003	1-9 2002	1-9 2003	1-9 2002	Change, %
Nordea Group	2,516	2,566	-1.9	1,724	1,647	4.7	2,821	2,880	-2.0	279	185	1,429	1,101	29.8
* Nordea Group, banking activities	2,775	2,796	-0.8	1,613	1,507	7.0	2,799	2,856	-2.0	249	172	1,353	1,298	4.2
* Nordea's Finnish retail banking operations	582	663	-12.2	282	245	15.1	460	453	1.5	9	-3	413	452	-8.6
Sampo Group														
* Sampo Group's credit institution and investment service activities	304	337	-9.8	174	177	-1.7	307	312	-1.6	3	-6	172	212	-18.9
OP Group	600	637	-5.8	330	303	8.9	547	549	-0.4	4	-1	403	341	18.2
* OKO Group	119	120	-0.8	126	61	-	100	96	4.2	3	-3	134	64	-
Savings banks (excl. Aktia) total	86	96	-9.6	27	23	15.0	80	73	8.6	0	-1	34	46	-27.2
Aktia Savings Bank Group	56	56	-0.9	29	28	6.5	60	65	-8.3	2	0	25	19	28.9
Local cooperative banks	57	61	-6.7	16	11	45.5	50	48	3.6	0	0	24	25	-2.0
AAB Group	22	24	-7.1	13	11	22.9	23	24	-2.5	0	0	12	11	11.0
eQ Online Group	1	1	58.2	9	7	28.2	12	10	17.2	0	0	-1	-2	-
Total	3,902	4,008	-7	2,212	2,067	7.0	3,876	3,936	-1.5	258	164	2,022	1,950	3.7
Others than Nordea, total	1,127	1,212	-2.6	599	560	6.9	1,077	1,080	-0.2	9	-8	669	652	2.6

¹ Other income includes fees in net terms, but not the financial statement item 'Profit/loss of companies consolidated by the equity method'.

² Other expenses includes amortisation and write-offs from tangible and intangible assets.

³ Negative credit losses: more restorations of credit loss recorded than new credit losses.

⁴ The table items do not add up as operating profit, as some items in banks' financial statements are not included in this table.

Sources: Banks' interim reports and Bank of Finland calculations.

global currency trades represent the new generation of payment systems. On the other hand, the merger between the Swedish OM and HEX with their common systems exemplifies the ongoing trend towards integration of securities trading, clearing and settlement systems.³

However, there are certain difficulties attached to integration. Both the domestic and the international operating environment have issues related to the efficiency of financial markets and competitive neutrality that could make integration more difficult. These problems are mostly related to the ability of market participants to agree on the nature of the systems and the rules governing them. An increase in cross-border systems also increases the danger that activities will shift abroad, which would in turn necessitate the reconsideration of oversight and supervision responsibilities.

Securities clearing and settlement systems: the current state and future outlook for the infrastructure

Following recent restructuring, post-trading activities in Finland are currently part of the HEX Inte-

³ For more information on the OMHEX merger, see the Bank of Finland publication *Financial Stability* (2003), p. 56.

grated Markets division of the OMHEX Group. The merger represents an important development in terms of both reliability and efficiency, and also with regard to regulation, supervision and oversight.

As a whole, the Finnish securities infrastructure has not had any significant problems, and the execution of stock exchange trades in the allotted time has proceeded well this year, with monthly averages going over 99%. However, trades in equities and debt instruments continue to be cleared in separate systems in Finland. Such maintenance and use of parallel systems is inefficient.

The old equities clearing and settlement system (KATI) with its supplementary services will be replaced by the end of this year by the gradual introduction of a new clearing and settlement system (HEXClear). Implementation of the new system has proceeded as planned and the first stock exchange trades in HEXClear were cleared on 10 November. Provided that the new system meets expectations, it will decrease the risks of equities clearing, for example by virtue of a more flexible schedule on the clearing date. Both the authorities and HEXIM will seek through their regulation to commit the clearing parties to take responsibility for maintaining the current high level of executed trades and to participate in reducing the risks related to clearing and settlement. The new clearing price list adopted in October exemplifies the creation of appropriate incentives to ef-

Table 2. Key figures of deposit banking groups

	Return on equity, % (ROE) ¹		Expenses, % of income		Capital adequacy rates, 30 Sep 2003	
	1-9 2003	1-9 2002	1-9 2003	1-9 2002	Tier I %	Total %
Nordea Group	14.2	6.4	-	-	7.5	9.8
* Nordea Group, banking	-	-	61	64	-	-
* Nordea's Finnish retail banking	32.0	41.0	55	48	-	-
Sampo Group	12.4	-1.7	-	-	18.3	17.0
* Sampo Group's credit institution and investment service activities	17.7	19.9	64	61	11.4	13.8
OP Group	12.1	12.1	60	60	13.9	15.3
* OKO Group	19.8	8.4	43	55	7.3	11.4
Savings Banks (excl. Aktia) total	-	-	70	62	16.6	18.2
Aktia Savings Bank Group	12.2	10.0	71	78	9.4	13.2
Local cooperative banks	-	-	68	67	-	20.4
ÅAB Group	12.2	11.8	67	69	9.3	11.5
eQ Online Group	-2.7	-6.1	106	116	35.1	35.1

¹ ROE figures are not comparable.

Savings banks and local cooperative banks do not publish an aggregate ROE percentage.

Sources: Banks' interim reports and Bank of Finland calculations.

fectuate payments and transfer of securities as early as possible.

The implementation of the HEXClear system and the requirement to use central bank money increase the flexibility of account operators' liquidity management and the stability and efficiency of equities clearing and settlement. The true benefits achieved by the introduction of the new system, however, will not surface until clearing parties have learned to make use of all the opportunities it presents. Because of the changes in the clearing and settlement process and the OMHEX merger, it is as yet hard to predict the influence of the new system on the total liquidity requirement. HEXClear will also enable the implementation of central counterparty clearing, which is currently lacking in the Nordic countries.

At the same pace with HEXClear, the reform of the Swedish central securities depository has proceeded to the implementation phase. The rollout and implementation of two separate reform projects is undesirable and exemplifies the difficulty of integration in the field of securities clearing and settlement. The absence of the Swedish central securities depository from the scope of the OMHEX merger can be considered a significant drawback.

The OMHEX merger can also be seen as positive for the operational reliability of the systems, since the strong technical competence of the OM group will be at the disposal of the Group's Finnish and Baltic operations as well. Plans have been made for implementing centralised operations and management as well as common systems. The organisational arrangements required by the reform are significant. Allocation of resources is key. Baltic operations, which are still in a developmental phase, have remained isolated during the first steps of the OMHEX merger. However, the development of the Baltic operations as part of the merger is important not only for the development of marketplaces in Estonia and Latvia, but also in order to reap the efficiency benefits of broader integration of trading, clearing and settlement activities in the Nordic and Baltic countries. It is to be hoped that, in addition to Estonia and Latvia, activities will also expand into most of the Nordic Countries and the new EU Member States.

Organising oversight and supervision of the OMHEX group poses a major challenge to the authorities. Particularly problematic is the fact that the Group's Swedish parent company is not currently

subject to any kind of public supervision. This raises the question of how to organise oversight and supervision that can guarantee the authorities' information needs in the various countries where the Group operates without placing an inappropriately large burden on the supervised entity. Many functions, such as the compiling of statistics and collateral services, can be harmonised to facilitate the implementation of supervision.

Payment systems: the current state and future outlook for the infrastructure

Payment systems as a whole have functioned fairly reliably, thus promoting financial stability. Those disturbances that have occurred have not so far had an impact on stability, although in numerical terms there have been a large number of minor disturbances in TARGET. Apart from a few disturbances, other internationally important systems and domestic systems have functioned well. Settlement risks in currency trades have decreased with the launch last year of the CLS bank and the introduction of new currencies during the summer. The largest Finnish banks make use of the CLS bank in their operations.

Although the systems have functioned reliably, their adaptation to other developments in Europe, such as the general process of harmonisation, has been slow and laborious. When systems cannot be readily adapted to the needs of their users, this tends to lead to inefficiencies. In Europe there are presently many development projects being carried out in order to achieve cost savings and adapt payment system services to better meet new needs. The banking sector in the EU has taken on this challenge by establishing a cooperative body, the European Payments Council (EPC), which has developed a comprehensive plan to improve the transmission of retail payments. This initiative, known as SEPA, includes standardisation projects aimed at developing payment by cards, mobile telephones and electronic means in general. The initiative also covers the establishment of a pan-European retail payment clearing house (PEACH) for payments in the EU area. In addition, central banks have started to plan a new TARGET system, which is estimated to be completed in the second half of the decade. The aim is to create a cost-effective and reliable system that better meets market needs.

The significant structural reform of payment systems outlined above may pose a threat to payment system stability. Even the large number of changes and the general inclination toward change are by themselves risk factors. However, it is mostly a question of how well projects are carried through once they have been launched. The fundamental problems of retail payment systems and central bank systems are rather similar. The crucial issue is how a large number of parties can reach agreement so that the new arrangements are efficient and reliable, and the services they provide meet the demand.

The new TARGET system also entails the problem of organising oversight and supervision. As it is a more centralised system than before, its oversight and supervision will also need to be reorganised. A similar problem may gradually arise in retail payment systems as well. So far, however, the main question concerning retail payment systems is whether banks are able to agree on the SEPA initiative so that all banks are happy with the direction of development. For example, international direct debit has already provoked some dissenting voices. Similarly, the transfer of domestic payments to a new clearing centre cannot be taken for granted. At some point, Finnish

banks will have to decide to what degree they wish to preserve domestic retail payment systems or move on to using only the new clearing centre. The move is not self-evident, since there are already efficient retail payment systems in Finland, and domestic payments can be processed more efficiently than in the EU-area clearing centre (PEACH), which has already begun its operations.

The consolidation between Finnish and foreign banks may also have an influence on these conglomerates' payment systems and the technical means for using payment systems. For example, if domestic systems are operated from abroad, disturbances within the systems are hard to manage simply because of the physical distance and system-specific differences. Hence, in this changing payment systems scene, increasing attention should be paid to contingency planning and backup arrangements.

19 November 2003

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

Challenges for Finnish economic policy in an unstable international environment¹

by **Matti Vanhala**, Governor
Bank of Finland

Global economy

After a couple of false starts, it would appear that recovery of the global economy is under way at last. The latest economic data from the United States is more convincing, and economic activity in Asia is relatively brisk. Economic developments in Russia also deserve a mention, and there is a sense of improved optimism both in Europe and in the euro area as a whole. Stronger expansion of the global economy naturally improves the outlook for European economic growth. However, there are few hard facts supporting greater confidence in a strong European recovery.

The threats of deflation in the US and Europe, raised in the spring, in the wake of the wave of pessimism that swept both continents, have subsided and inflation expectations have stabilised at fairly satisfactory levels.

It seems likely that we will obtain robust growth figures on a global level in the near future. Against this fairly positive background one can legitimately ask why do I then refer to an ‘unstable international environment’?

The reason is that despite the favourable short-term outlook, sustainable recovery is being affected by a number of uncertainties in global terms, within the euro area and in Finland. Uncertainty is nothing exceptional – making projections on economic development is a process of making probability calculations, which by nature are always uncertain.

The fact remains that the present economic turnaround – whether it proves to be temporary or sustainable – is not typical, if such turnarounds ever are.

When the economic upswing at the end of the previous millennium was still going strong, year after year economists projected that the growth would fade, basing their judgements on certain economic imbalances accumulated over the upswing. The long-awaited weakening of growth materialised eventually. Now, after nearly three years of modest growth, corporate balance sheets and profitability have gradually improved, but the capacity usage rate is still very low and certain key macroeconomic uncertainties have remained broadly unchanged. I refer to major and continually deepening public deficits in the euro area and the US current account deficit.

Global economic expansion is starting to gather speed in exceptionally unbalanced circumstances. Extremely strong expansionary fiscal and monetary policies are the life-breath of industrial countries. While such strong expansionary measures can set recovery in motion, they alone do not create sustainable growth. Sustainable global economic growth will only begin once both the profitability and the growth prospects of the corporate sector have improved to such a level that investment is profitable. Even after the present counter-cyclical expansionary measures have lost their power, that is, and after real interest rates have returned to normal with fiscal policy more or less recovering its balance. We have yet to reach that point. In what follows I shall be looking at the situation from the perspective of the euro area, the focus being on how the problems of European public finances affect the overall economic situation. I shall conclude by commenting briefly on the challenges posed to Finnish economic policy by the present situation and outlook.

To begin with, I would like to clear the table of one particular theme: that industrial countries somehow ‘share’ or agree on how the global economy could be kept going. Such issues may be discussed by the various G-groupings, but talk about and de-

¹ Matti Vanhala, Governor of the Bank of Finland, gave a presentation at the Finance 2004 seminar held in Helsinki on 9 October 2003.

mands for coordination are mainly rhetorical devices in press releases that hardly have any relevance to economic decision-making. On both sides of the Atlantic, economic policy is shaped by local needs, as is the case elsewhere. The supposition that Europe would be able to separately lead global economic recovery, in addition to dealing with its own severe cyclical and structural problems, is an illusion.

Euro area monetary policy

Although the commencement of economic recovery has been slower in the euro area in comparison to other major economic areas, the euro area has not been completely immune to good news. According to confidence indicators, companies' expectations about the future expansion of economic activity have improved significantly. Deflation concerns have been alleviated and inflation expectations have stabilised at a level that is in agreement with price stability. Monetary stability thus appears to prevail – today.

That really sums up the positive news there is to offer about the euro area. The spread of optimism has been very modest in the euro area in comparison to the remainder of the global economy. There appears to be a rather widespread sentiment that the euro area is bringing up the rear in economic recovery, with even one foot on the brake. This kind of expectation is a self-fulfilling prophecy, in that it only reduces companies' willingness to invest in the euro area and undermines consumer confidence in their own income growth. With exports being affected by the appreciation of the euro, the demand outlook for the euro area has remained modest despite the nascent global economic recovery. In most euro area countries, the labour market is looking very bleak, to put it mildly, helping to ensure that wage developments are modest, although unit labour costs have put a burden on companies. However, price stability appears to be strongly anchored to expectations.

On the basis of this outlook, the stance of the ECB's monetary policy is easy. The ECB is now offering money at the lowest rate ever in the recent history of open European financial markets. Furthermore, banks' real lending rates are extremely low. There is no evidence, nor are there any indications, to suggest that the price of financing would prevent investments in any of the euro area countries.

Expansionary fiscal policy measures are not the answer to euro area problems

During the past year or so, euro area fiscal positions have made headline news in the financial press. The Stability and Growth Pact seems to have evolved into a separate branch of financial diplomacy. Many bitter comments purport that the Stability and Growth Pact has been irrevocably ruined. Personally I do not see the situation as quite so depressing.

A monetary union such as the EMU must have the necessary fiscal policy framework and norms in place. These can be found laid out in the Maastricht Treaty. The failure of one or several euro area countries to pursue sustainable fiscal policies is therefore a very serious matter. If budgetary problems persist, they risk steering public finances off the sustainable path, causing justified distrust in the adequacy of public finances and hence a rise in interest rates throughout the euro area, ultimately leading to slower growth in all euro area countries. It is the threat of such a course that lays down the foundation for the common interest underlying member states' financial policies, which is why the limit on public deficits was entered in the Maastricht Treaty.

Let it be added, however, that although adverse effects will be felt throughout the monetary union, the most severe consequences from a strong deterioration of public finances will be caused to the countries themselves.

Neither the Maastricht Treaty nor the Stability and Growth Pact expressly rule out exceeding the 3% deficit limit. In reality, such a ban would not be feasible. Rather, the 3% criterion must be taken as the limit which, when exceeded, turns the fiscal policy of a single member state into a matter of common interest to the extent that the member state must justify and seek approval for its fiscal policy within the monetary union, that is, at the Ecofin Council. This process is now under way. Euro area member states are currently discussing at the Ecofin Council whether the present economic situation is exceptional to such an extent that exceeding the limit could be justified.

The Stability and Growth Pact is not a slide rule. It is an agreed framework within which Member States make fiscal policy judgements in line with the Maastricht Treaty.

There are hardly any major disagreements as to what the main features of a sensible fiscal policy would be. Public finances should be stabilised within a reasonable time span by introducing a fiscal policy geared to restrict the growth of public spending. If this can be achieved, the Stability and Growth Pact has worked the way it was intended.

However, it has also been suggested, by some, that the present uncertain economic situation requires expansionary fiscal policy measures in some euro area countries. Comparisons have been made with the United States and the question has been asked as to why Europe is unable to introduce equally expansionary measures.

There are many reasons why comparisons with the United States are infeasible. Firstly, the expansion of the US public deficit is largely due to an increase in military expenses, which can hardly be regarded as counter-cyclical expansionary economic policy. Furthermore, there was, and still is, substantially more genuine room for manoeuvre in the US economy in this respect. Contrary to the euro area, US public finances were clearly in surplus when the country entered into recession. For demographic reasons alone the outlook for US public finances is clearly better than for the euro area. The growth of the US labour force will continue, thereby providing much better opportunities for financing a public deficit through economic growth. Furthermore, the tax rate is markedly lower in the US in comparison to the euro area, which also gives the United States substantially more latitude in taxation.

On both sides of the Atlantic, macroeconomic problems are a combination of cyclical and structural difficulties. In Europe, however, structural obstacles clearly outweigh cyclical difficulties, therefore calling for an entirely different set of policy actions. In opportune circumstances, expansionary policy measures can be taken to build a bridge over cyclical problems. However, if attempts are made to build a bridge over structural problems, the builders will run out of materials before reaching the other side.

Structural problems require structural reforms. Central bankers have been talking about structural reforms for so long that no one bothers to get annoyed any longer; such talk has not even served as impetus for action. The fact remains, however, that as population ageing and globalisation continue, structural rigidities will become an increasingly demanding challenge.

Recent signs in the euro area point to an increased awareness of the necessity of reform. Some countries have taken small but important steps on the path to a more flexible economy. An even more encouraging signal is that policy issues and measures which no politician interested in re-election dared to touch only a couple of years ago are now subject to active and open debate.

Finnish economy

If the expected recovery of the world economy takes hold, the Finnish economy will, without doubt, follow suit. However, forecasts suggest that the growth rate would only return to a 2–3% level. For these growth expectations to be exceeded to any significant degree, Finland would have to witness another success story similar to that of Nokia's or a number of new, successful small niche sectors would have to emerge. We can hardly expect that to happen too often in a small Nordic country.

Finland's internal and external economic environment is undergoing rapid change. The economic momentum that fostered growth in the previous decade will not suffice to secure Finland a place in international competition. Of the factors that in the future will most clearly shape the Finnish economic environment I would like to address two key issues: population ageing and international competition over the location of companies, and I am referring to the location of manufacturing operations.

Finland has been listed among the best performers in many international comparisons. We should not become too impressed. Certainly, one trend in which Finland has taken the lead is population ageing. In effect, the increase in labour growth in Finland has virtually come to a halt and is expected to make a downward turn in the near future. This will inevitably be reflected in all sectors of Finnish economic policy decision-making.

Ageing will pose a major challenge for the public finances. In the next few decades, ageing will cause increased public spending, amounting altogether to some 6% of GDP. The funds accumulated in the pension scheme cover only one third of these upward pressures. Can the remainder be met with increases in taxation? I doubt it. In fact, there is a need to reduce taxes further in the future.

Ageing will also cause frictions for Finnish business. What impact will the imminent wave of retirement, taking with it a significant number of owner-entrepreneurs, have on the future prospects of Finnish small and medium-sized enterprises? How will the development outlook for Finnish manufacturers be affected by the ageing of the industrial labour force?

Another easily distinguishable future trend is tightening international competition over the location of companies. In recent years, the international expansion of Finnish companies has continued at great pace. Not only has the ownership base of Finnish companies expanded abroad, but management and other key personnel, too, are increasingly coming from outside Finland. Finnish companies are distinctly less Finnish and increasingly a part of a global business world with operations in Finland. In such a world, the relocation of operations to places where costs can be kept to a minimum becomes the norm; appealing to 'patriotism' in this connection would not be of any advantage. A small, expensive, rapidly ageing and remote country is hardly in the best possible position when an international company is contemplating where to locate operations.

Up to this point, the internationalisation of companies has mainly taken place in terms of capital. We are now talking about the internationalisation of key personnel. Language skills, international education and the breaking down of cultural barriers are all gradually loosening the ties that have, until now, kept the Finnish labour force within Finland. Labour mobility is gradually changing from a theoretical possibility into a reality that shapes economic policy. The problem is that increased mobility affects specifically that part of the labour force whose contribution to the development of business is essential, meaning educated professionals and key personnel within companies. The competition over key personnel is naturally not only in terms of taxation, but also in terms of the services provided by a welfare society. However, considering the income distribution policy of a welfare state, this part of the labour force clearly occupies the role of payer; the services provided by a welfare state may not, for this group, be a satisfactory compensation for the tax burden required to finance these services.

What kind of prospects does Finland have for succeeding in such international competition? Finland has its strengths, but they are not geographic or

demographic. Political stability and security, a reliable legal system, a still solid infrastructure and well-educated population are some of the more obvious advantages. The highly educated sector of the labour force is *relatively inexpensive in Finland*, which can be a factor in attracting high technology businesses to the country. However, well-educated Finns may also be tempted to seek jobs outside Finland.

The logic underlying welfare state is changing. We can no longer presume that we first define the service levels and then adjust taxation accordingly to meet the resulting expenses. It is becoming increasingly clear that we are forced to go in the opposite direction. Two forces increasingly define the boundaries of the welfare state: internationally, as a result of international competition among companies, and domestically, on the basis of employment, and thereby, the financial base for public services. Within these constantly narrowing boundaries the expenses caused by population ageing account for an ever-increasing share.

What makes ageing an exceptional challenge for economic policy is the magnitude of its impact, as it can be assessed relatively exactly, for many decades to come. In contrast, shaping economic policy strategies that are appropriate with regard to the international competition affecting companies' decisions on the location of their operations is impeded by the number of uncertainties relating to any assessments made. No such crystal ball exists that would tell how powerful the consequences of competition over the location of companies will be and how widely they will be felt. How much should taxation be reduced or could the present level of taxation be maintained after all? No one is able to provide a definite answer.

The indisputable fact remains, however, that internationalisation will continue to cause increasing pressure. Speculations about the consequences of internationalisation are not limited to Finland, but are being made in all countries integrated into the global economy. As our competitor countries begin to turn these speculations into policy actions, the pressure to follow suit is also intensifying in Finland.

There is no need to dramatise the situation, however Finland has all the potential to succeed in this new phase of international competition. The keys to success are in our own hands.

Finland must be able to compensate for the adverse impact of ageing on the labour force by mak-

ing more efficient use of labour reserves. According to forecasts, Finland's employment rate seems to be settling at around 68% for a prolonged period. This is far from adequate. If employment remains at such a low rate, the entire financial base for the welfare state is certain to disintegrate. It is essential that the employment rate be raised significantly, and 75% can only be regarded as the minimum objective.

We also need to take active measures to safeguard Finland's position in the competition over the location of companies. Delayed action in this matter is but a waste of both time and opportunity. We need to respond to the threats affecting the competitive situation of companies before these threats cause permanent damage to our economy.

A number of measures have been put forward to achieve these goals, including reforms in taxation, labour markets, social security, education and entrepreneurship. But, above all, what we also need is consensus on the implementation of these measures. Maybe, over time, that too can be found.

9 October 2003

■ **Key words: Finance 2004,
economic policy, global economy**

Impact of the new capital adequacy framework for banks on the stability and efficiency of the financial system

by **Esa Jokivuolle**, Head of Division, ad int.
and **Jukka Vauhkonen**, Economist
Financial Markets Department
Bank of Finland

The Basel Committee on Banking Supervision is due to approve the new regulations governing the calculation and supervision of banks' capital adequacy¹ (Basel II) during the course of 2004. The reform itself is scheduled to take effect at the beginning of 2006. The new framework comprises three main components, or pillars. These deal with minimum capital requirements (Pillar 1), reinforcing the supervisory review process (Pillar 2) and improving market discipline (Pillar 3). In practice, Pillar 3 covers a variety of disclosure requirements. Based on the new framework, the EU will prepare a directive which, in addition to the banks, will also apply to investment firms.

The primary aim of the new capital adequacy framework is to ensure the stability and improve the efficiency of the financial system. The reform seeks to ensure more effectively than at present that banks have an adequate level of capital to support all their risks, while also encouraging them to develop and use better risk management techniques in the monitoring and management of risk. The further development and broader application of risk management and measurement systems will contribute to the more appropriate pricing of risks and the efficient targeting of finance. Evaluating the stability and efficiency effects of the new capital adequacy framework is, however, difficult, as the effects of the reform will be felt through a number of different channels. Evaluation is further hampered by the fact that the reform will probably affect the structure of the financial system and banks' behaviour in ways that are hard to anticipate.

One of the most important changes is the reform of the regulations governing the calculation of banks' minimum capital requirements based on credit-risk-weighted assets. The new regulations are based on

banks' internal credit ratings of their customers, or alternatively on external ratings provided by rating agencies. The weaker a customer's credit rating, the more the bank is required to have its own capital to cover the credit granted. The largest and most complex banks are in practice expected to apply internal credit ratings in their capital adequacy calculations, and the reform provides incentives for this.

The Basel Committee has published three studies to estimate the quantitative impacts of the new framework, the most recent of which was published in May 2003. Drawing on these studies, the Committee has sought to calibrate the rules for calculating minimum capital requirements so as to give banks an incentive to introduce advanced methods of risk measurement and to ensure the overall level of capital in the banking sector remains unchanged.² Thus, the quantitative impact studies have an important role to play in the preparation of the new capital adequacy framework. However, the studies conducted so far have not considered the new framework's possible implications for banks' behaviour or the stability and efficiency of the financial system.

The present article looks at possible conflicts between the stability and efficiency objectives of the reform, particularly from the perspective of cyclical impacts. Tying minimum capital requirements to credit ratings or to the market value of collateral could cause problems for stability by making lending more sensitive to the business cycle, thereby actually increasing the amplitude of cyclical fluctuations.³ This would run counter to the original aims of the reform process. In the present article, we examine this phe-

² The reform would naturally mean that the capital adequacy requirements on banks taking above-average risks would increase, while the requirements on those taking below-average risks would decrease.

³ The new international accounting standards (IAS) could have a similar effect.

¹ See Basel Committee on Banking Supervision (2003).

nomenon, factors that influence how strong the effect would be, and methods proposed to reduce it. We also consider whether the procyclical impact of minimum capital requirements is a more serious problem in Europe than in the United States, examine some special features of the Finnish financial system that have a key bearing on the issue, and explain the challenges the possibly procyclical impact of the new framework would present for supervision.

How can capital adequacy requirements reinforce the business cycle and market fluctuations?

Minimum capital requirements can increase the amplitude of cyclical fluctuations. As cyclical fluctuations represent one of the main causes of credit risk and loan losses in the banking sector, some critics believe the imposition of minimum capital requirements could undermine rather than support stability in the banking system.

The procyclical mechanism operates as follows. During periods of recession, banks may suffer a reduction in their capital assets as a result of loan losses caused by weakening financial performance in the business sector and growing unemployment. As the acquisition of fresh outside capital is often more difficult during a recession, the most effective method left to the banks for complying with minimum capital requirements is to reduce their lending. This in turn further feeds the recession by making it harder for businesses to finance their investments.

The existing minimum capital requirements can already reinforce cyclical trends in the manner outlined above, but there is concern that the new framework will strengthen this effect still further. This is because, within the new framework, banks' minimum capital requirements, being proportionately related to their credit risks, are tied to the credit ratings of their customers, and these typically deteriorate during periods of recession. Thus, during a recession, banks' capital adequacy comes under pressure from two directions at once: loan losses erode their capital assets at the same time as the minimum capital requirements tied to credit ratings increase. In this situation, the pressure to reduce lending could become stronger still. During booms, the mechanism operates in the opposite direction, reinforcing the upswing

as improving credit ratings and the resultant lower minimum capital requirements encourage increased lending.

The procyclical effect of the minimum capital requirements could also be transmitted via collateral values. During a recession, banks could seek to sustain their capital adequacy by selling risky assets. If several banks were to do this at the same time, the resulting asymmetric sales pressure in the marketplace could accelerate the decline in asset values, and by extension in collateral values as well. This could inhibit new lending, while under the proposed new framework the decline in collateral values would also increase the capital requirements on the banks.

Geographical comparison

Research data has not so far provided an unequivocal picture of how significant the procyclical impact of the minimum capital requirements are, or to what extent they increase the amplitude of market fluctuations. The evidence so far does not suggest the impact has been very great. However, as all the empirical evidence is historical, it is not possible to fully anticipate the impact of the new framework. The procyclical effects of the capital requirements may only become clearly visible after the introduction of Basel II.

Studies into the procyclical impacts of the present capital adequacy framework rely a great deal on experience in the United States, where the impact of capital requirements on economic activity has been slight. The main explanation put forward for this is a decline in the importance of banks as a source of corporate financing in the United States, where alternative forms of financing have eased the threat of a lending recession during periods of general recession in the economy.

Although there has been a strong growth in market-based financing in Europe at the expense of bank financing, the European corporate bond market is still less developed than the US market. Indeed, most European countries remain considerably more bank-oriented than the United States. Moreover, the new framework will apply to all banks and investment firms in the EU area, while the United States is intending to apply it only to the largest banks. For the above reasons, the cyclical impacts of the reform may be different east and west of the Atlantic.

Differences in the cyclical impacts of the reform could also come from the fact that European banks lag behind their US competitors in the process of securitisation, the use of credit derivatives and the secondary marketing of bank loans. These instruments have in recent years become important methods for managing credit risks, allowing banks to reduce or prevent the impact of capital requirements on their credit supply.

The capital adequacy requirements' possible cyclical impacts in Finland are influenced by at least the following factors. The Finnish economy has traditionally been rather sensitive to the business cycle, and all factors that could strengthen this sensitivity must therefore be taken seriously. However, the present Finnish banking system contains features that could perhaps alleviate the problem to some extent. Housing loans make a relatively large contribution to banks' balance sheets, while the contribution of corporate loans, which are more cyclically sensitive, is relatively small. Moreover, as the capital adequacy of small local banks has typically been very good, a greater degree of variation than before in capital requirements is unlikely to restrict their lending to their otherwise cyclically sensitive small and medium-sized customers.

All told, the procyclical impact of the new capital adequacy framework could be greater in Europe than in the United States due to the relatively bank-oriented and to some extent less developed nature of the European loan market. In view of this, authorities in the EU area would be advised to study very carefully ways to control this effect.

Are credit ratings too sensitive to the business cycle?

Some studies suggest the new capital adequacy framework could possibly increase the amplitude of cyclical fluctuations because credit ratings often underestimate credit risks during economic upswings and overestimate them during periods of recession. Opinions differ on this, however.

In essence, the difference of opinion is rooted in differing conceptions of the nature of cyclical fluctuations in the economy. Research indicates that most credit risk models used by credit institutions react to short-term changes and do not explicitly seek to dif-

ferentiate between temporary slumps in the business cycle and permanent structural changes. According to the view represented by these models, economic activity does not pursue a regular wave pattern in which boom follows slump at regular intervals; it is, instead, essentially random. Viewed thus, the best available forecast of the future development of the economy at any given time is that it will retain its existing level of activity. If this view of the nature of the business cycle is held to be correct, use of the credit risk models outlined above can be considered justified.

Briefly stated, the alternative view is that fluctuations in economic activity can be at least partly anticipated and that credit risks are generated during boom periods and realised in practice during recessions. Admittedly, the supporters of this view acknowledge that the timing, duration and amplitude of cyclical fluctuations are hard to forecast. The key idea in this way of thinking is, however, that excessive lending during at least some boom periods will overheat the expanding economy, deepening and lengthening the subsequent recession. It is, for example, possible that interbank competition and intrabank incentive systems can feed excessive lending particularly during boom periods, due, for instance, to overly optimistic internal credit ratings.

Studies show that certain macroeconomic and financial market-related indicators can anticipate cyclical fluctuations and increased vulnerability in the financial system. These indicators include major deviations from the normal level of exchange rates, strong expansions in credit and simultaneous rises in asset prices. To the extent that credit-rating models do not take sufficient account of these sorts of macro level risk factors and the time perspective applied is short, the resultant ratings can underestimate credit risks during boom periods and overestimate them during recessions, thereby increasing the amplitude of cyclical fluctuations.

If this view of the nature of cyclical fluctuations and the related inadequacy of credit-rating models is accepted, the tying of minimum capital requirements to credit ratings can occasionally be considered problematical. In such circumstances, the comprehensive evaluation of capital adequacy (Pillar 2) and other methods that could possibly alleviate this problem would have an important role to play. These methods are examined more closely below.

Is it possible to even out the impact of the new framework on credit supply?

In its most recent proposal, the Basel Committee has sought to alleviate the potential cyclical impacts of the new capital adequacy framework. In particular, the capital requirements for loans to small and medium-sized enterprises have been relaxed. However, this runs counter to the general objective of the reform as a whole, according to which capital adequacy requirements should more fully match identified risks. Thus, it is not possible to take relaxation of the requirements so far as to once again lose the correspondence between capital requirements and risk.

Another possible approach to controlling the cyclical impacts of the new capital adequacy framework would be to influence the approach taken in determining credit ratings. For example, credit rating agencies endeavour to rate their customers for a period equivalent to an entire business cycle. This means a company's credit rating is based on an assessment of its probability of default during a weak business cycle. In contrast, banks' internal rating models typically assess the customer's probability of default over a set period of time – normally one year. One way to reduce the cyclical sensitivity of credit ratings would be to encourage banks to rate their customers for a period covering an entire business cycle, as studies indicate credit rating agencies endeavour to do, thus encouraging the development and use of credit-risk models that take better account of cyclical factors. However, this brings us back to the debate over the possibility of forecasting cyclical fluctuations. There is a danger that, during a recession, ratings extending over the entire business cycle would not react quickly enough to, for example, structural problems in an individual sector. At the same time, during boom periods, it is advisable to exercise some caution in ratings, particularly in cases of a rapid rise in customers' level of debt.

One approach suggested for reducing cyclical impacts is the discretionary tying of requirements to the phase of the business cycle. According to its proponents, this sort of discretion could actually serve as an effective instrument of monetary policy. There are, however, a number of practical problems with this approach, and even analytically there are differing opinions over its possible effects. The discretionary application of minimum capital requirements

could send out a strong signal of the supervisory authority's views on the future direction of the economy, while at the same time the authority would have a simple means available for maintaining its credibility by deciding not to alter capital requirements to match fluctuations in the business cycle. Moreover, allowing the use of discretion in capital requirements could provide the wrong sort of incentive if the banks believe the standards would be applied flexibly whenever this was felt to be expedient.

The focus of debate has recently shifted onto how to encourage banks to maintain adequate capital buffers above the minimum capital requirements. Adequate buffers would mean that an increase in minimum capital requirements and loan losses during a recession would not necessarily restrict credit supply. The Basel Committee has stressed the importance of appropriate capital buffers and sufficiently conservative stress tests particularly as a safeguard against the cyclical impacts of internal credit-rating methods. It is also important to note that the size of banks' capital buffers significantly affects the total capital volume both of individual banks and of the banking system as a whole.

Recent studies show that banks' relative capital buffers can become rather large, particularly with the use of internal credit ratings. For example, a bank with a loan portfolio of companies with good credit ratings could be forced to maintain additional buffers equal to the size of its minimum capital requirements.⁴ Large capital buffers could pose a problem of inefficiency if the total capital of the banking system were to grow well beyond the level sought. The possible problems of instability (associated with minimum capital requirements that are on average too small) and inefficiency (associated with minimum capital requirements that are on average too large) will present a major challenge when calibrating the final requirements.

Conclusions and political implications

The reform of the capital adequacy framework for banks has implications for the stability and efficiency of the financial markets through a number of channels. The stability and efficiency impacts could be in

⁴ For example Peura – Jokivuolle (2003).

part contradictory, and not all the impacts on the behaviour of banks and the rest of the financial system have yet been analysed. The Basel Committee's impact studies are not sufficient to answer these questions – nor are they intended to be. More studies are required, both theoretical and empirical. For example, the European Commission is currently planning some broad analyses of this type, and there are also signs of the awakening of interest in academic circles. From the perspective of a level competitive playing field one interesting issue is the United States' intention to apply Basel II only to its largest international banks.

A particular focus of debate has been the procyclical impact of tying minimum capital requirements to credit ratings and their tendency to increase market fluctuations, as there is a fear this tendency will be reinforced by the proposed reform. This would be contrary to the stability objectives of the reform. However, it is worth asking if the procyclical impact of minimum capital requirements is in essence a problem at all, or is it simply an inevitable and natural by-product of the capital adequacy framework currently being updated? Is it perhaps merely that we cannot yet visualise or quantify all the positive impacts of the reform on the targeting and pricing of finance? In the final analysis these impacts could produce better real investment decisions that will in reality improve the ability of the economy to withstand cyclical pressures.

The ongoing debate has produced several alternative suggestions for reducing the variation in minimum capital requirements over the course of the business cycle. One of the alternatives we have considered here has been the role of additional capital buffers in countering the cyclical impacts of the capital adequacy framework. This alternative has also been underlined by the Basel Committee, particularly in connection with Pillar 2 of the new framework. According to the Committee, the primary responsibility for preparing for the variation in minimum capi-

tal requirements caused by the business cycle would lie with the banks themselves. Supervisors would, however, check that banks expand their buffers sufficiently during boom periods. In practice, it would then be important for supervisors to understand and allow the banks sufficient leeway to temporarily reduce the size of their buffers during a recession – this would, after all, be the reason they were originally expanded during the preceding boom in the first place.

In calibrating the capital adequacy requirements, the Basel Committee should also take sufficient account of how banks' incentives to establish additional buffers affect their capital adequacy. If calibration focuses only on the impact of the reform on banks' minimum capital requirements, there is a danger that the banking system will end up with a higher average level of capital than originally envisaged. This could, in turn, mean that the capital adequacy reform would restrict the financial intermediation capacity of the banking sector more than intended.

6 November 2003

■ **Key words: Basel II, credit ratings, credit supply, cyclical impacts**

Sources

Basel Committee on Banking Supervision (2003) *The New Basel Capital Accord: Third Consultative Paper* (www.bis.org/bcbs/bcbscp3.htm).

Jokivuolle, E. & Kauko K. (2001) *The New Basel Accord: some potential implications of the new standards for credit risk*. Bank of Finland Discussion Papers 2/2001.

Peura, S. & Jokivuolle E. (2003) *Simulation-based stress testing of banks' regulatory capital adequacy*. Bank of Finland Discussion Papers 4/2003.

Items

Second supplementary budget for 2003

Parliament approved the second supplementary budget for 2003 on 14 November. It shows a deficit of EUR 104 million. Tax revenue was estimated as increasing by EUR 222 million and other revenue as decreasing by EUR 28 million from the amounts originally budgeted for 2003. Expenditure estimates (excl. interest expenditure) were raised by a mere EUR 32 million. The supplementary budget also includes a change in budgeting practices concerning the booking of interest expenditure. Starting from this year, interest payments will be recorded on an accrual basis, when until now they have mostly been recorded on a cash basis. Excluding the one-off fiscal impact of this change, interest expenditure was estimated as decreasing by EUR 326 million from the amount originally budgeted for 2003.

First Finnish gold/silver EUR 50 coin

On 5 December 2003 numismatic art was commemorated in Finland by the issue of the first gold/silver EUR 50 coin. The new coin is part of the Finnish Art

and Design commemorative coin series, which began with the Sibelius gold coin issued in 1999. The invited competition to design the new coin was won by the sculptor Matti Peltokangas. The snowflake on the obverse and reverse of the coin depicts Finland's northern location, while the encircling pearl edging is derived from Finnish numismatic tradition. A similar edging was used in the gold markka coins issued in 1926.

The commemorative coin is the first ever euro-denominated bi-metal gold/silver coin. It measures 27.25 mm in diameter and weighs 13.2 grams. The coin centre is 75% gold and the outer ring 92.5% silver. The mintage will be maximum 20,000 coins. Only a proof version will be issued at the price of EUR 285.



Key interest rates

The main refinancing operations are the principal monetary policy instrument used by the Eurosystem¹. Changes in the interest rate applied in the main refinancing operations signal the stance of Eurosystem monetary policy and have a major impact on the shortest money market rates. From the start of 1999 to June 2000 the main refinancing operations of the Eurosystem were conducted via fixed rate tenders. At its meeting on 8 June 2000 the ECB Governing Council decided that, starting with the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders, using the multiple rate auction procedure. The Governing Council also decided to set a minimum bid rate for these operations. The minimum bid rate was initially 4.25%, the same level as applied in the previous fixed rate tender operations. Since then, the minimum bid rate has been changed nine times. Effective 6 June 2003, the minimum bid rate is 2.00%. In the new procedure, the minimum bid rate signals the monetary policy stance, which previously was indicated by the rate applied to fixed rate tenders.

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

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

Effective 6 June 2003, the interest rate on the Eurosystem marginal lending facility is 3.00% and the overnight interest rate on the deposit facility 1.00%.

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

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

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

Standing facilities

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

Minimum reserve system

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

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

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

Counterparties to monetary policy operations

Credit institutions subject to Eurosystem minimum reserve requirements may, in general, access Eurosystem standing facilities and participate in the Eurosystem's main refinancing operations and longer-term refinancing operations. The Eurosystem has limited the group of counterparties for fine-tuning operations 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 such marketable assets and non-marketable instruments that are of particular importance for national financial markets and banking systems

and for which eligibility criteria are established by the national central banks and approved by the ECB. Both tier one and tier two assets may be used as collateral for Eurosystem monetary policy operations. A list of eligible assets is available on the ECB’s website (<https://mfi-assets.ecb.int>). More detailed information on Eurosystem monetary policy instruments is posted on the Bank of Finland’s website (http://www.bof.fi/eng/2_rahapolitiikka/index.stm).

Recent Bank of Finland research publications

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

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

Publications series

Series A

ISSN 1238-1683, print

ISSN 1456-5943, online

A:105

Heikki Koskenkylä (ed.) **Finnish financial markets 2002** (Suomen rahoitusmarkkinat 2002). Compilation. 362 p. ISBN 952-462-090-1, print; ISBN 952-462-091-X, online.

Discussion Papers

ISSN 0785-3572 (print)

ISSN 1456-6184 (online)

21/2003

David T. Llewellyn – David G. Mayes **The role of market discipline in handling problem banks.** 34 p. ISBN 952-462-077-4, print; ISBN 952-462-078-2, online.

22/2003

George W. Evans – Seppo Honkapohja **Policy interaction, expectations and the liquidity trap.** 32 p. ISBN 952-462-079-0, print; ISBN 952-462-080-4, online.

23/2003

Harry Leinonen – Kimmo Soramäki **Simulating interbank payment and securities settlement mechanisms with the BoF-PSS2 simulator.** 55 p. ISBN 952-462-082-0, print; ISBN 952-462-083-9, online.

24/2003

Marja-Liisa Halko **Buffer funding of unemployment insurance in a dynamic labour union model.** 28 p. ISBN 952-462-084-7, print; ISBN 952-462-085-5, online.

25/2003

Ari Hyytinen – Tuomas Takalo **Preventing systemic crises through bank transparency.** 25 p. ISBN 952-462-086-3, print; ISBN 952-462-087-1, online.

26/2003

Karlo Kauko **Interlinking securities settlement systems: A strategic commitment?** 38 p. ISBN 952-462-088-X, print; ISBN 952-462-089-8, online.

27/2003

Guido Ascari **Staggered prices and trend inflation: some nuisances.** 41 p. ISBN 952-462-092-8, print; ISBN 952-462-093-6, online.

28/2003

Jukka Vauhkonen **Are adverse selection models of debt robust to changes in market structure?** 29 p. ISBN 952-462-094-4, print; ISBN 952-462-095-2, online.

29/2003

Luis H. R. Alvarez – Erkki Koskela **Irreversible investment under interest rate variability: new results.** 27 p. ISBN 952-462-096-0, print; ISBN 952-462-097-9, online.

30/2003

Anssi Rantala **Adaptive learning and multiple equilibria in a natural rate monetary model with unemployment persistence.** 25 p. ISBN 952-462-098-7, print; ISBN 952-462-099-5, online.

31/2003

Risto Herrala **The rigidity bias.** 29 p. ISBN 952-462-100-2, print; ISBN 952-462-101-0, online.

BOFIT Discussion Papers

ISSN 1456-4564 (print)

ISSN 1456-5889 (online)

11/2003

Jörg Rahn **Bilateral equilibrium exchange rates of EU accession countries against the euro.** 29 p. ISBN 951-686-870-3, print; ISBN 951-686-871-1, online.

12/2003

Toni Riiipinen **Energy market liberalisation in the FSU – simulations with the GTAP model.** 37 p. ISBN 951-686-872-X, print; ISBN 951-686-873-8, online.

13/2003

Natalia V. Smirnova **Job search behavior of unemployed in Russia.** 32 p. ISBN 951-686-874-6, print; ISBN 951-686-875-4, online.

Abstracts

Series A

Finnish financial markets 2002 (Suomen rahoitusmarkkinat 2002)

Heikki Koskenkylä (ed.)

A:105

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

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

Competition has tightened, while the borders between different sectors – banking, securities markets, insurance – have narrowed.

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

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

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

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

Discussion papers

The role of market discipline in handling problem banks

David T. Llewellyn – David G. Mayes

21/2003

- Key words: market discipline, banks, prompt corrective action

This paper considers the conditions that are necessary for market discipline to complement prompt corrective action (PCA) by the authorities in handling problem banks. We initially consider precisely what market discipline means in this context, who exercises it and the preconditions that are necessary for it to operate effectively. We explore the incentives that are necessary for PCA and market discipline to reinforce rather than cancel each other and in particular consider the limits to market discipline in this context from corporate governance and from difficulties in valuation. While our analysis is primarily aimed at advanced countries, we also examine problems in emerging markets and how deposit insurance arrangements might conflict with the aims of both PCA and market discipline.

Policy interaction, expectations and the liquidity trap

George W. Evans – Seppo Honkapohja

22/2003

- Key words: stability of equilibria, fiscal and monetary policy, interest rate and money supply rules

In this paper we consider inflation and government debt dynamics when monetary policy employs a global interest rate rule and private agents' forecasts using adaptive learning. Because of the zero lower bound on interest rates, active interest rate rules are known to imply the existence of a second, low inflation steady state, below the target inflation rate. Under adaptive learning dynamics we find the additional possibility of a liquidity trap, in which the economy slips below this low inflation steady state and is driven to an even lower inflation floor which, in turn, is supported by a switch to an aggressive money supply

rule. Fiscal policy alone cannot push the economy out of the liquidity trap. However, raising the threshold at which the money supply rule is employed can dislodge the economy from the liquidity trap and ensure a return to the target equilibrium.

Simulating interbank payment and securities settlement mechanisms with the BoF-PSS2 simulator

Harry Leinonen – Kimmo Soramäki

23/2003

- Key words: simulations, simulator, payment systems, clearing/settlement, liquidity

The simulation technique provides a new means for analysing complex interdependencies in payment and securities settlement processing. The Bank of Finland has developed a payment and settlement system simulator (BoF-PSS2) that can be used for constructing simulation models of payment and securities settlement systems.

This paper describes the main elements of payment and settlement systems (system structures, interdependencies, processing steps, liquidity consumption, cost and risk dimensions) and how these can be treated in simulation studies. It also gives examples on how these elements have been incorporated in the simulator, as well as an overview of the structure and the features of the BoF-PSS2 simulator.

Buffer funding of unemployment insurance in a dynamic labour union model

Marja-Liisa Halko

24/2003

- Key words: unemployment insurance, unions, stabilisation, buffer funding

In this paper we study the implications of the unemployment insurance (UI) financing system on wage levels and employment when labour markets are unionised and the revenues of the firms are stochastic. We use the basic monopoly union approach of wage and employment determination and assume that unemployment benefits are financed by employees' UI

contributions to the union's UI fund and by the government's tax revenue. The main focus of this paper is on the effects of UI buffer funding on employment fluctuations. We show that, compared with the pay-as-you-go financing system, buffer funding stabilises the economy by decreasing employment fluctuations where wages are flexible. If wages are rigid, buffer funding stabilises net wage variations, but has hardly any effect on employment fluctuations.

Preventing systemic crises through bank transparency

Ari Hyytinen – Tuomas Takalo
25/2003

- Key words: bank transparency, financial stability, disclosure regulation

The banking system is known to be vulnerable to self-fulfilling crises that are caused by depositors' coordination failure. We show that transparency regulation may prevent certain types of systemic crises by eliminating the possibility of the coordination failure.

Interlinking securities settlement systems: A strategic commitment?

Karlo Kauko
26/2003

- Key words: securities settlement systems, central securities depositories, network industries, access pricing

Central securities depositories (CSDs) have opened mutual links, but most of them are seldom used. Why are idle links established? By allowing a foreign CSD to offer services through the link the domestic CSD invites competition. The domestic CSD can determine the cost efficiency of the rival by charging suitable fees, and prevent it from becoming more competitive than the domestic CSD. By inviting the competitor the domestic CSD can commit itself not to charge monopoly fees for secondary market services. This enables the domestic CSD to charge high fees in the primary market without violating investors' participation constraints.

Staggered prices and trend inflation: some nuisances

Guido Ascari
27/2003

- Key words: inflation, staggered price/wages

Most of the papers in the sticky-price literature are based on a log-linearization around the zero inflation steady state, a simplifying but counterfactual assumption. This paper shows that when trend inflation is considered, both the long-run and the short-run properties of DGE models based on the Calvo staggered price model change dramatically. It follows that results obtained by models log-linearized around a zero inflation steady state are quite misleading. Furthermore, the same is not true for models based on the Taylor staggered price model, which is robust to changes in trend inflation. As a conclusion, the Taylor model is to be preferred, unless one is willing to index nominal variables.

Are adverse selection models of debt robust to changes in market structure?

Jukka Vauhkonen
28/2003

- Key words: security design, adverse selection, monotonic contracts, monotone likelihood ratio, first-order stochastic dominance

Many adverse selection models of standard one-period debt contracts are based on the following seemingly innocuous assumptions. First, entrepreneurs have private information about the quality of their return distributions. Second, return distributions are ordered by the monotone likelihood-ratio property. Third, financiers' payoff functions are restricted to be monotonically non-decreasing in firm profits. Fourth, financial markets are competitive. We argue that debt is not an optimal contract in these models if there is only one (monopoly) financier rather than an infinite number of competitive financiers.

Irreversible investment under interest rate variability: new results

Luis H. R. Alvarez – Erkki Koskela
29/2003

■ Key words: irreversible investment, variable interest rates, free boundary problems

The current literature on irreversible investment decisions usually makes the assumption of a constant interest rate. We study the impact of interest rate and revenue variability on the decision to carry out an irreversible investment project. Given the generality of the valuation problem considered, we first provide a thorough mathematical characterization of the two-dimensional optimal stopping problem and develop some new results. We establish that interest rate variability has a profound decelerating or accelerating impact on investment demand depending on whether the current interest rate is below or above the long run steady state interest rate, and that its quantitative size may be very large. Allowing for interest rate uncertainty is shown to decelerate rational investment demand by raising both the required exercise premium of the irreversible investment opportunity and the value of waiting. Finally, we demonstrate that increased revenue volatility strengthens the negative impact of interest rate uncertainty and vice versa.

Adaptive learning and multiple equilibria in a natural rate monetary model with unemployment persistence

Anssi Rantala
30/2003

■ Key words: adaptive learning, monetary policy, multiple equilibria, persistence

This paper demonstrates that the adaptive learning approach to modelling private sector expectations can be used as an equilibrium selection mechanism in a natural-rate monetary model with unemployment persistence. In particular, it is shown that only one of the two rational expectations equilibria is stable under least-squares learning, and that it is always the low-inflation equilibrium with intuitive comparative statics properties that is the learnable equilibrium.

Hence, this paper provides a basic theoretical justification for focusing on the low-inflation equilibrium. Earlier contributions, in which the high-inflation equilibrium was ignored, mainly because of its unpleasant characteristics, are not theoretically satisfactory.

The rigidity bias

Risto Herrala
31/2003

■ Key words: liquidity, central banking, monetary system

We study the basic economic problem of choice between long-term and short-term commitments under a general characterization of uncertainty (aggregate uncertainty). When contingencies are contractible, a perfect market of Arrow-Debreu contingent claims implements the social optimum. When contingencies are not contractible, long-term commitments receive too much weight in individual portfolios. The economy as a whole is too rigid during periods of high aggregate shocks. The model links a rigidity bias with the operation of the price mechanism and the monetary system.

BOFit Discussion papers

Bilateral equilibrium exchange rates of EU accession countries against the euro

Jörg Rahn
11/2003

■ Key words: real exchange rates, equilibrium exchange rates, transition economies, panel cointegration

We apply BEER and PEER approaches to calculate real equilibrium exchange rates for five EU accession countries in central and east Europe. Bilateral nominal equilibrium exchange rates against the euro are obtained through algebraic transformation of the results. Panel cointegration techniques are used to check the adequacy of the empirical model. The results reveal substantial overvaluations of the real exchange rate in several EU accession countries.

Overvaluation is even higher when these exchange rates are expressed in nominal terms against the euro.

Energy market liberalisation in the FSU – simulations with the GTAP model

Toni Riiipinen
12/2003

- Key words: energy, computable general equilibrium models, former Soviet Union, welfare analysis

This work considers effects of energy market liberalisation in the countries of the former Soviet Union (FSU). Our analysis is based on a computable general equilibrium (CGE) model called the Global Trade Analysis Project (GTAP). This specialised model makes it possible to evaluate effects in a general equilibrium set-up. Energy market reforms are widely discussed in the literature, but the use of CGE models has been limited. In the main part of the paper, we perform two experiments. The first is a benchmark liberalisation experiment in which all government taxes and subsidies are removed. The second is an attempt to simulate an increase in the export capacity of energy commodities into the European markets. In general, we find that liberalisation of FSU energy markets would increase welfare in the EU countries, while in the FSU welfare would decrease. This result is mainly due to the terms-of-trade effect, as export prices of FSU countries decrease.

Job search behavior of unemployed in Russia

Natalia V. Smirnova
13/2003

- Key words: Russia, transition, job search, search intensity, logit

This paper explores the determinants of job search behavior, search intensity and choices of search methods of the unemployed workers in transitional Russia. We use pooled data from rounds 5-9 of the Russia Longitudinal Monitoring Survey (RLMS) to estimate the effects of socio-economic factors on the choices workers make while looking for a job. The results show that women are significantly less likely than men to engage in job searches, lag significantly behind men in search intensity, and significantly differ from men in their search strategies. The job search behavior of workers living in metropolitan areas of Moscow and St. Petersburg differs substantially from the behavior of workers living elsewhere in Russia. The most frequently used search strategy in Russia, as in other countries, is contacting friends and relatives for job leads.

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 5,194,901 (31 December 2002) and an average population density of 17 per square kilometre. The largest towns are Helsinki, the capital, with 559,716 inhabitants, Espoo 221,597, Tampere 199,823, Vantaa 181,890 and Turku 174,618.

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 2003, the seats of the various parties in Parliament are distributed as follows:

Centre Party 55; Social Democratic Party 53; National Coalition Party 40; Left Alliance 19; Green League 14; Swedish People's Party 9; Christian League 7; True Finns 3.

Of the 18 ministerial posts in the present Government appointed in April 2003, 8 are held by the Centre Party, 8 by the Social Democratic Party and 2 the Swed-

ish People's Party. The Prime Minister is Mr Matti Vanhanen of the Centre Party.

Finland is divided into 446 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 121 billion in basic values in 2002, 1.6% was generated in agriculture, hunting and fishing, 2.1% in forestry, 26.3% in industry, 5.5% in construction, 11.8% in trade, restaurants and hotels, 10.9% in transport and communications, 3.8% in finance and insurance, 19.7% in other private services and 18.3% by producers of government services. Of total employment of 2.3 million persons in 2002, 5.4% were engaged in primary production, 26.9% in industry and construction and 67.8% in services.

In 2002 expenditure on the gross domestic product in purchasers' values amounted to EUR 140 billion and was distributed as follows: net exports 8.6% (exports 38.7%,

imports -30.1%), gross fixed capital formation 18.9%, private consumption 50.9% and government consumption 21.7%. Finland's tax ratio (gross taxes including compulsory employment pension contributions relative to GDP) was 45.8%.

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 1.4% in 1990-99. Finland's GDP per capita in 2002 was USD 25,401.

Foreign trade. EU countries absorb the bulk of Finnish goods exports. In 1998-2002 their average share was 55.4%. Over the same period, Finnish exports to other European countries (including Russia) accounted for 18.4% and to the rest of the world for 26.2%. During the same period the regional distribution of Finnish goods imports was quite similar to that of exports: EU countries accounted for 56.6%, other European countries for 19.4% and the rest of the world for 23.9%.

In 2002 the share of forest industry products in total goods exports was 26.3%, the share of metal and electrical products 54.5% and the share of other goods 19.1%. Raw materials and intermediate goods and energy together accounted for 50.8% of goods imports, capital goods for 22.1% and durable and non-durable consumer goods for 27.1%.

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

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

Finance and banking

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

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

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

Financial markets. The total stock of domestic credit amounted to EUR 125.7 billion at end-September 2003 and was broken down by lender group as follows: deposit banks 67%; insurance companies 2%; pension insurance institutions 11%; other credit institutions 11%; central and local governments and social security funds 9%.

In the money market, the total value of instruments outstanding was about EUR 26.9 billion at end-September 2003; bank certificates of deposit accounted for 60.1% of the total and Treasury bills, commercial paper and local authority paper for the rest.

At end-September 2003 there were 104 companies on the main list, 28 on the investors' list and 14 on the NM list of the HEX. At end-March 2003 total market capitalisation was EUR 145.0 billion for the main list, EUR 0.5 billion for the investors' list and EUR 0.5 billion for the NM list. Domestic bonds and debentures in circulation at end-March 2003 amounted to EUR 55.8 billion; government bonds accounted for 85% of the total. Share turnover on the HEX amounted to EUR 108.0 billion in January-September 2003.



VISITING SCHOLARS PROGRAMME

BANK OF FINLAND

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

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

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

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

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

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

Persons interested in applying are invited to send

- a brief research proposal concerning either of the two areas
- a CV specifying the applicant's academic and research background, with the names of two or three referees

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

Inquiries: Juha Tarkka, Head of Research Department,
 phone +358 9 183 2581, email Juha.Tarkka@bof.fi or
 Jouko Vilmunen, Research Supervisor, Research Department
 phone +358 9 183 2594, email Jouko.Vilmunen@bof.fi or
 Tuomas Takalo, Research Supervisor, Research Department,
 phone +358 9 183 2370, email Tuomas.Takalo@bof.fi

Balance sheet of the Bank of Finland, EUR million

		2003		
	29.8.	26.9.	31.10.	28.11.
Assets				
I Gold and gold receivables	476	476	520	520
2 Claims on non-euro area residents denominated in foreign currency	8,404	8,273	8,240	8,163
2.1 Receivables from the IMF	854	854	809	811
2.2 Balances with banks and security investments, external loans and other external assets	7,550	7,419	7,431	7,352
3 Claims on euro area residents denominated in foreign currency	671	797	740	806
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	–	–	–	–
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	2,233	2,564	891	1,627
5.1 Main refinancing operations	1,795	2,126	803	1,627
5.2 Longer-term refinancing operations	438	438	89	–
5.3 Fine-tuning reverse operations	–	–	–	–
5.4 Structural reverse operations	–	–	–	–
5.5 Marginal lending facility	–	–	–	–
5.6 Credits related to margin calls	–	–	–	–
6 Other claims on euro area credit institutions denominated in euro	4	4	4	1
7 Securities of euro area residents denominated in euro	–	–	–	–
8 General government debt denominated in euro	0	0	0	0
9 Intra-Eurosystem claims	3,764	3,764	3,753	3,764
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	–	–	–	–
9.4 Claims related to TARGET and correspondent accounts (net)	–	–	–	–
9.5 Claims related to other operational requirements within the Eurosystem	2,996	2,996	2,985	2,996
10 Other assets	1,199	1,190	1,259	1,233
Total assets	16,753	17,070	15,408	16,115

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

		2003			
		29.8.	26.9.	31.10.	28.11.
Liabilities					
1	Banknotes in circulation¹	6,196	6,246	6,322	6,431
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	2,670	3 204	2,612	2,401
2.1	Current accounts (covering the minimum reserve system)	2,670	3 203	2,611	2,401
2.2	Deposit facility	0	1	1	0
2.3	Fixed-term deposits	–	–	–	–
2.4	Fine-tuning reverse operations	–	–	–	–
2.5	Deposits related to margin calls	–	–	–	–
3	Other liabilities to euro area credit institutions denominated in euro	–	–	–	–
4	Liabilities to other euro area residents denominated in euro	13	2	1	1
4.1	General government	–	–	–	–
4.2	Other liabilities	13	2	1	1
5	Liabilities to non-euro area residents denominated in euro	1	1	1	1
6	Liabilities to euro area residents denominated in foreign currency	–2	0	–	–
7	Liabilities to non-euro area residents denominated in foreign currency	17	0	16	54
7.1	Deposits' balances and other liabilities	17	0	16	54
7.2	Liabilities arising from the credit facility under the ERM II	–	–	–	–
8	Counterpart of special drawing rights allocated by the IMF	175	175	175	175
9	Intra-Eurosystem liabilities	2,171	1,920	722	1,463
9.1	Liabilities related to promissory notes backing the issuance of ECB debt certificates	–	–	–	–
9.2	Liabilities related to TARGET and correspondent accounts (net)	2,171	1,920	722	1,463
9.3	Liabilities related to other operational requirements within the Eurosystem	–	–	–	–
10	Other liabilities	363	372	403	433
11	Revaluation account	643	643	651	651
12	Capital and reserves	4 506	4,506	4,506	4,506
12.1	Primary capital	841	841	841	841
12.2	Reserve fund	545	545	545	545
12.3	Pension provisions	352	352	352	352
12.4	Other provisions	2,768	2,768	2,768	2,768
Total liabilities		16,753	17,070	15,408	16,115

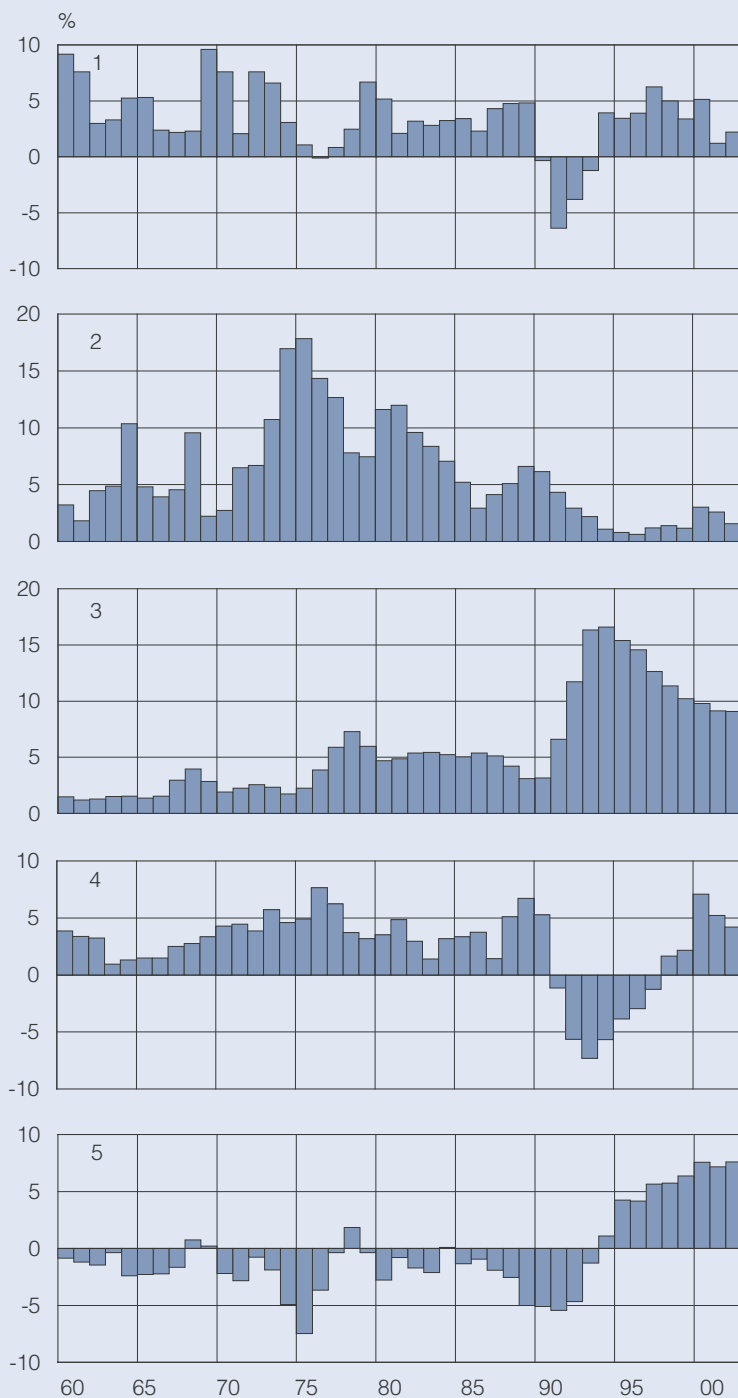
¹According to the accounting regime chosen by the Eurosystem on the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The counterpart of this adjustment is disclosed under 'Other claims within the Eurosystem'. The remaining 92% of the value of the euro banknotes in circulation are allocated to the NCBs on a monthly basis

too, whereby each NCB shows in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to the NCB according to the aforementioned accounting regime, and the value of euro banknotes put into circulation, is also disclosed under 'Other claims/debts within the Eurosystem'.

Charts

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

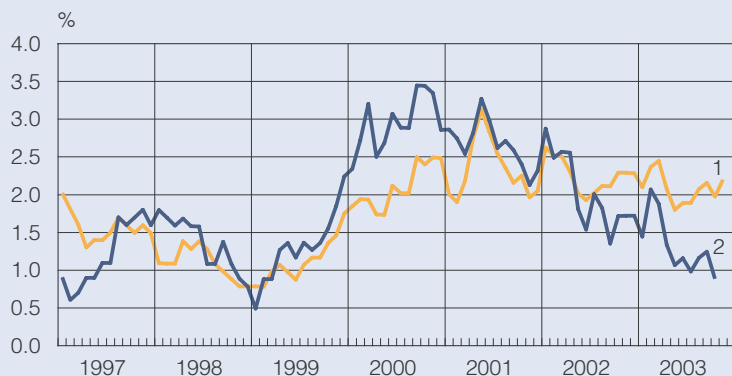
1. Finland: key economic indicators



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

Sources:
 Statistics Finland and
 Bank of Finland.

2. Price stability in the euro area and Finland

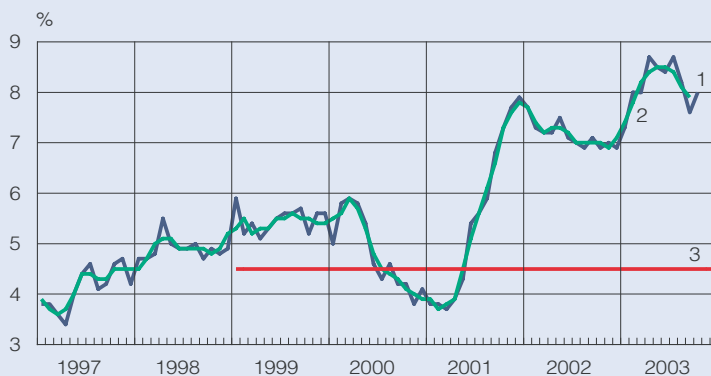


Harmonised index of consumer prices, 12-month change, %

1. Euro area
2. Finland

Sources:
Eurostat and Statistics Finland.

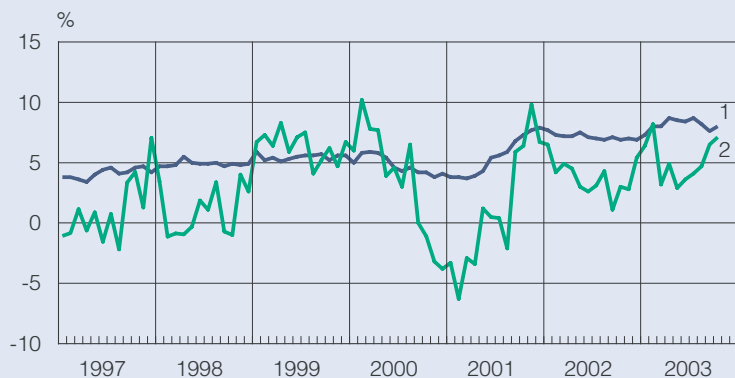
3. Monetary aggregates for the euro area



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

Source:
European Central Bank.

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

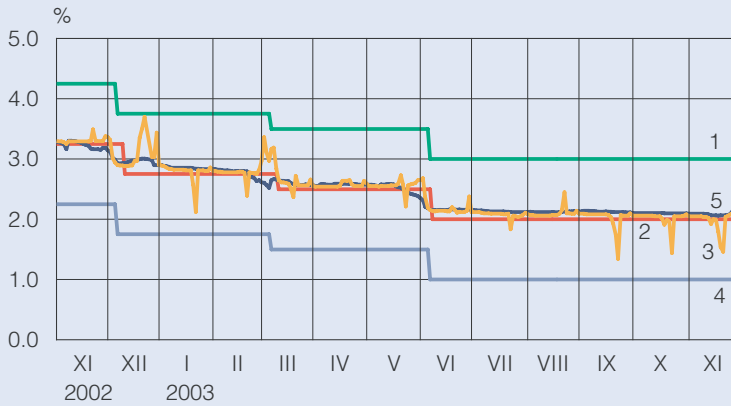


12-month change, %

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

Sources:
European Central Bank and Bank of Finland.

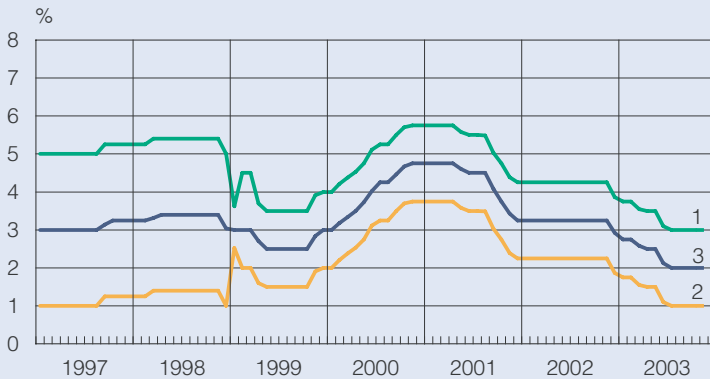
5. Eurosystem interest rates and money market rates



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

Sources:
European Central Bank and Reuters.

6. Eurosystem (Bank of Finland) interest rates

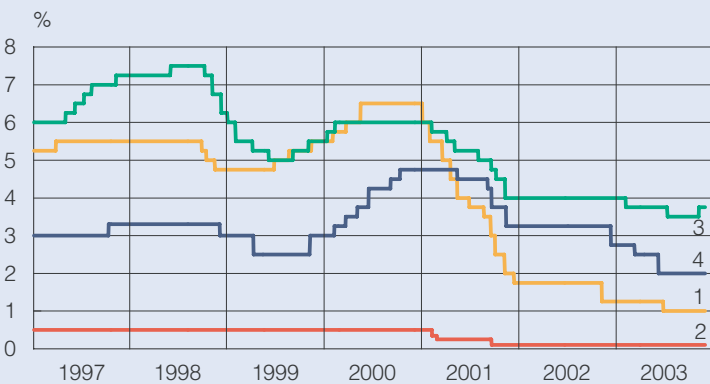


Bank of Finland interest rates until end-1998

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

Source:
European Central Bank.

7. Official interest rates



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

Source: Bloomberg.

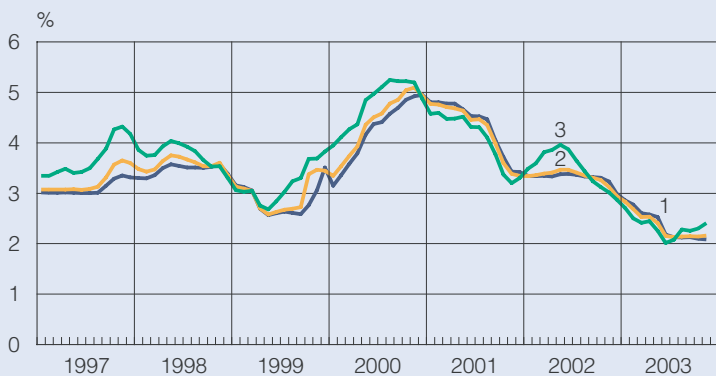
8. Euribor rates, daily values



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

Source: Reuters.

9. Euribor rates, monthly values

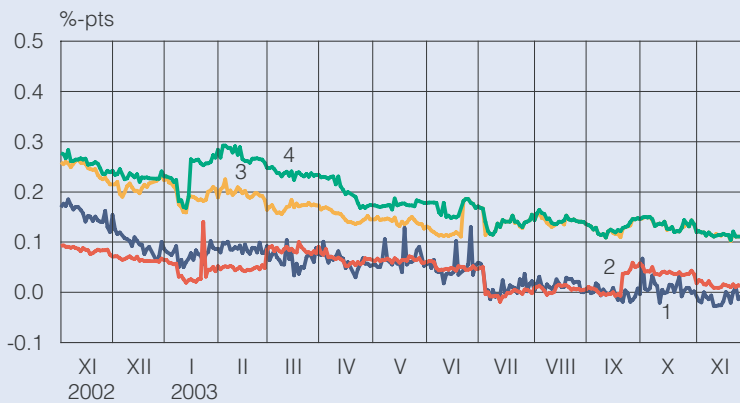


Helibor rates until end-1998

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

Source: Reuters.

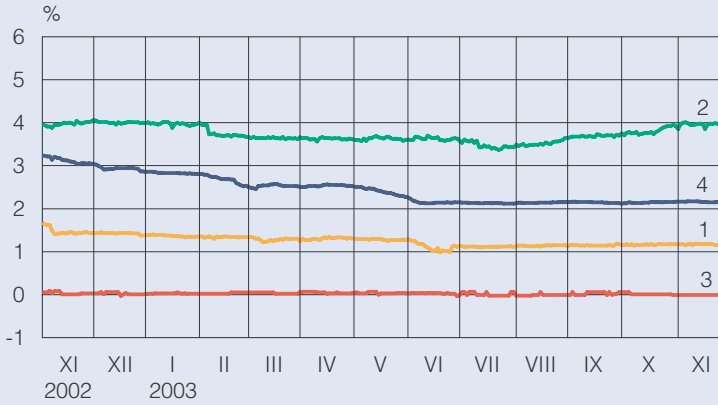
10. Differentials between ten-year yields for Germany and selected euro area countries



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

Source: Reuters.

11. International three-month interest rates, daily values

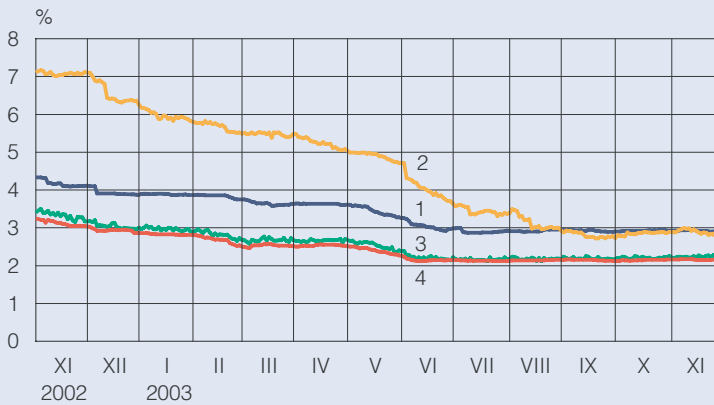


Interbank rates

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

Source: Reuters.

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

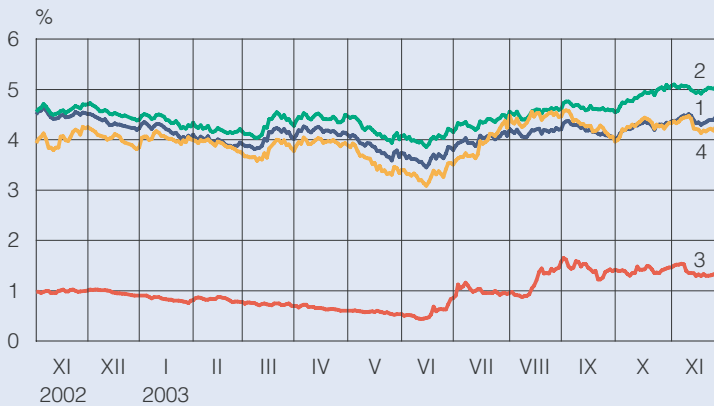


Interbank rates

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

Source: Reuters.

13. International long-term interest rates, daily values

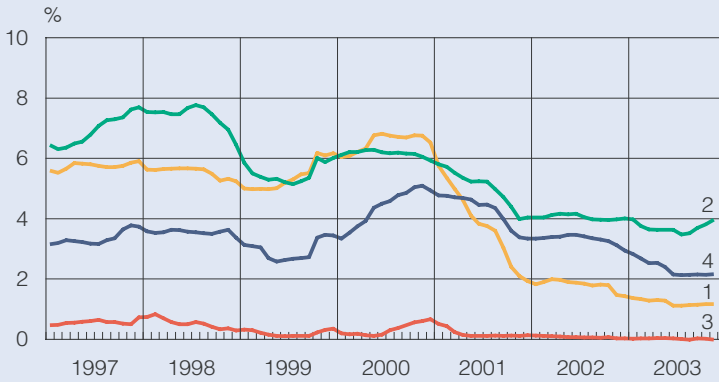


Yields on ten-year government bonds

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

Source: Reuters.

14. International three-month interest rates, monthly values

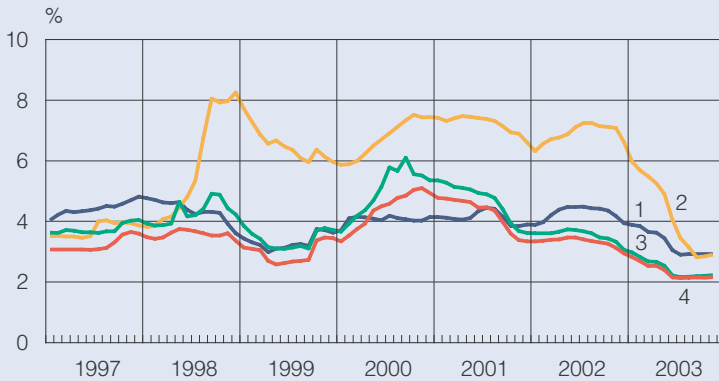


Interbank rates

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

Source: Reuters.

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

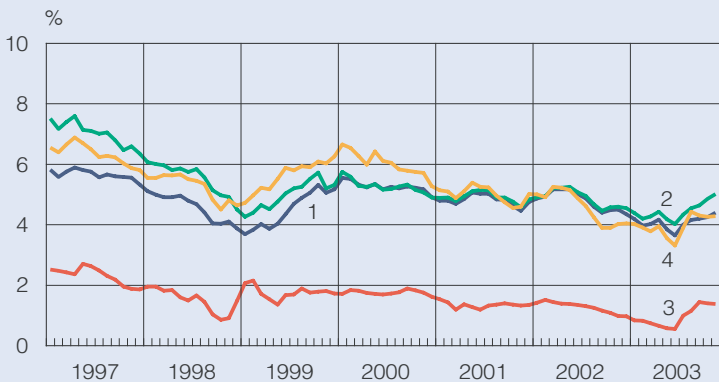


Interbank rates

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

Source: Reuters.

16. International long-term interest rates, monthly values

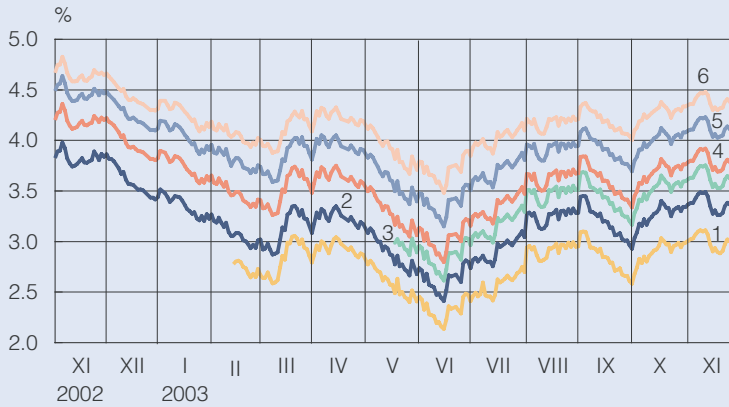


Yields on ten-year government bonds

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

Source: Reuters.

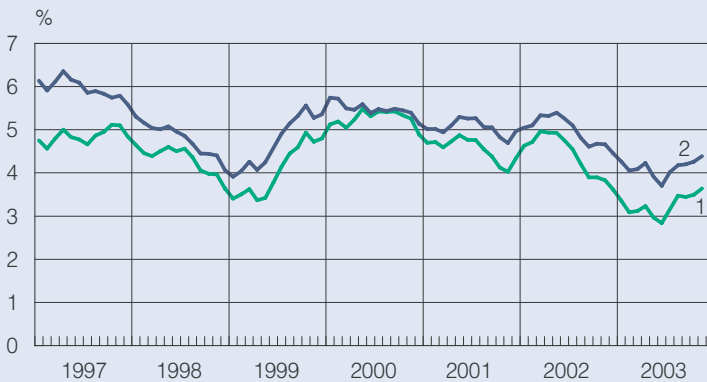
17. Yields on Finnish benchmark government bonds



1. Bond maturing on 4 July 2006, 2.75%
2. Bond maturing on 4 July 2007, 5%
3. Bond maturing on 4 July 2008, 3%
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.

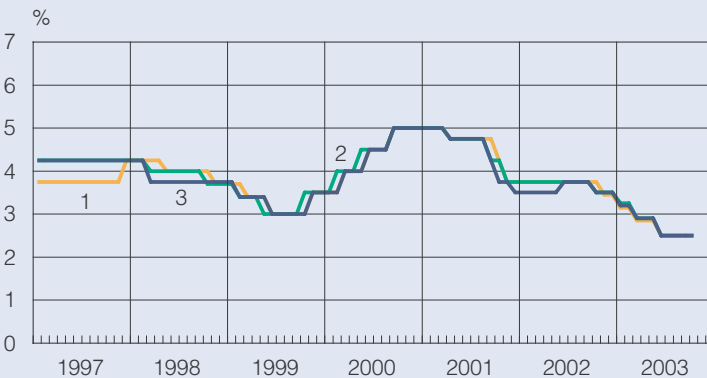
18. Yields on five and ten-year Finnish government bonds



1. 5 years
2. 10 years

Source: Reuters.

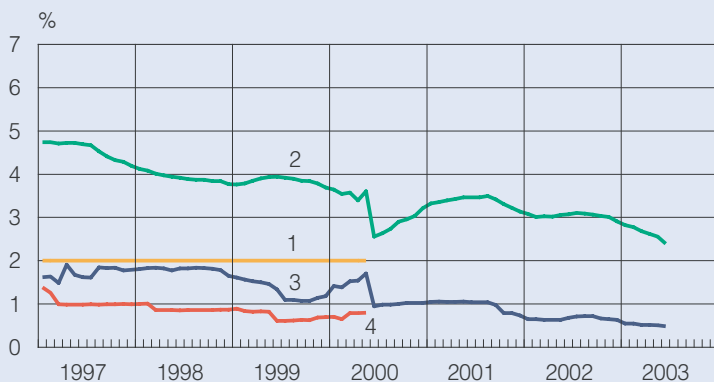
19. Bank reference rates in Finland



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

Source: Banks.

20. Bank deposit rates in Finland



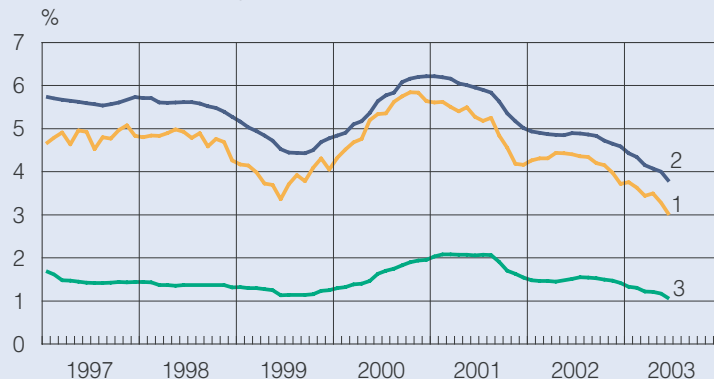
Data collection ended 30 June 2003.

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

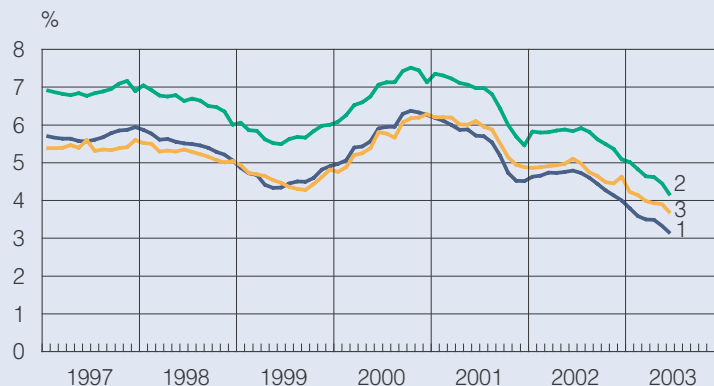


Data collection ended 30 June 2003. Charts based on the new harmonised data collection for the euro area will be published for the first time in issue 1/2004 of the Bulletin.

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

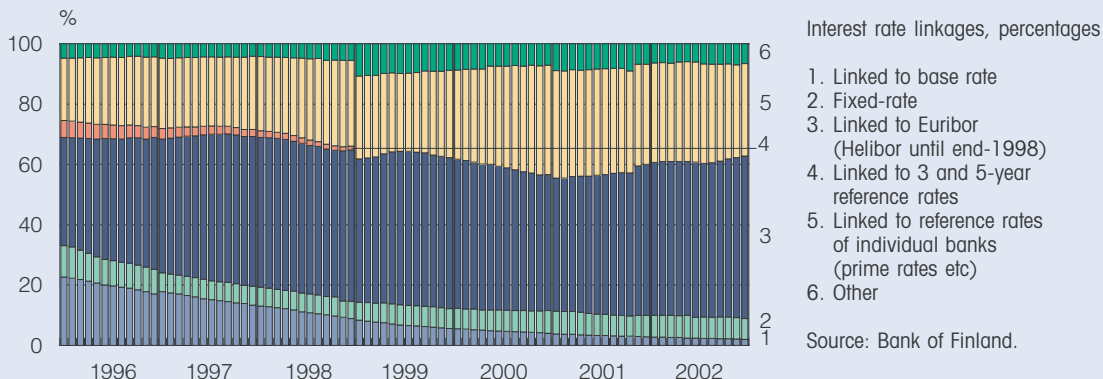


Data collection ended 30 June 2003. Charts based on the new harmonised data collection for the euro area will be published for the first time in issue 1/2004 of the Bulletin.

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

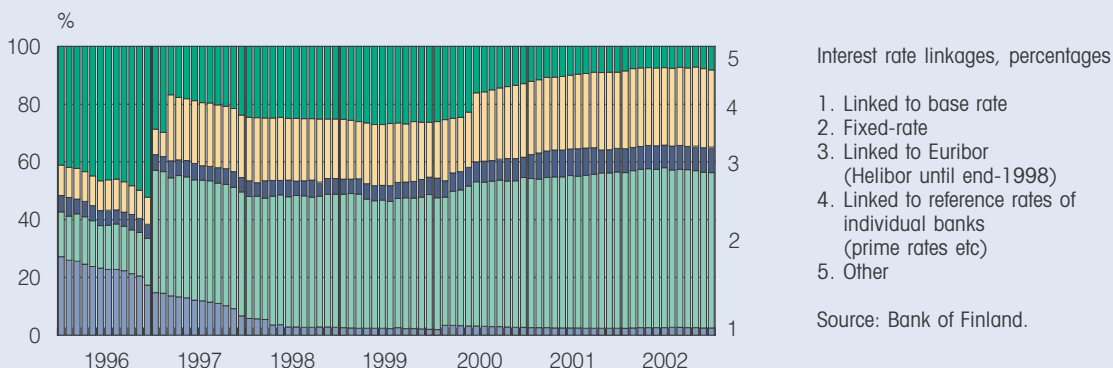
Source: Bank of Finland.

23. Stock of bank lending in Finland



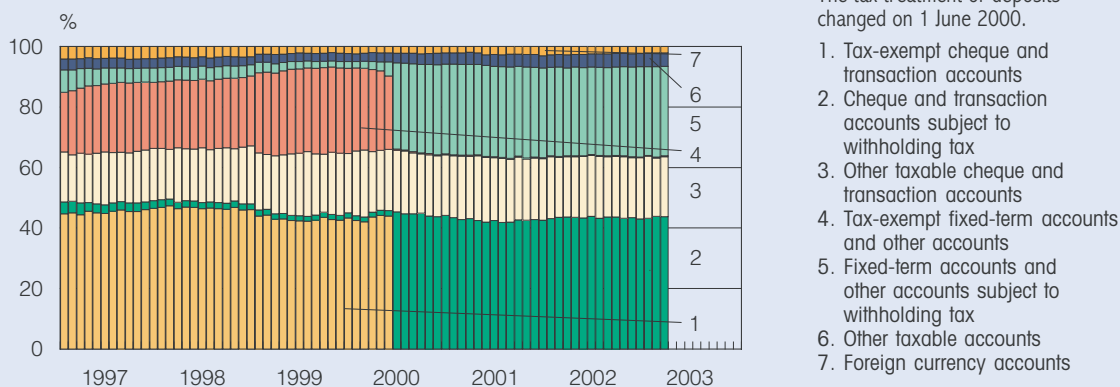
Data collection ended 31 December 2002. Charts based on the new harmonised data collection for the euro area will be published for the first time in issue 1/2004 of the Bulletin.

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



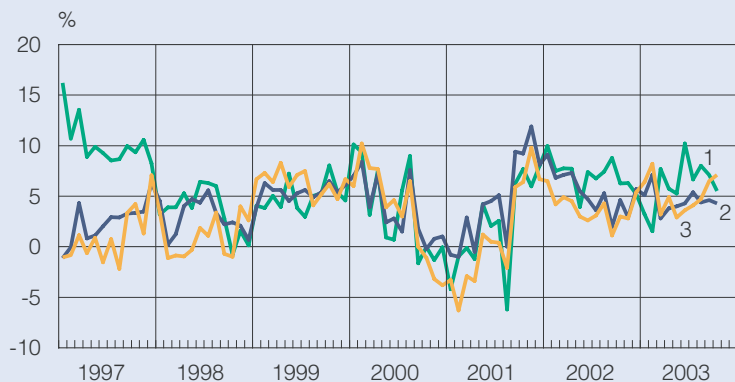
Data collection ended 31 December 2002. Charts based on the new harmonised data collection for the euro area will be published for the first time in issue 1/2004 of the Bulletin.

25. Stock of bank deposits in Finland by tax treatment



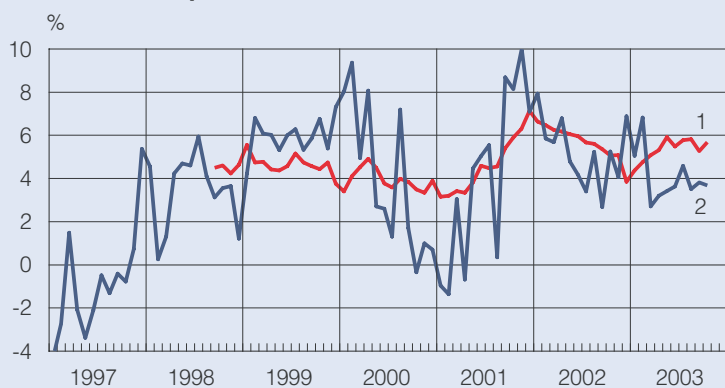
Data collection ended 30 June 2003.

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



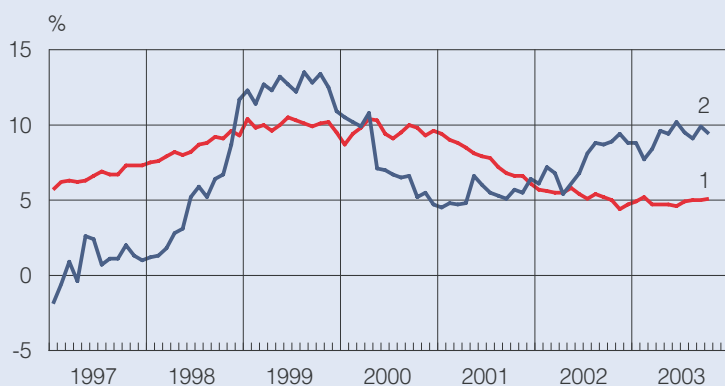
Source: Bank of Finland.

27. MFI deposits, euro area and Finland



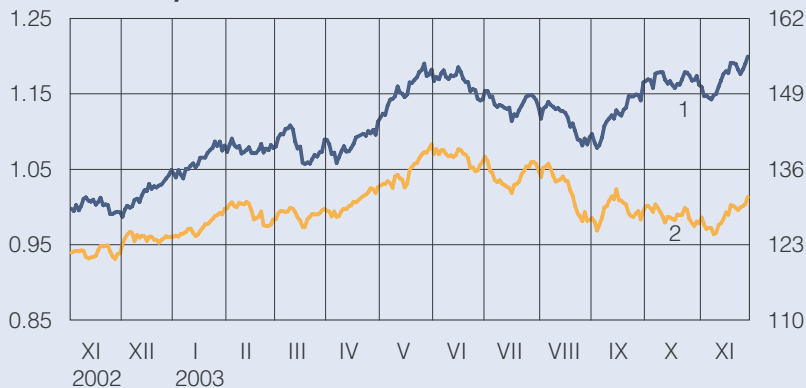
Sources:
European Central Bank and
Bank of Finland.

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



Sources:
European Central Bank and
Bank of Finland.

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

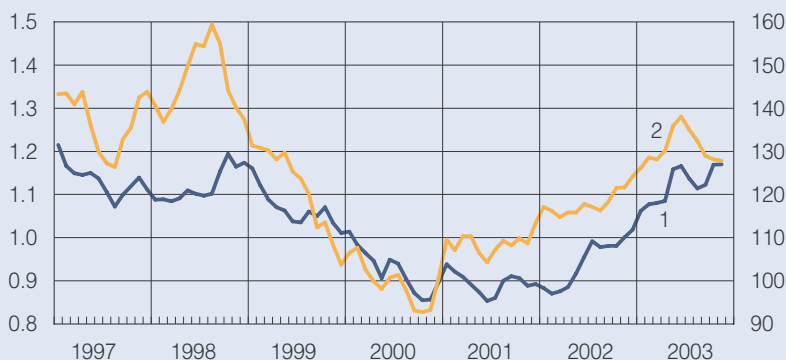


Rising curve indicates appreciation of euro

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



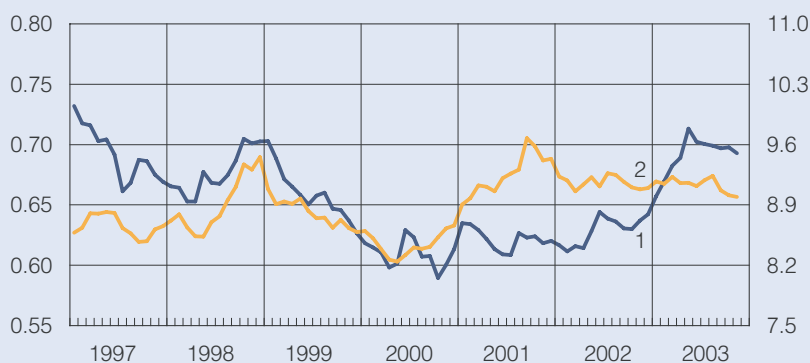
(ecu exchange rate until end-1998)

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



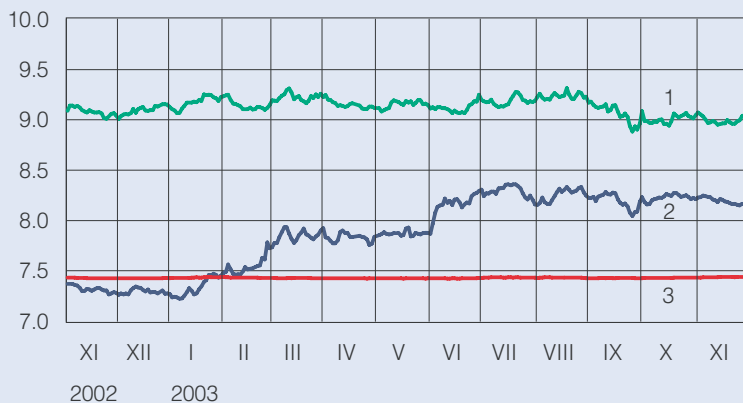
(ecu exchange rate until end-1998)

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

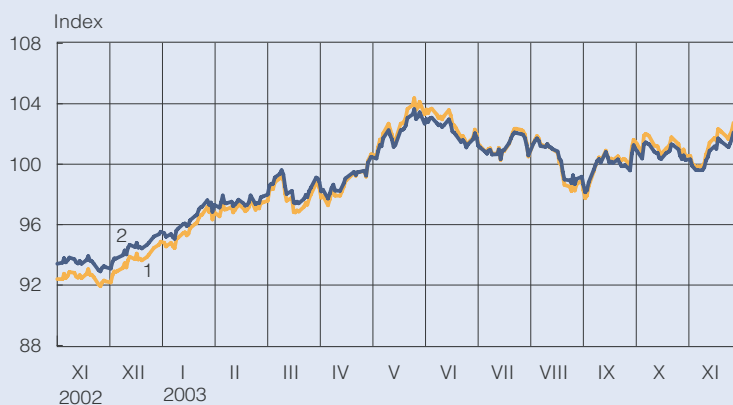


Rising curve indicates appreciation of euro

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

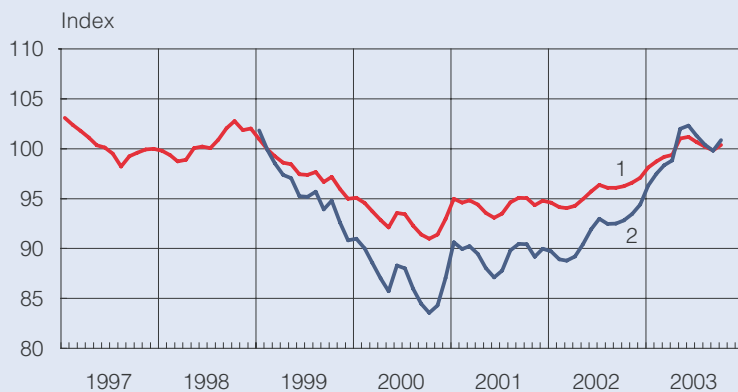


1999 Q1 = 100
An upward movement of the index represents an appreciation of the euro / a weakening in Finnish competitiveness

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

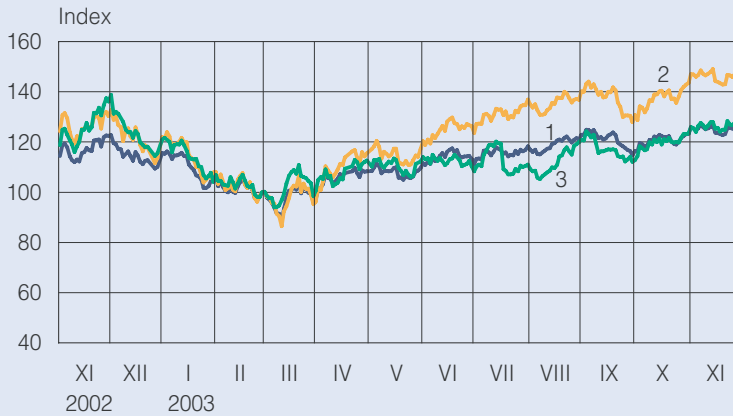


1999 Q1 = 100
An upward movement of the index represents a weakening in Finnish competitiveness

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

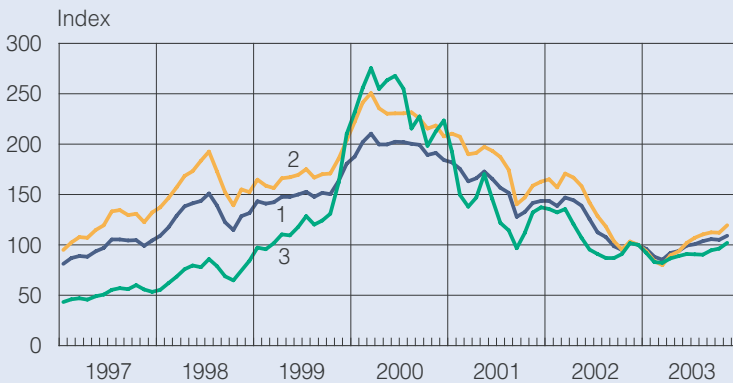


28 February 2003 = 100

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

Sources: Bloomberg and
HEX Helsinki Exchanges.

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

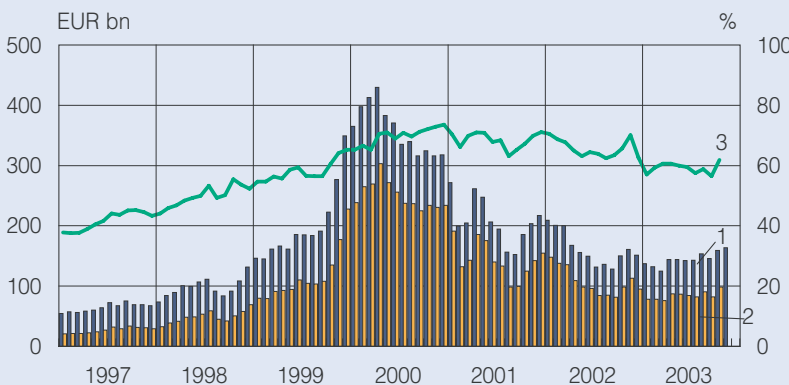


31 December 2002 = 100

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

Sources: Bloomberg and
HEX Helsinki Exchanges.

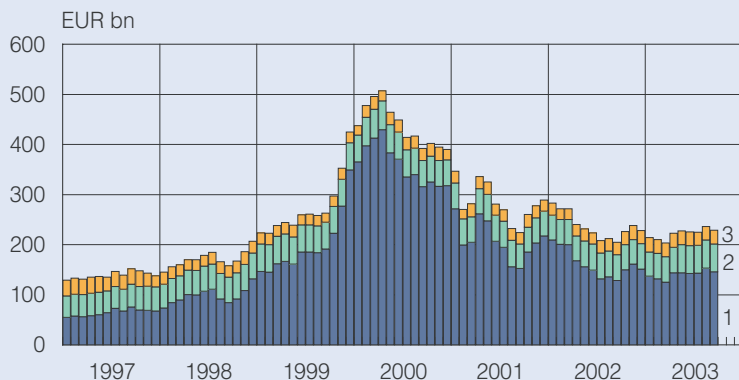
37. Listed shares in Finland: total market capitalisation and non-residents' holdings



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

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

38. Securities issued in Finland

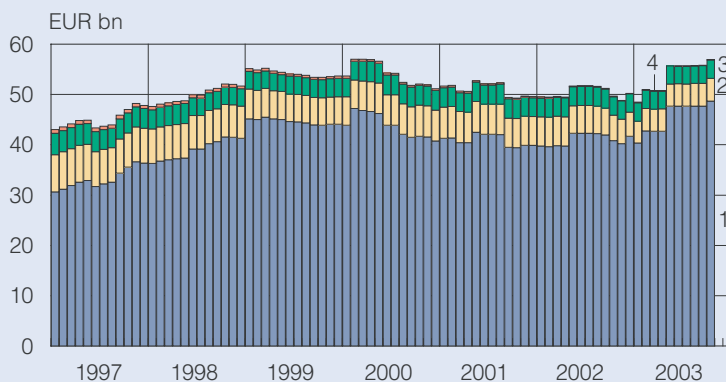


End-month stock

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

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

39. Bonds issued in Finland

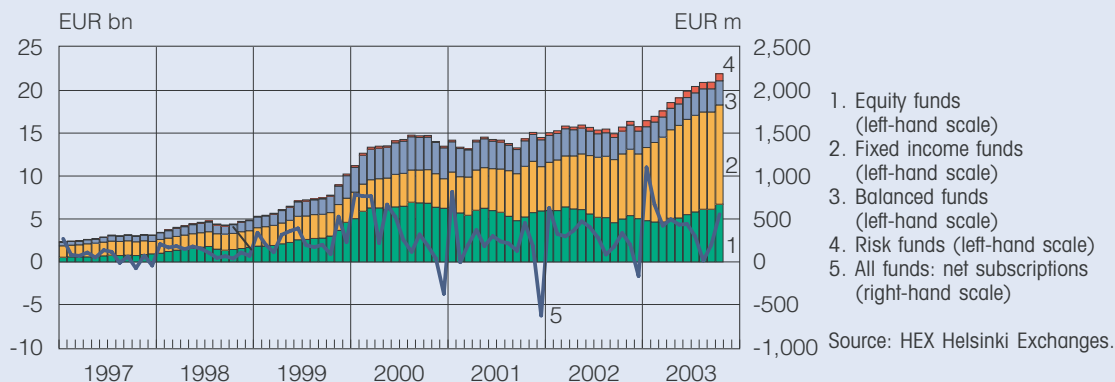


End-month stock

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

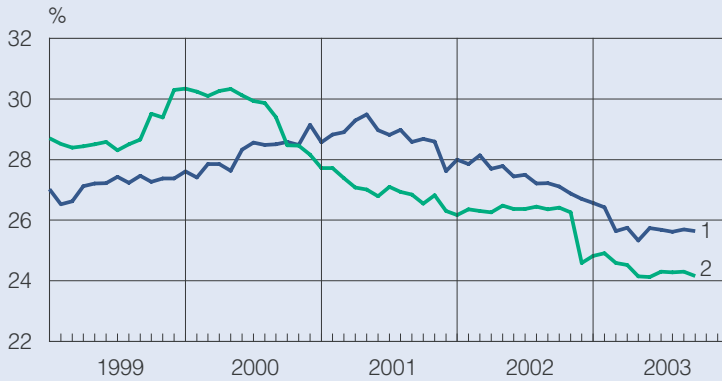
Source: Statistics Finland.

40. Mutual funds registered in Finland



Source: HEX Helsinki Exchanges.

41. Central government revenue and expenditure in Finland

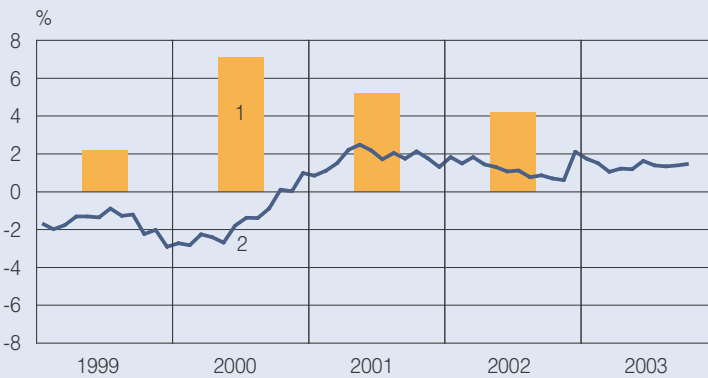


Excluding financial investments
12-month moving totals, % of GDP

1. Revenue
2. Expenditure

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

42. Public sector balances in Finland

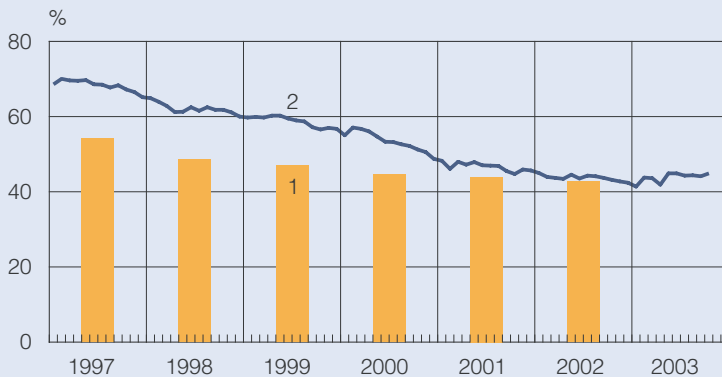


% of GDP

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

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

43. Public debt in Finland

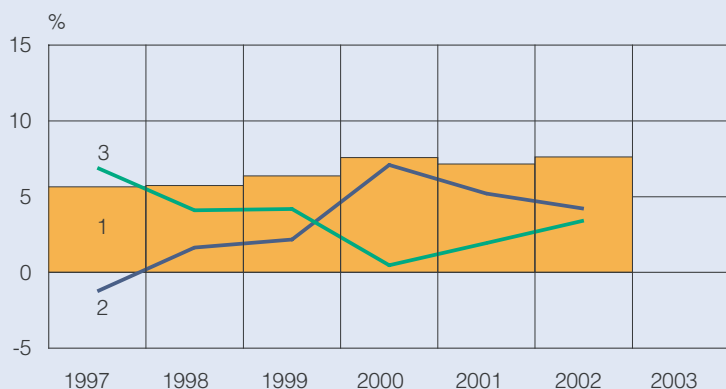


% of GDP

1. General government debt
2. Central government debt

Sources: Statistics Finland and
State Treasury.

44. Net lending in Finland by sector

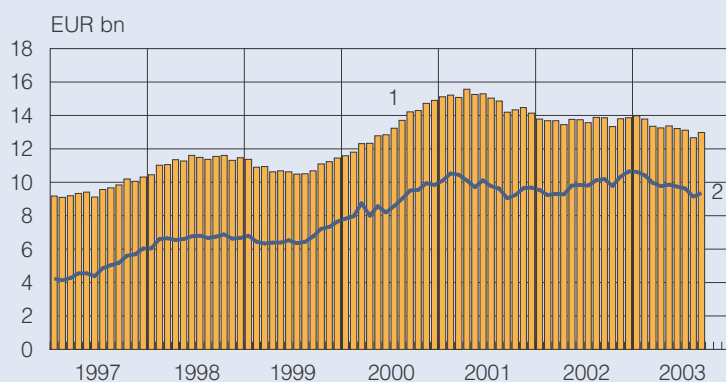


Main sectoral financial balances, % of GDP

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

Sources: Bank of Finland and Statistics Finland.

45. Finland: goods account and current account

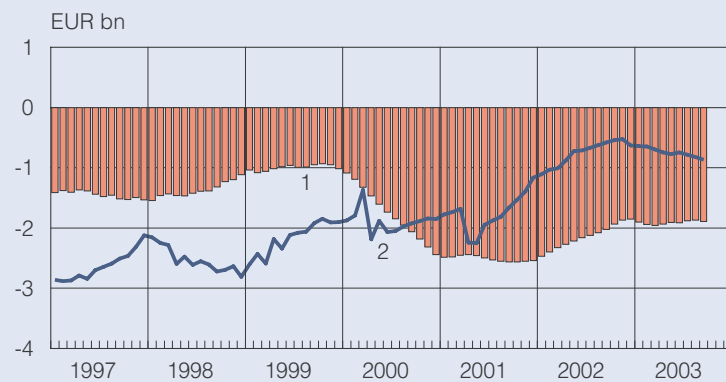


12-month moving totals

1. Goods account, fob
2. Current account

Source: Bank of Finland.

46. Finland: services account and income account

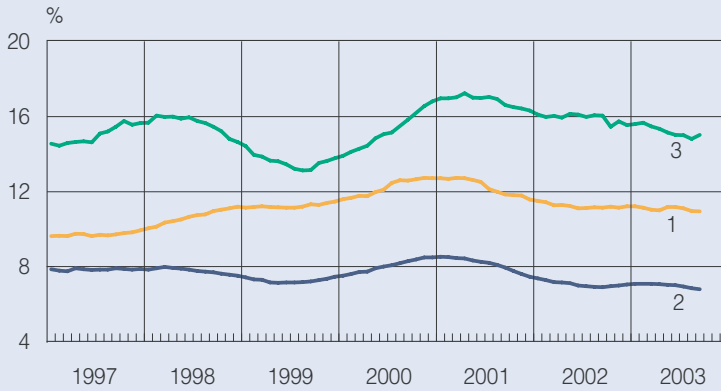


12-month moving totals

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

Source: Bank of Finland.

47. Regional distribution of Finnish exports

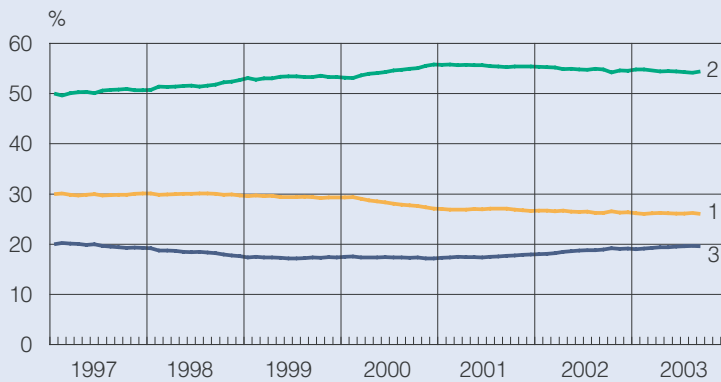


12-month moving totals, % of GDP

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

Sources: National Board of Customs and Statistics Finland.

48. Finnish exports by industry

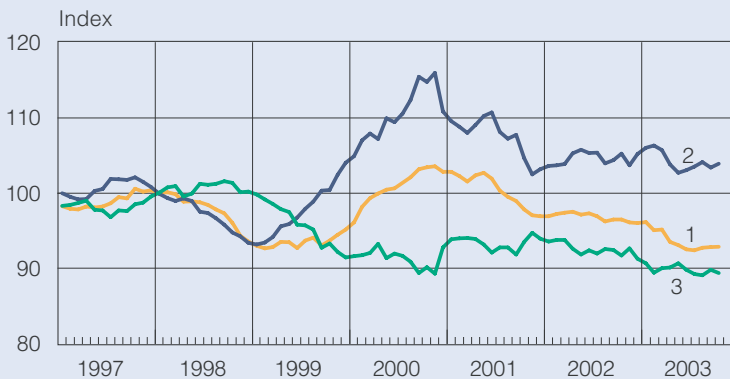


12-month moving totals, percentage of total exports

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

Source: National Board of Customs.

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

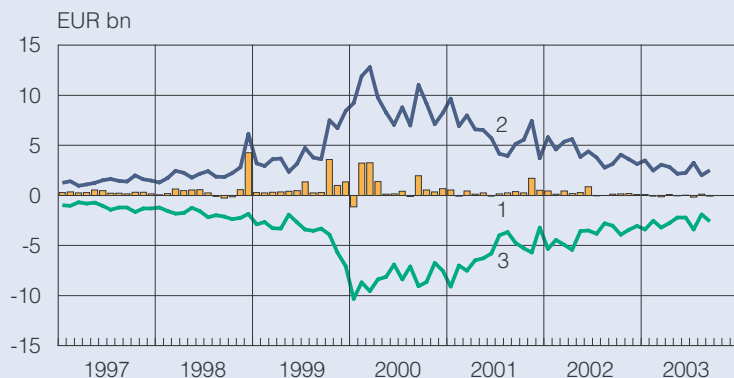


1995 = 100

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

Source: Statistics Finland.

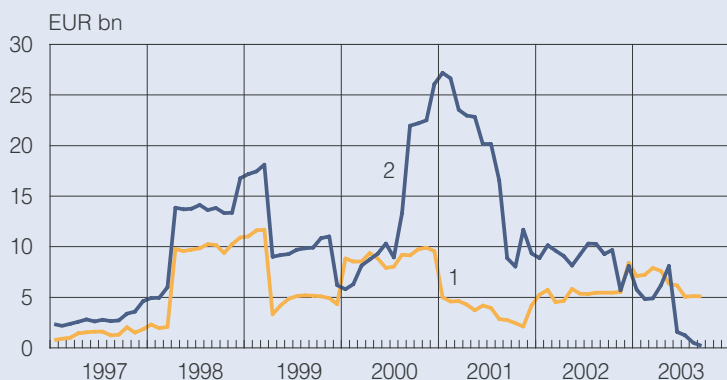
50. Non-residents' portfolio investment in Finnish shares



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

Source: Bank of Finland.

51. Finland: direct investment

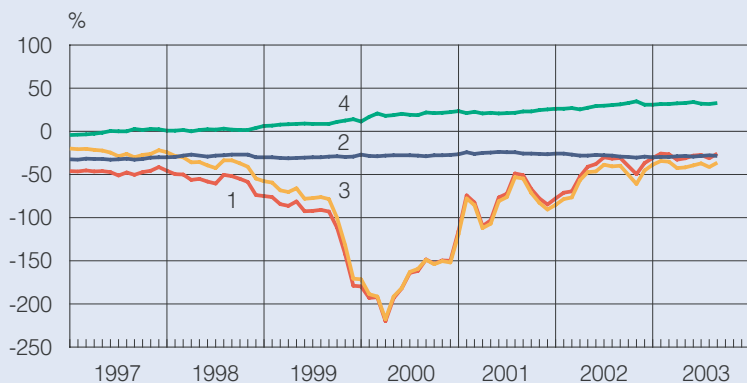


12-month moving totals

1. In Finland
2. Abroad

Source: Bank of Finland.

52. Finland's net international investment position

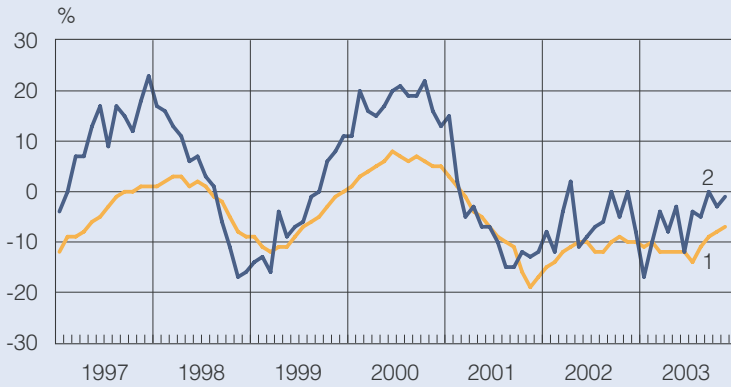


% of GDP

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

Sources: Bank of Finland and Statistics Finland.

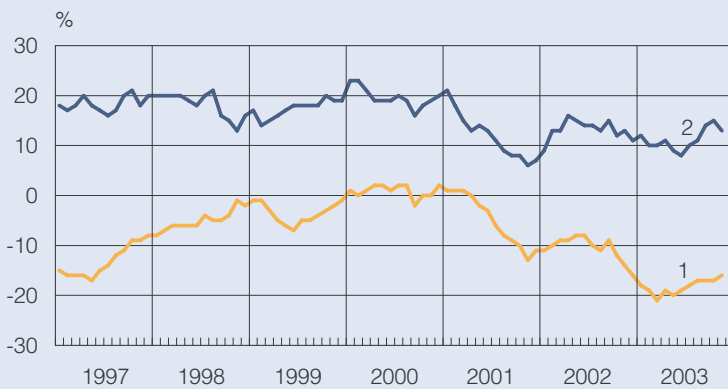
53. Industrial confidence indicator in the euro area and Finland



1. Euro area
2. Finland

Source: European Commission.

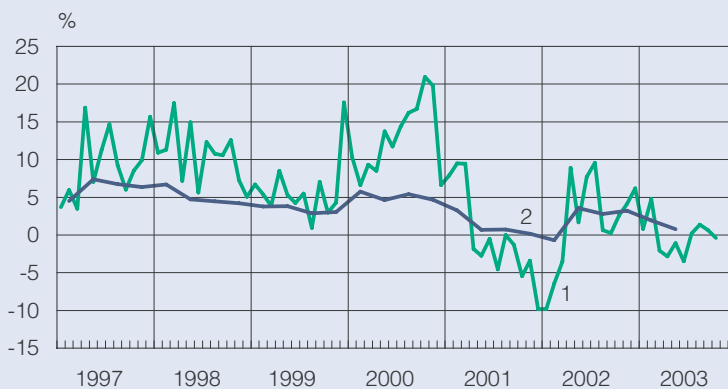
54. Consumer confidence indicator in the euro area and Finland



1. Euro area
2. Finland

Source: European Commission.

55. Finland: GDP and industrial production

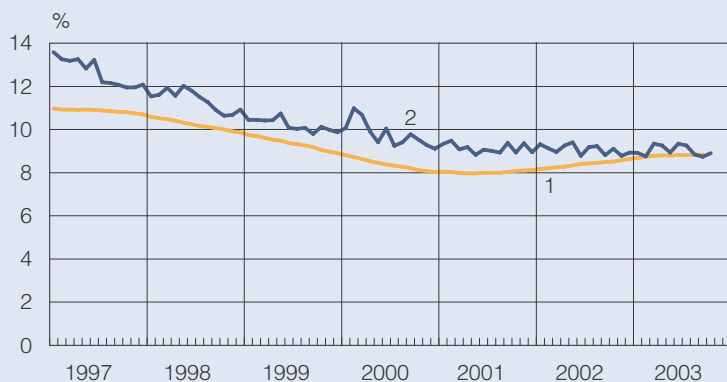


Percentage change from previous year

1. Industrial production
2. Gross domestic product

Source: Statistics Finland.

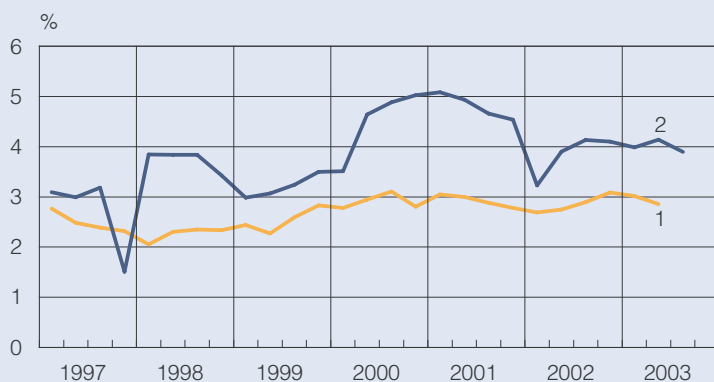
56. Unemployment rate in the euro area and Finland



- 1. Euro area
- 2. Finland

Sources: Eurostat, Statistics Finland and Bank of Finland.

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

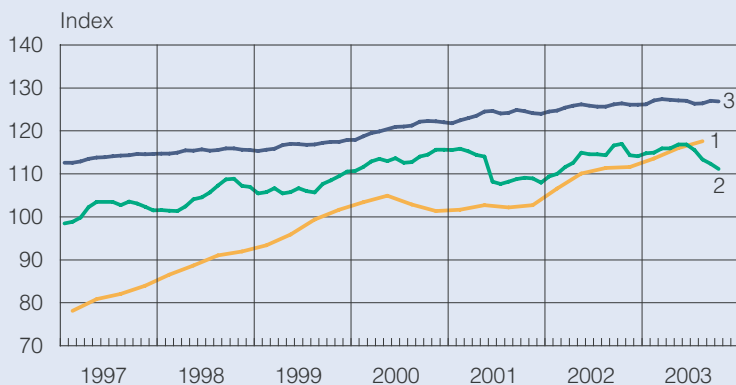


Percentage change from previous year

- 1. Euro area
- 2. Finland

Sources: Eurostat and Statistics Finland.

58. Selected asset prices in Finland



January 1990 = 100

- 1. Housing prices (secondary market; debt-free price per m²)
- 2. Stumpage prices
- 3. Consumer prices

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

Bank of Finland Bulletin, Index to Vol. 77, 2003

Articles and Items

No. 1

The Bank of Finland's macroeconomic forecast 2003–2005

Public finances and strengthening of coordination
by Tuomas Saarenheimo

Bank of Finland's new quarterly financial accounts
by Timo Hämäläinen and Laura Vajanne

2003 parliamentary elections
Commemorative silver coin in honour of
Anders Chydenius

No. 2

Monetary policy and economic outlook

Financial stability in Finland

Housing finance in Finland
by Risto Herrala and Pertti Pylkkönen

Towards electronic payments
by Hanna Jyrkönen and Heli Paunonen

First supplementary budget for 2003
Commemorative bi-metallic coin in honour of
the Ice Hockey World Championships in Finland
Publication of the Bank of Finland

No. 3

The Bank of Finland's macroeconomic forecast 2003–2005

Is Finland's current account surplus here to stay?
by Tapio Korhonen and Pentti Forsman

Competition and regulation in European retail payment systems
by Kari Kemppainen

Commemorative silver coin in honour of
Finnish Field Marshal C.G.E. Mannerheim

No. 4

Monetary policy and economic outlook

Financial stability

Challenges for Finnish economic policy in an unstable international environment
by Matti Vanhala

Impact of the new capital adequacy framework for banks on the stability and efficiency of the financial system
by Esa Jokivuolle and Jukka Vauhkonen

Second supplementary budget for 2003
First Finnish gold/silver EUR 50 coin

Organisation of the Bank of Finland

16 May 2003

Parliamentary Supervisory Council

**Olavi Ala-Nissilä, Chairman, Eero Heinäluoma, Vice Chairman, Ilkka Kanerva,
Arja Alho, Janina Andersson, Sirkka-Liisa Anttila, Mari Kiviniemi,
Martti Korhonen and Ben Zyskowicz**

Anton Mäkelä, Secretary to the Parliamentary Supervisory Council

The Board

Matti Vanhala
Governor

Matti Louekoski
Deputy Governor

Sinikka Salo
Member of the Board

Pentti Hakkarainen
Member of the Board

Heikki T. Hämäläinen, Secretary to the Board

Departments and other units

Antti Suvanto
Economics

Heikki Koskenkylä
Financial Markets
Harry Leinonen*

Juha Tarkka
Research
David Mayes*

Pentti Pikkarainen
Market Operations

Antti Juusela
Communications

Urpo Levo
Payment Instruments

Martti Lehtonen
Statistics

Mauri Lehtinen
Payments and Settlement

Kjell Peter Söderlund
International Secretariat
Olli-Pekka Lehussaari*

Aura Laento
Personnel
Anton Mäkelä*

Terhi Kivilahti
Development and Budget

Armi Westin
Information Technology

Taina Kivelä
Internal Audit

Arno Lindgren
Legal Affairs

Antero Arimo
Publication and
Language Services

Esa Ojanen
Administration

Heikki T. Hämäläinen
Management
Secretarial Staff

Veli-Matti Lumiala
Security

Pekka Sutela
Institute for
Economies in Transition

* Adviser to the Board

Branch offices: Kuopio, Oulu, Tampere and Turku.

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

SUOMEN PANKKI
BANK OF FINLAND
PO Box 160
FIN – 00101 HELSINKI
FINLAND

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

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

Old address details

Company

.....

Name

Address

.....

New address details/subscriptions

Company

.....

Name

Address

.....

New subscription Cancellation Number of copies

