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Monetary policy and economic outlook

26 May 2005

World economic growth continues at a relatively favourable pace, if somewhat unevenly. Development in the euro area has been muted. Price stability is nevertheless close to target, and interest rates remain low. Within the European economy, as in Finland, the challenge is to secure real competitiveness in a rapidly changing world.

The pace of growth in the global economy showed signs of slacking by the second half of 2004, following a rapid period of growth over the preceding year. In the early months of 2005, growth has continued at a relatively favourable pace. Economic development has, however been uneven. In China in particular, as well as certain other emerging economies, economic activity has continued to be strong. Similarly in the United States, despite a slight slowdown, economic developments have been quite favourable. However, some euro area economies have again taken a downturn. Oil prices have risen in line with the rapid growth in the global economy, but the same high fuel prices have begun to dampen growth by cutting real disposable income in oil consuming countries. Despite this effect, the outlook for the world economy in the near future remains favourable.

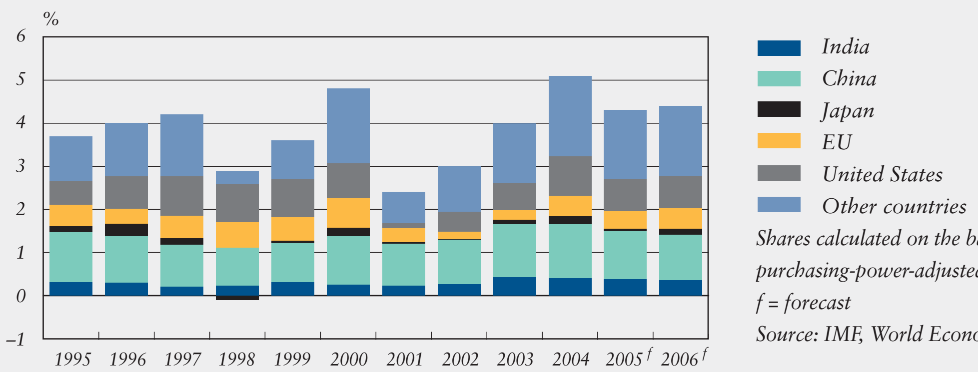
On the whole, consumer price inflation has stayed in line with monetary policy objectives, although the dispersion of product and asset price developments continues to be large. In some countries, policy interest rates have been raised, but overall – including within the euro area – they remain low and liquidity is abundant.

Growth concentrated on emerging economies

World economic growth has slowed from 5% a year ago to approximately 4% this year (Chart 1). This growth

Chart 1.

Regional shares of world GDP growth



Shares calculated on the basis of purchasing-power-adjusted GDP.
f = forecast
Source: IMF, World Economic Outlook.

World growth is forecast to remain around 4% in the immediate years ahead.

phase has been the one of the strongest seen in the last few decades. Development has also been favourable in the comprehensiveness of the increase, in that it has also affected many Latin American and African economies. However, in Asia, the large emerging economies of China and India, in particular, have undergone a period of robust growth. Conversely, several euro area countries have experienced a period of fairly subdued growth.

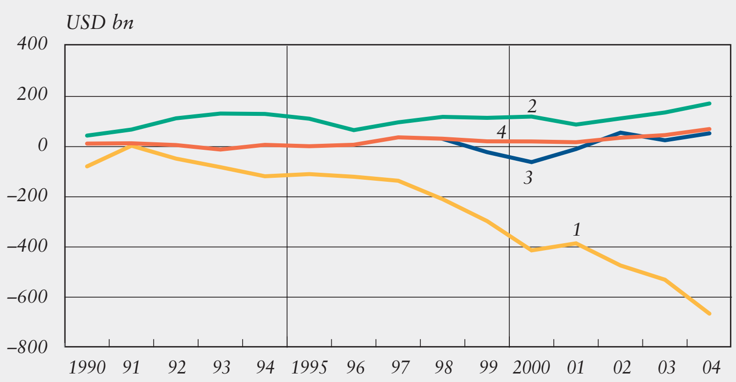
According to forecasts issued by international organisations such as the International Monetary Fund and the European Commission, world economic growth is predicted to continue at close to 4% in the years ahead. However, both emerging economies and industrialised countries alike will face significant risks to growth. To a large degree, the risks experienced by emerging economies are related to their inadequate infrastructures and instability in their financial markets and to the weak manageability of partly regulated economies. Industrial nations, for their part, are blighted by uncertainty over structural changes in the global economy, energy prices and developments in property values.

Growth rate differentials have reinforced current account imbalances and one of the global economy's more notable problems is the US current account deficit, which has risen to as high as 6% of GDP (Chart 2). In dollar terms, the US deficit is greater than the rest of the world's deficits combined and adds to a sense of uncertainty, particularly in relation to exchange rates, share prices and market interest rates. Interest rates and foreign exchange rates in the major economies have certainly been somewhat volatile, although not to such a degree as to pose a problem (Chart 3).

The US current account deficit and low interest rates have

Chart 2.

Current account



1. United States
2. Japan
3. Euro area
4. China
Source: IMF.

contributed to relaxed monetary conditions outside the United States. Many Asian and European countries have maintained sizeable current account surpluses, as have some oil producing nations. The financing of the US deficit has not necessarily come directly from countries running a surplus, as the extensive international financial markets facilitate the movement of finance through other countries. For example, the Chinese current account surplus represents just a small proportion of the foreign reserve funds that the Chinese central bank has invested in the United States. Most of the funds invested are actually from investments in China from other Asian countries.

Conflicting inflationary pressures cause problems for monetary policy

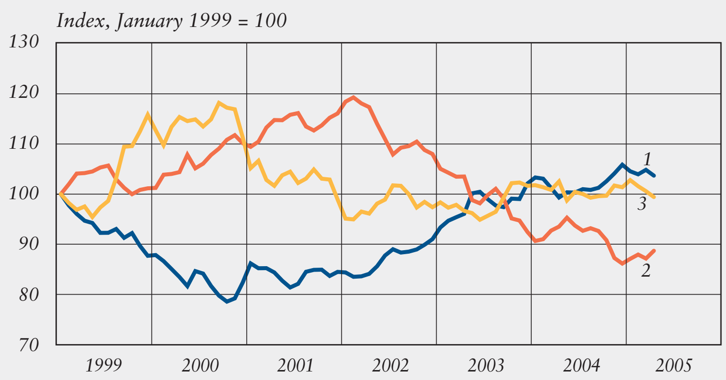
The powerful growth in the global economy has increased the price of energy and other commodities. In the early months of 2005, the average price of Brent oil has been almost USD 50 a barrel, having risen USD 10 a barrel per year over the previous two years. The real price today is admittedly only half the peak level of the early 1980s. However, the world market prices of many metals and foods have also risen.

The price of energy and other commodities has risen.

Although, at current exchange rates, the Chinese economy still only accounts for less than 5% of the world's economy, its share of worldwide demand for many commodities is much greater. In contrast to the norm in industrialised countries, in China and many other emerging economies, growth is focused on goods that require a high concentration of energy and other commodities. The regional shift in the focus of growth seems to have halted the decades-long drop in the relative price of commodities. This is, however, likely to be a temporary phenomenon, as rising prices due to

Chart 3.

Trade-weighted exchange rate indices



1. Euro area
2. United States
3. Japan
Sources: European Central Bank and Bank of Finland.

A prolonged period of low interest rates can cause problems of overindebtedness and debt risks that threaten financial market stability.

increased demand generally tend to lead to a corresponding increase in the supply of commodities. Rising energy and commodity prices have been accompanied by a continuing rise in the prices of real estate and housing in many countries.

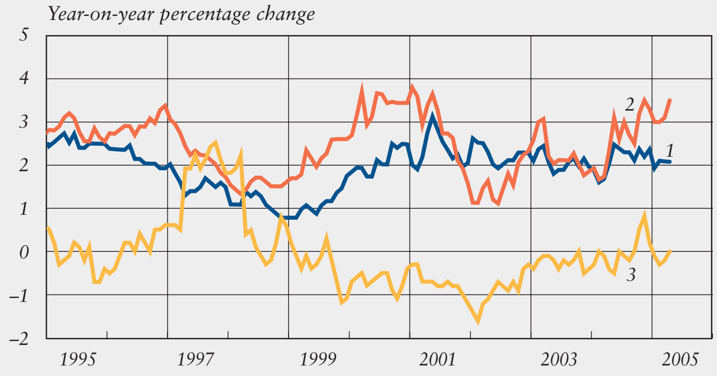
Price pressures nevertheless remain contradictory. China, India and other rapidly industrialising economies have on the other hand brought powerful downward price pressures to bear on the global economy by flooding world markets with low-priced products. At the beginning of 2005 the Chinese textile industry was released from the quotas imposed by the WTO's Agreement on Textiles and Clothing. This led to a temporary surge in textile exports from China, in some cases many times the previous volume. A second major factor in the downward pressure on prices is the continuing fall in the price of ICT products, associated services and applications. The downward pressure on prices has also had a moderating effect on wage trends in developed economies.

Moderate increases in consumer prices and wages have enabled the continuation of relaxed monetary policies in industrialised economies, despite the strength of economic growth (Chart 4). However, the continuation of low interest rates for such an extended period can cause problems of its own, as, over time, it can create problems of overindebtedness and debt risks that threaten the stability of the financial markets. For the moment, a strong rise in lending and the effects of loose liquidity have been most clearly felt in the steep rise in the price of housing. However, in the United States there has recently also been an acceleration in consumer price inflation.

Policy interest rates have already been raised, eg in the United States

Chart 4.

Consumer prices



1. *Euro area*
2. *United States*
3. *Japan*

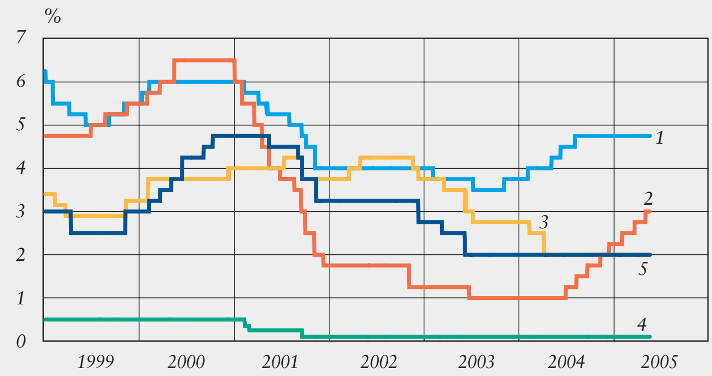
Sources: Eurostat and OECD.

(Chart 5). US interest rate hikes have continued since summer 2004, but at such a moderate pace that the policy rate now corresponds more or less to the rise in consumer prices, which has been about 3%. The policy rate in the euro area is currently 2%. In recent months, the annual rate of increase in the HICP in the euro area has been a little over 2%. According to ECB, consumer prices over the next few months are expected to remain close to the recent level. In addition, there is no significant evidence of upward changes in domestic inflationary pressures over a slightly longer period.

Uncertainty over economic growth, inflation and economic policies has been reflected in market rate fluctuations. Despite this, long-term market rates have remained very low in both the euro area and the United States (Chart 6). On top of

Chart 5.

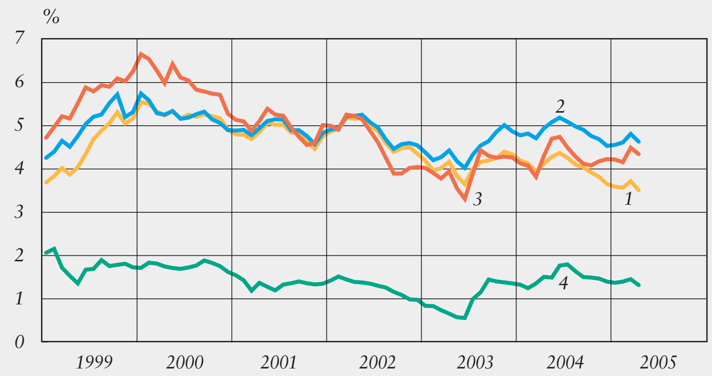
Policy rates



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

Chart 6.

International long-term interest rates



Interest on 10-year government bonds

1. Germany
2. United Kingdom
3. United States
4. Japan
Source: Reuters.

Viewed historically, long-term real interest rates are exceptionally low.

this, high risk premia imposed on weak lenders have intermittently dropped to exceptionally low levels. The downward pressure on interest rates has been caused by a broad range of factors. These include notably high global savings relative to real investment and certain exceptional demand factors concerning interest-bearing securities, particularly pension insurance companies' and Asian central banks' major investments in the government bonds of industrialised countries.

Viewed historically, long-term real interest rates are currently at unusually low levels and much lower than productivity growth. In addition to the positive aspect of this, there are also some risks involved, such as the danger of excessive indebtedness. It can also have the effect of making the return on long-term pension fund investments and other investments problematically small.

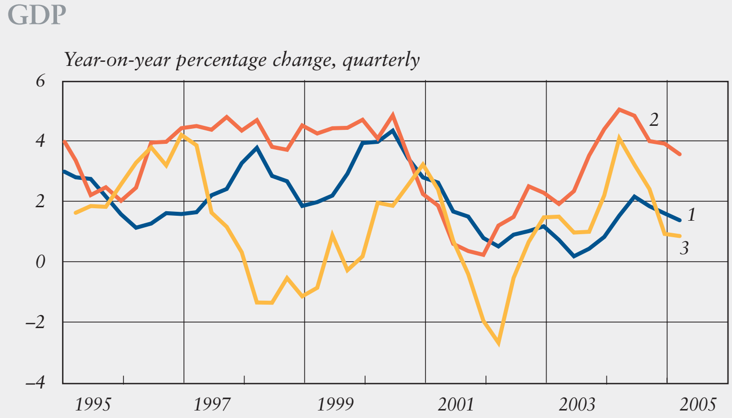
Growth in US economy's indebtedness continues

The easing of US fiscal and monetary conditions in recent years is central to the country's brisk economic growth, but also to the imbalances in the US economy. Annually adjusted US GDP was up 3½% in the first quarter of the present year, and economic confidence indicators have remained on a relatively high level (Charts 7, 8 and 9). According to the most recent forecasts, US growth is expected to continue much faster than that of the euro area. To some extent this is explained by the larger growth in the American workforce over that of the euro area. GDP growth is being sustained not only by robust household consumption, but also by corporate investment. The trade deficit has been boosted by imports resulting from burgeoning domestic demand, although there have been indications recently that the depreciation of the dollar has begun to boost exports.

The strength of domestic demand in the US market is based, to a large degree, on the rapid growth in both public and household indebtedness. The paucity of domestic saving is reflected in the large current account deficit. A 6% deficit would be a substantial problem for many nations. However, the flexibility of the US economy, the dollar's position as a reserve currency and a liquid financial market all serve to alleviate the economic burden of the nation's sizeable deficit.

The existing situation is not without its problems, as it adds to a sense of uncertainty in both the US economy and the global economy, particularly in terms of instabilities in exchange rates and market interest rates. A controlled reduction in the deficit is essential. The depreciation in the external value of the dollar thus far supports such an outcome, but a substantial reduction in the deficit will presumably require a considerable reduction in the pace of growth in US domestic demand.

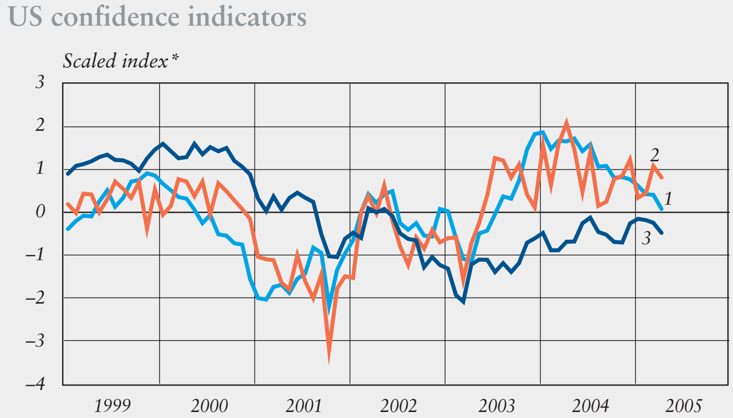
Chart 7.



1. Euro area
2. United States
3. Japan

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

Chart 8.

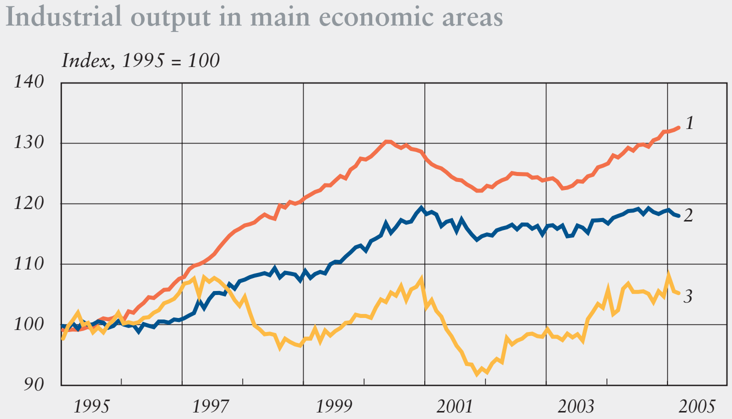


1. Manufacturing Purchasing Managers' Index (PMI)
2. Services Purchasing Managers' Index (PMI)
3. Consumer Confidence Index (CCI)

* The index shows the difference 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: Conference Board and ISM.

Chart 9.



1. United States
2. Euro area
3. Japan

Source: Bloomberg.

China is overtaking Japan as Asia's key economy.

The rise of Asia

China is about to supersede Japan as Asia's key economy – it has after all ten times the population of Japan. Taking account of market prices and exchange rates, the Chinese economy still remains just half the size of Japan's, but the purchasing-power-adjusted relationship is the reverse. In terms of market prices, China's living standards are only 5% of Japan's, but China's purchasing-power-adjusted GDP per capita is already a fifth of Japan's.

From the perspective of the global economy, it is highly significant that last year China's exports exceeded those of Japan, and the gap continues to widen at a rapid pace. If the present trend continues, in just a few years China will become the world's main exporter. The Chinese economy has grown at an annual rate of about 8–9%, and measures to cool the growth rate have not had a significant impact. The annual growth rate for the first quarter of 2005 was approximately 9½%. In spite of robust growth, consumer price inflation has been kept at a relatively moderate level.

It is, however, important to remember that the explosive rate of growth in China is marked by a number of problems and risks. Development both regionally and between sectors is extremely patchy, on top of which the nation's environmental problems are increasing. Due to inter alia its inefficient use of energy, China suffers from a shortage of energy supplies in addition to suffering from critical shortcomings in its financial system. The significance of the latter problems is admittedly moderated by China's continued extensive regulation of its financial markets and foreign capital movements.

India's share of world trade is still small, but, as it possesses in some respects a more developed infrastructure than China, India is becoming the focus of strong flows of direct investment in service provision. Opening up its economy has helped India achieve a relatively stable growth rate of around 6–7%.

The Japanese economy has long differed from the other large Asian economies, in terms of both its affluence and its almost zero growth. In 2003–2004, for the first time in many years, the Japanese economy was hit by a wave of optimism, as China's strong economic current reached Japanese exports, stimulating increased domestic investment by Japanese companies. In 2004, Japanese growth was about 2.5%. However, economic indicators from the end of last year show that economic growth came to a virtual standstill and growth forecasts for 2005 foresee only about a 1–1½% rise in GDP.

Euro area prospects still muted

Euro area growth was no more than 2% last year. By the end of the year the pace of growth was slowing, and there has been no real improvement in the early part of 2005. The previous strengthening of the euro has had a detrimental effect on the region's exports, while domestic demand has remained lacklustre. According to forecasts issued by various international organisations, euro area growth is expected to reach just over 1½% this year, but should regain its trend level of 2% in 2006. As a result of this sticky growth, there has been only a marginal improvement in employment levels, with the unemployment rate remaining at 9%. In Europe, it is mainly the larger euro area countries that have experienced growth problems, while growth in many of the smaller members and outside the euro area has remained relatively strong.

Germany's situation remains problematical. The chief problems have been in the eastern Länder, but the pressures of an ageing population are also burdening Germany. In addition, high cost levels have played their part in influencing the shift of production abroad. Economic reforms, important in themselves, have added to the sense of caution and encouraged German households to increase their saving levels. As at the same time, investment activity has been sluggish, the German current account surplus has risen to the high levels of the past. German price competitiveness has already improved from the imposition of a tight rein on costs.

The main challenge for Germany, as for the other European economies, is to secure real competitiveness in a rapidly changing world. Strong and sustainable growth in the euro area cannot be achieved without more intensive innovation and better education and training, a lighter regulatory system for the corporate sector, market liberalisation and increased labour market flexibility. Greater efficiency is required particularly in the provision of services. Industrialised countries are having to shed some of their industrial output for cost reasons, but the strongly growing imports of emerging economies offer western European exporters numerous opportunities. The more flexibly they are able to respond to these structural changes, the shorter-term and smaller the job losses will be.

The challenge for European economies is to secure real competitiveness in a rapidly changing world.

The euro countries with the slowest growth levels are troubled by difficulties in keeping within the constraints of the Stability and Growth Pact. The budget deficits of Germany, France, Italy, Portugal and Greece exceed or come close to the set limits of 3% of GDP. As the economic problems experienced by the euro area countries are partly opposed in nature, clear economic policy solutions are not easy to achieve. This has also affected interpretation and implementation of the Stability and Growth Pact itself.

The slow recovery of capital investment is not a problem of Germany or the euro area alone; it is a common problem throughout the industrialised world. US investment is still based on the strength of domestic demand, but in many countries investors are considerably more cautious. Investment is being channelled towards faster-growing markets, particularly in Asia.

Finnish growth slower than forecast.

Investment levels are based on prospective returns, and it is here that companies seem to be showing great uncertainty. Neither easy access to external financing nor the low cost of credit appear to be breathing much life into corporate investment. Caution is deepened by the new competitive situation within the global economy. However, investments aimed at boosting productivity and creating new products are the only means of long-term survival in these new economic conditions.

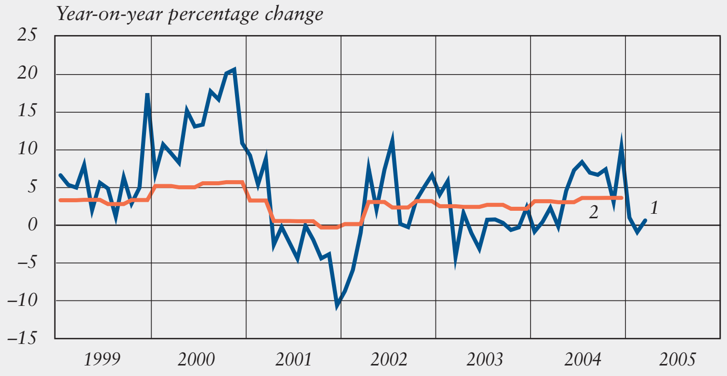
In many respects, the euro area's economic fundamentals are sound. Price stability is close to target and interest rates remain low. On top of this, the current account is in surplus and the area holds no significant external debts.

Robust consumption supports growth in Finland

In terms of economic growth, 2004 turned out to be more favourable than expected. GDP increased by more than 3.5% (Chart 10). In contrast to the general trend during economic swings, there was only a slow revival in exports, with growth based on strong household consumption and investment in housing. There was a surge in exports at the end of 2004, but only momentarily. The growth rate slowed again in the early months of 2005, settling at around 2%, just as exports and industrial production have experienced only weak growth. This is due in part to the electronics industry, which has cut production considerably since the end of last

Chart 10.

Finnish GDP and industrial output



1. Industrial output
2. GDP
Source: Statistics Finland.

year. It is possible that growth for 2005 may slow to below the 3% level forecast in March by the Bank of Finland, partly due to disturbances in the labour market. Fluctuations in the electronics industry's production levels may continue to have a ripple effect on growth figures in the future, too.

The structure of economic growth has facilitated an upswing in employment, starting in the second half of last year. Brisk domestic demand has boosted employment in the service sector. The favourable trend has continued in 2005. At the same time the unemployment rate has dropped, although a rapid improvement in unemployment is not foreseeable in the near future. The mismatch between unemployed job-seekers and job vacancies would appear to have become an even more intractable problem in Finland in recent years. The reasons behind Finland's employment problems may be not only a shortfall in skills but also eg a mismatch between available jobs and regional concentrations of unemployment.

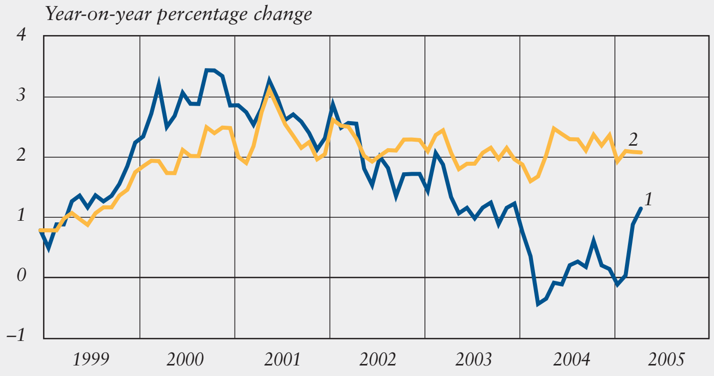
For the last couple of years Finland's inflation has been among the lowest in the euro area, if admittedly mainly due to some exceptional tax solutions (Chart 11). In recent months, inflation has risen to approximately 1%, since the reduction in excise duties on alcoholic beverages of March 2004 is no longer reflected in 12-month price comparisons. Over the coming months, inflation is expected to remain close to the level of recent times. Intensifying competition continues to have a moderating effect on prices, as seen in the provision of telecommunications services.

The monetary conditions in Finland, as in other euro area countries, are very relaxed and access to credit is good. This has served to support demand in the housing

Finnish inflation seems set to remain at current rates.

Chart 11.

Harmonised index of consumer prices



1. Finland
2. Euro area
Sources: Eurostat and Statistics Finland.

market, resulting in continued high prices for housing. At the same time, the increasing rate of household indebtedness has added to the overall risks associated with indebtedness. The increase in the housing loan stock is due partly to the lengthening of housing loan repayment periods, which in itself is a positive development and illustrates that Finland's financing conditions are approaching those of other European countries.

Long-term problems relate particularly to the low level of domestic corporate investment. This recovered slightly last year, a trend that seems to be continuing this year, too. However, the investment ratio of the Finnish economy remains low, if not exceptionally low in relation to our trading partners Sweden, Germany and the United Kingdom.

Finland's top ranking in global competitiveness studies is only part of the truth. This is demonstrated eg by the fact that, according to Finland's balance of payments statistics, the flow of direct investment continues to be primarily outward. Finland has to compensate for the adverse effects of its geographical location on the northern periphery of Europe through a high level of skills and appropriately targeted and adequately resourced investment. Only a strong and productive economy can provide the means to cope with the increased burden of costs from an ageing population in the years and decades ahead.

Keywords: monetary policy, economic situation, inflation

Financial stability in Finland

17 May 2005

The Finnish financial services sector is currently in a stable condition and there are no significant threats to its stability in the foreseeable future. The main causes for concern that do exist relate to the extent to which global economic risks materialise and have a knock-on effect on Finland. A number of major legislative initiatives for the financial markets at global level present a challenge to both financial corporations and supervisory authorities. An important objective of EU authorities is to ensure the benefits of financial integration reach the customer.

Global developments

World GDP grew approximately 5% in 2004. Recent forecasts estimate a slight easing in the pace of growth, which will nevertheless remain brisk in 2005–2007.[1] The favourable forecast for the global economy will support the stability of the international financial system. The risks to growth in the world's key economic regions and stable development in the international financial system are largely the same as in autumn 2004.[2]

The financing of the large US current account deficit requires considerable foreign investment in American securities. Here, the risk is that the foreign investors financing the deficit will suddenly become less willing to acquire American debt instruments. If that were to occur, the problems associated with the deficit could lead to an uncontrolled corrective reaction involving a substantial rise in interest rates on dollar-denominated loans and a precipitous depreciation in the external value of the dollar. This could cause serious problems for growth both in the United States and other economies, and for the stability of the financial markets.

Other key risks to world growth relate to oil prices and the Chinese economy.[3] The threat of terror attacks also constitutes a permanent – if hard to quantify – risk to the stable development of the world economy and the international financial system.

Many countries have experienced a recent sharp rise in their debt ratio. Despite a moderate tightening of monetary policy in the United States and the United Kingdom, key central bank rates are still below the historical average in all major economic regions. In many countries, the lending stock has grown strongly as a consequence of relaxed interest rate policies, while improved access to financing for households has contributed to a rise

[1] See Bank of Finland Bulletin 1/2005 and the article 'Monetary policy and economic outlook' elsewhere in this issue.

[2] Financial stability. Bank of Finland Bulletin special issue (2004).

[3] See the article 'Monetary policy and economic outlook' elsewhere in this publication.

in housing prices. Abundant liquidity has also bolstered share prices, reduced long-term interest rates and lowered the risk premia on corporate debt instruments.

The abundant liquidity in the world economy poses potential risks for the stability of the financial markets. Growing indebtedness increases financial systems' vulnerability to any fall in asset prices or other economic disturbances. Moreover, the long-term persistence of low market rates has increased investors' interest in high-risk financial instruments on the share, bond and derivatives markets. The recent sudden fluctuations in share prices and credit spreads (Charts 1 and 2) could actually reflect the market's uncertainty over the long-term valuation levels of securities.

From the perspective of the stability of the financial system it is

Chart 1.

International share indices

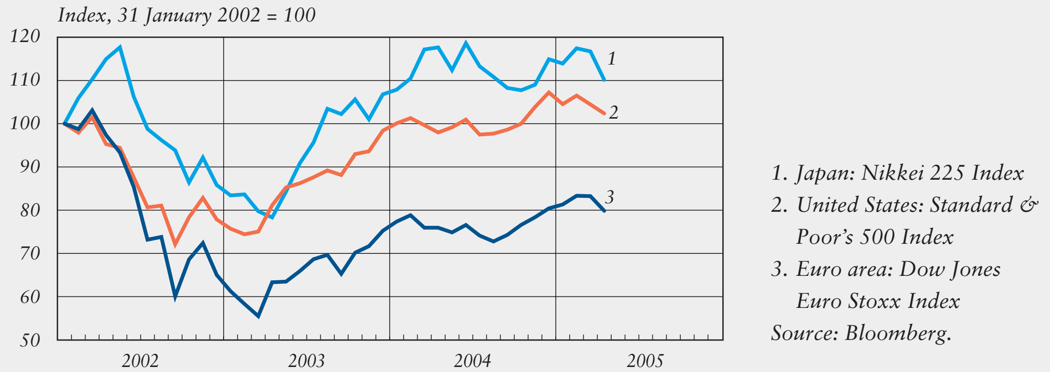
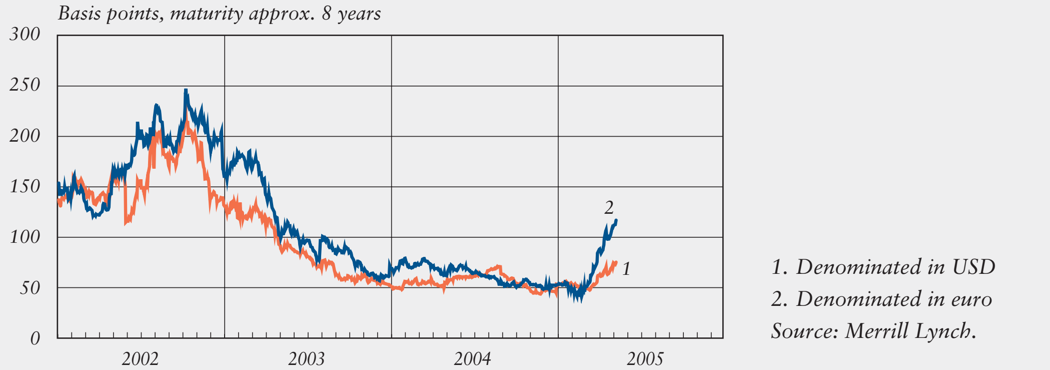


Chart 2.

Credit spread between BBB and AAA rated bonds



positive that the profitability and capital adequacy of banks and other financial institutions improved worldwide in 2004. US banks recorded all-time record results, with the operating profit before taxes of the 20 largest banking groups in the country up almost 10 % on 2003.

Japanese banks have become much healthier in recent years, partly on account of the recovery in the Japanese economy and improved supervision. The more positive outlook for Japanese banks is expressed by the improvement in the Standard & Poor's credit rating of eight Japanese banks during the third and final quarters of 2004.

Although the Chinese banking sector has gone through significant changes in recent years,[4] the country's banks still face many challenges in the years ahead. Their main problems are weak capital adequacy and a large number of nonperforming loans. China's state-owned banks are burdened by having to finance loss-making state-owned enterprises. A particularly worrying feature is that a considerable proportion of nonperforming loans are recent loans, being originally granted during the past few years.

The insurance sector has in recent years been one of the most vulnerable parts of the international financial system. 2004 was, however, a good year for the sector. The profitability of insurance companies was boosted by growth in both premium income and investment income, and solvency was also improved. The challenge for the sector is how to maintain profitability in an environment of low interest rates, particularly in countries where life insurance companies' life insurance and pension schemes are largely guaranteed-yield.

Common challenges facing the banking and insurance sectors in the immediate years ahead are the international regulatory projects currently under way (see Box).

Derivatives market growth involves both benefits and risks.

The benefits and risks associated with derivatives have recently stimulated a great deal of debate around the world. According to a recent report,[5] financial institutions' OTC markets for interest rate and currency derivatives, which make it possible to draw up agreements tailored to specific needs of the trading parties, grew by 74% during the three-year period to April 2004. It is clear that, taken as a whole, the growth and further development of the derivatives market has been positive for the stability of the international financial system by allowing a more effective distribution of risks between financial market participants.

[4] For more detail see eg the Bank of Finland's Financial Market Report 4/2004, Section 2.3 (www.bof.fi/eng/Financial markets/Financial market reports and publications/Financial market report).

[5] Triennial Central Bank Survey – Foreign exchange and derivatives market activity in 2004. Bank for International Settlements (March 2005).

The present situation and future outlook for the European financial sector are on the whole favourable.

However, the strong growth of the derivatives markets raises a number of concerns. In the first place, some derivatives markets are very concentrated. In this sort of market the problems of a single important participant can weaken the market's liquidity and increase counterparty risks. Secondly, a consequence of the extremely rapid expansion of the credit derivatives market in recent years is the fear that credit risk has been transferred from the banks to participants with inadequate risk management. One perceived threat resulting from this is that it could lead to the formation outside the banking sector of risk concentrations that could threaten the stability of the financial system. A third cause of concern is that the active participants in the derivatives markets include hedge funds, which are relatively unregulated and can make extensive use of debt leverage in their investment activities. Hedge funds operate in the derivatives market as counterparties to the banks, and, as a result, counterparty risk may have become concentrated on major banks that are vital to the stability of the financial markets. According to a study by the US Federal Reserve, the above-mentioned threats are smaller than feared.[6] It is nevertheless important that market participants understand the challenges the constant growth in the use of derivative instruments poses for the management of risk.

Condition of the financial markets in the EU

Despite the sluggish growth of recent years in the EU, the European financial sector is for the most part in good health, and the future looks bright. The profitability and capital adequacy of the major European banks improved in 2004, with the combined operating profit of 25 major banking groups up by around 30%.[7] This was due to growth in income other than net interest income, reduced loan loss provisions and better control of costs. Stiff competition, particularly for housing loan customers, meant narrower lending margins (lending rate minus reference rate) in many countries, but, on the other hand, the growth in lending bolstered net interest income.

Both earnings development itself and the factors contributing to it were largely similar in the major banks in the Nordic countries and the Baltic States as elsewhere in Europe

[6] Remarks by Federal Reserve Chairman Alan Greenspan, 5 May 2005, http://www.federalreserve.gov/boarddocs/speeches/2005/20050505/.

[7] The sample includes the following banking groups: Bayerische Hypo- und Vereinsbank (HVB Group), Deutsche Bank, Commerzbank, ING Group, ABN AMRO Group, Fortis Group, RaboBank Group, Dexia Bank, Crédit Agricole Group, Société Générale Group, BNP Paribas Group, Banco Santander Central Hispano Group (SCH Group), Banco Bilbao Vizcaya Argentaria Group (BBVA Group), Banca Intesa Group, Allied Irish Banks (AIB Group), Erste Group, Bank Austria Creditanstalt Group, HSBC Group, HBOS Group, The Royal Bank of Scotland (RBS Group), Barclays Group, Lloyds TSB Group, Abbey National Group, Crédit Suisse Group and Union Bank of Switzerland (UBS Group). Source: the earnings releases of the banking groups listed.

in 2004. Combined pretax operating profits of the 10 largest banking and financial groups in the Nordic region[8] reached EUR 10.5 billion in 2004, against EUR 8.7 billion the previous year. Low market rates and narrow interest rate margins depressed net interest income, in which there was no significant increase at any of the groups surveyed. In contrast, fee income and securities-market-linked income developed particularly favourably. Loan loss provisions were very small. Average capital adequacy in the banks surveyed was also good, albeit the situation varies a great deal between groups.

Loan loss provisions at many European banks were at a record low level in 2004. This reflects the strong average financial position of the key borrower sectors, the corporate and household sectors. Admittedly, European companies on average are carrying fairly high levels of debt. However, stronger corporate balance sheets and improved profitability in 2004 reduce banks' lending risks. The indebtedness of European households is, in contrast, on average lower than in many other developed countries. Strong growth in housing lending and rapidly rising housing prices have, however, increased the risks in banks' lending to the household sector in at least some European countries.

[8] Nordea, OP Bank Group, Sampo (banking and investment services), FöreningsSparbanken (Swedbank), Svenska Handelsbanken, SEB Group, Danske Bank, Jyske Bank, DnB NOR and Kaupthing Bank.

Domestic operating environment

The 3.7% growth in Finnish GDP in 2004 was faster than forecast. For the next three years, the Bank of Finland forecasts a slightly slower pace of GDP growth, but nevertheless still in the region of 3%.[9] Economic growth will be sustained by stronger domestic demand, ie consumption and investment. This is good news for domestic financial services. On the whole, the forecast economic trend is favourable from the perspective of domestic financial market stability. The main causes for concern are the risks to the world economy (see above) and their possible knock-on effect on Finland plus the long-term development of Finland's domestic economy. In the long term, there is a concern that Finland's production structure will not adapt sufficiently to changes in the world economy. If so, this would also weaken the operating environment for the Finnish financial sector.

The forecast for the Finnish economy favours the stability of the domestic financial market.

In the near future, the credit risks to the financial sector from Finnish companies will be small. Viewed both historically and internationally, corporate indebtedness is moderate, and average profitability is good. Payment defaults and the number of companies filing for bankruptcy have both been low, which suggests loan losses from

[9] For more detail on the economic outlook see Bank of Finland Bulletin 1/2005 and the article 'Monetary policy and economic outlook' elsewhere in this issue.

corporate lending will remain at a low level in the immediate years ahead.

In the household sector, the growth in the stock of housing loans and in indebtedness has recently attracted a great deal of attention.[10] The brisk demand for housing loans has continued in the early months of 2005 (Chart 3). According to the results of a survey conducted in February, most bank managers are confident that household demand for new loans will either grow or remain unchanged in 2005.[11] Moreover, according to a survey from April, most consumers consider loans advantageously priced at present, with 75 % believing this a good time to take out a loan, and 13 % of households planning to take out a loan during the next 12 months.[12] These figures are well above the average since 1995.

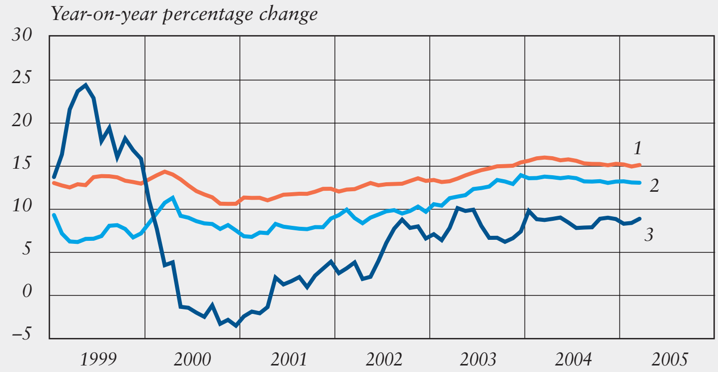
Despite the rise in the indebtedness of the household sector in recent years, the ratio of household debt to GDP is still lower than in the early 1990s (Chart 4). Higher household incomes, lower interest rates on loans and longer loan periods all mean that the housing loan debt burden – ie the sum of capital instalments and interest payments relative to disposable income – has become much smaller over the past five years.[13]

Despite the fairly rapid rise in Finnish housing prices in recent years, the trend has been more moderate than in many other European countries. According to the Bank of

[10] See Risto Herrala's article in this publication.
[11] The bank barometer of the Finnish Bankers' Association 2005/1.
[12] Statistics Finland's consumer confidence indicator 4/2005.
[13] See Risto Herrala's article in this publication (Chart 5).

Chart 3.

MFI lending growth in Finland



1. Housing loans
2. Loans to households
*3. Loans to companies**
** From 2001 onwards includes housing corporations.*
Source: Bank of Finland.

Finland's assessment, there is no sign in Finland of a general housing price bubble – ie a vicious spiral of rising housing prices fuelled by price expectations that would be unsustainable in the long term – although regionally or locally prices have in some cases risen very high.[14]

All in all, the risks associated with the level of household debt and housing credit are estimated to be small. There is little risk of loan losses in the household sector that could endanger the stability of the financial system. The forecast stable economic growth and gradual improvement in the employment situation will support households' ability to service their debt. A rise in interest rates or unemployment could, however, cause serious financial problems for those households whose level of debt is substantial relative to their disposable income.

[14] Bank of Finland Bulletin 1/2005.

Current situation and risk outlook for the Finnish banking and insurance sector

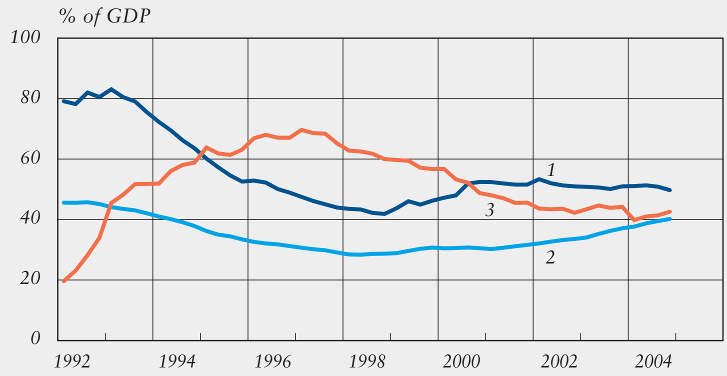
Stable economic growth in Finland and the other Nordic countries in recent years, strong growth in loan demand supported by low interest rates and the healthy debt-servicing ability and strong balance sheets of key borrowing sectors have all ensured a favourable operating environment for financial conglomerates operating in Finland. This was reflected in an improved profitability and capital adequacy in 2004, and the positive trend has also continued in the first quarter of 2005 (see Table). The strong performance of 2004 was based on income growth – particularly from fee income – strict control of costs and a low level of loan losses. During the first quarter of 2005, banks' net interest income began to climb again after a temporary weakening in 2004.

The challenge for financial corporations all over the world in

Financial corporations have had to adjust to operating in an environment of low market rates.

Chart 4.

Indebtedness by sector in Finland



1. *Corporate sector excl. housing corporations*
2. *Households*
3. *Central government*

Sources: Statistics Finland, Treasury and Bank of Finland.

Table.

Key data on selected deposit bank groups

	Net interest income, EUR million			Other income, EUR million			Total expenses, EUR million		
	1–3/ 2005	1–3/ 2004	Change, %	1–3/ 2005	1–3/ 2004	Change, %	1–3/ 2005	1–3/ 2004	Change, %
Nordea Group	897	854	5.0	685	715	–4.2	900	903	–0.3
*Nordea Group, retail banking activities	739	726	1.8	368	348	5.7	627	625	0.3
*Nordea's retail banking activities in Finland	196	–	–	88	–	–	148	–	–
Sampo Group*	73	81	–9.9	1,315	444	196.2	1,158	336	244.6
*Sampo Group's banking and investment activities	82	80	2.5	84	77	9.1	105	103	1.9
*Sampo Group's life and accident insurance activities	–	–	–	–	–	–	–	–	–
OP Bank Group	194	185	4.9	149	139	7.2	196	186	5.4
*OKO Bank Consolidated	38	36	5.6	40	28	42.9	38	34	11.8
Savings Banks (excl. Aktia), total	28	27	2.2	9	13	–24.8	25	25	1.6
Aktia Savings Bank plc (Group)	19	18	6.8	10	12	–12.0	19	19	–2.1
Local cooperative banks, total	19	18	1.6	5	6	–5.4	17	17	1.8
Bank of Åland plc (Group)	8	7	2.7	6	5	3.7	9	8	8.9
Evli Group	0	0	–11.9	16	18	–13.8	13	12	8.1
eQ Online Group	1	1	26.9	8	6	27.2	7	4	62.2
1. Finnish banking and financial groups (excl. Nordea)	350	336	4.0	287	276	4.2	391	374	4.4
2. Finnish banking activities	546	–	–	375	–	–	539	–	–
3. Financial conglomerates operating in Finland	1,238	1,191	3.9	2,203	1,358	62.3	2,344	1,510	55.2

	Operating profit, EUR million			Expenses, % of income		Capital adequacy 31 March 2005	
	1–3/ 2005	1–3/ 2004	Change, %	1–3/ 2005	1–12/ 2004	Primary-Own funds, %	Total capital adequacy, %
Nordea Group	688	624	10.3	57	60	6.8	8.9
*Nordea Group, retail banking activities	487	432	12.7	57	58	–	–
*Nordea's retail banking activities in Finland	137	–	–	52	53	–	–
Sampo Group	227	201	12.9	–	–	–	–
*Sampo Group's banking and investment activities	62	56	10.7	68	64	6.8	10.1
*Sampo Group's life and accident insurance activities	177	23	–	–	–	–	–
OP Bank Group	145	140	3.6	53	55	13.9	15.5
*OKO Bank Consolidated	39	30	30.0	49	51	7.9	11.3
Savings Banks (excl. Aktia), total	12	15	–17.8	69	–	16.0	18.2
Aktia Savings Bank plc (Group)	11	10	10.3	65	66	9.4	14.3
Local cooperative banks, total	7	7	–2.8	–	–	20.4	20.4
Bank of Åland plc (Group)	5	5	–2.1	67	67	7.7	11.5
Evli Group	3	6	–55.7	83	91	21.3	20.8
eQ Online Group	2	2	–34.9	84	91	21.8	21.8
1. Finnish banking and financial groups (excl. Nordea)	246	241	1.9				
2. Finnish banking activities	383	–	–				
3. Financial conglomerates operating in Finland	1,099	1,010	8.8				

1. Includes Finnish banking and financial groups, Sampo's credit and investment activities.

2. Includes Finnish banking and financial groups, Sampo's credit and investment activities and Nordea's retail banking activities in Finland.

3. Includes Finnish banking and financial groups, Sampo Group and Nordea Group.

Other income includes net fee income. Expenses include bonuses and interest on capital paid to owner-members, depreciation and write-downs and, in the case of Nordea, capital gains and losses from the sale of tangible and intangible assets.

** The figures for Sampo Group are not entirely comparable with each other, as the Group structure was changed by the establishment of If Group.The capital adequacy figures for Sampo Group's credit and investment activities relate to Sampo Bank plc Group.*
– means that no data is available or data has not been published.
Source: interim reports of the banking groups.

recent years has been how to adjust to an environment of low market rates. Because of low interest rates, the relative importance of net interest income as a source of income for banks has declined and the importance of other income, particularly fee income, has grown. Banks' net interest income has also been under pressure in many countries as a result of fierce competition in lending. Based on a comparison of banks' lending margins by the Bank of Finland, lending margins in Finland are among the narrowest in the euro area.

The profitability and risk outlook for the banks is good, and there are no serious threats on the horizon. According to the results of stress tests[15] carried out in the Bank of Finland to measure the robustness of the banking sector in a crisis, the stability of the sector would not be endangered even if the economy were to develop less positively than forecast. However, the strong growth in the stock of housing loans, narrow lending margins and longer loan periods could eventually increase banks' credit risk. A serious increase in loan losses would however require a significant deceleration in the pace of economic growth, a steep rise in interest rates and a considerable fall in collateral values, none of which are to be expected in the light of present forecasts.

With regard to other banking risks, the more rapid growth of bank loans relative to deposits in recent years has forced banks to turn increasingly to market-based funding, which has in turn meant increased liquidity risk. Market-based finance is sensitive in its movements and reacts quickly to factors such as changes in credit ratings. The new situation poses greater challenges for banks' liquidity management. The monitoring of operational risk has also become more important as a consequence of recent structural changes in the banking sector, outsourcing of operations and major regulatory reforms.

The profitability and risk outlook for banks is good.

New international financial reporting standards (IFRS) came into effect in the EU at the beginning of 2005 (see Box). Finnish banks will be included in the effects of the reform on profits, equity items and several balance sheet items for the present financial year. As an example, the reform is expected to produce higher figures for banks' balance sheets and equity items. It could also increase the volatility of profits. According to a study by the Finnish Financial Supervision Authority (FIN-FSA), listed credit institutions expect the new accounting standards to have either no impact or only minimal impact on banking operations during the early phase of introduction of the reform.[16]

[15] For more detail on the stress tests see Financial stability. Bank of Finland Bulletin special issue (2004), Box 3.

[16] FSA Newsline online publication 1/2005.

Payment system development in the EU is guided by the drive for a common European payments area.

Finnish authorities and banks are preparing for the international reform of banks' capital adequacy requirements (see Box). In April 2005, FIN-FSA published for comment draft standards on calculation of the capital adequacy required against credit, market and operational risks. The interpretations are based on the European Commission's draft directive of July 2004 for a new capital requirements framework for banks and investment firms and later changes to said draft.

For Finnish insurance companies, 2004 was a good year. Aggregate premium income was up by almost 4%. Growth in life insurance companies' income from premiums was depressed by uncertainty over the tax treatment of private pension policies. Once the uncertainty was cleared up, income from premiums developed well, and premium income has continued to grow in the early months of 2005. The solvency of Finnish insurance companies is better than in many other European countries.

Financial system infrastructure

Payment and settlement systems have performed reliably both within Finland and internationally, and there have been no serious or sustained disturbances. Minor disturbances that have occurred have had no impact on the stability of the financial market, although they may have had some short-term impact in hampering market operations at local level. At EU level, it is essential that the TARGET payment system operates smoothly and reliably, as settlement for numerous domestic payment systems and strategically important international payment systems is carried out through it. In the first quarter of 2005, TARGET has on the whole performed relatively well. There have been few significant disturbances lasting over 2 hours. Effective contingency arrangements made it possible to cope with those rare disturbances that hampered banks' real-time euro-denominated cross-border payments. The Bank of Finland's settlement system (BoF-RTGS) has continued to perform reliably.

The most important development project in payment systems for both Finland and the EU as a whole is TARGET 2. It has so far progressed to a detailed description of the functionalities the system will offer plus the planning of technical implementation. Based on a single shared platform, TARGET 2 is scheduled for phased introduction, beginning in 2007. Finland plans to join the system in the second phase. TARGET 2 will bring major changes both to the operating principles of the TARGET system itself and to all ancillary systems whose settlements are carried out in TARGET. Examples of domestic Finnish systems to which changes will be required in connection with the introduction of

TARGET 2 are the retail payment system PMJ and securities settlement systems. In carrying out its role as payment systems overseer, the Bank of Finland will have to see that the necessary changes do not detract from the security, efficiency and operational reliability of these systems.

Development of future payment systems for the EU area is directed by the goal of a Single Euro Payments Area (SEPA) by 2010. Prime responsibility for the implementation of the SEPA project lies with European providers of payment services via their cooperative organ, the European Payments Council. Successful completion of SEPA is a challenging undertaking. It has been a cumbersome process for such a heterogeneous group of decision-makers to reach agreement on generally acceptable operating practices and how these can be implemented. The task of the authorities is to seek through their own actions to foster progress in this area and facilitate realisation of the potential benefits of financial market integration. At the same time it is also important to ensure there are no disruptions to the stability of the market. A key goal is to ensure the benefits of integration are passed on to the customer.

In addition to these development projects, the authorities also have to ensure the security and reliability of the present systems. In order to further the smooth functioning of payment systems in line with its mandate, the Eurosystem has assessed current national retail payment systems on the basis of common oversight standards and will be publishing the results of its assessment in the near future. As part of this process, the Bank of Finland has assessed the Finnish retail payment system PMJ. The assessment did not reveal any significant problems. The Eurosystem also assesses at regular intervals strategically important large-value payment systems and securities settlement systems on the basis of commonly approved standards. These assessments are extremely important to the stability of the financial markets both domestically and internationally, as they provide an assurance that the basic infrastructure of the financial markets itself is not a source of serious disturbances. Alongside stability, a parallel objective is efficiency. Inefficient payment and settlement systems are under no circumstances optimal for the economy as a whole.

It is vital to ensure the security and reliability of existing systems.

The pursuit of efficiency gains through larger units and market areas has been clearly discernible in the securities markets. Concentration of securities settlement systems in the Nordic market has continued. Following the Swedish OMX's sale of the Finnish Central Securities Depository (APK) to the Swedish Central Securities Depository (VPC), APK became a wholly owned subsidiary of VPC with a licence to operate the Finnish book-entry system. The principal owners of the entity thus formed – branded the Nordic Central Securities Depository (NCSD) – are OMX and the four largest Swedish banks, with equal shares of around 20% each. On one hand the formation of the NCSD could help to increase efficiency through economies of scale, if the systems and services provided by the national central securities depositories can be successfully harmonised, but on the other hand it could lead to a concentration of risk. At this stage, the objective behind the company is to produce benefits particularly for the clearing parties of the Nordic marketplaces and custodian banks. Over the long term, however, this emphasis will not be sufficient; in order to reach the achievable macroeconomic benefits of the larger unit, the needs of issuers, in particular, will need to be taken into account. In any case, integration will pose new challenges for official supervision and central bank oversight, and above all for the effectiveness of cooperation and information exchange between supervisors and overseers in different countries.

Consolidation towards larger units has also been visible in the integration of Nordic stock exchanges: OMX's tender offer to the owners of Copenhagen Stock Exchange led to a conclusion in February. Integration into larger units is motivated by the pursuit of cost savings and larger trading volumes, with the aim of survival in the ongoing 'knockout competition' between European bourses. One development feature relating to the harmonisation of OMX's bourses is the international Global Industry Classification Standard (GICS) to be introduced in the Helsinki Exchanges in July 2005. The introduction of the new classification standard will require some degree of reorientation from Finnish investors, but the new standard will on the other hand make for greater comparability between stock exchange lists across the Nordic region. This should with time benefit both domestic and foreign investors, as it will allow Finnish issuing companies to be compared against a more extensive and uniform reference group.

Challenges in financial system regulation, supervision and oversight

EU financial markets legislation has since 1999 been crucially directed by the European Commission's Financial Services Action Plan (FSAP).[17] The aim of the FSAP has been to lower barriers to cross-border competition in Europe's financial markets, and in this way foster market integration and increased efficiency. The ultimate objective has been to promote

[17] See eg Financial integration. Bank of Finland Studies A:108 (2004), Chapter 7.

investment and economic growth by boosting supply of financial services and reducing their prices.

The FSAP originally included 42 proposals, primarily legislative projects, ie either directives or regulations. Almost all the projects under the FSAP have already been implemented in EU law, and the emphasis is now shifting to implementation at national level. Successful implementation is essential to the achievement of the sought-after impacts on growth, efficiency and stability. The fastest and most uniform possible national transposition of existing EU legislation is the primary objective of the Commission's post-FSAP plans.[18]

Successful uniform national transposition of the EU legislation presents a considerable challenge. Vital to this process are the EU's Level 3 committees for financial market legislation: the Committee of European Banking Supervisors (CEBS), the Committee of European Securities Regulators (CESR) and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS),[19] whose main function is to prepare guidelines, recommendations and standards to ease national transposition of EU legislation. They also seek to foster cooperation and information exchange between national financial market supervisors, the importance of which is constantly increasing as the financial services industry internationalises.

It is difficult to assess the overall stability and efficiency impact of some recent very extensive projects such as the reform of accounting standards and the capital requirements for banks and investment firms (see Box), as the impacts of these reforms are felt through many different channels. They are likely to affect financial system structures and the behaviour of financial corporations in ways that are hard to anticipate. It is particularly difficult to assess the combined impact of the simultaneous implementation of several different reform processes.

Successful uniform national transposition of EU financial markets legislation presents a considerable challenge.

The concern in the financial services industry is that the increasing volume of legislation will place a considerable burden on the business opportunities and profitability of financial corporations. In a recent worldwide study,[20] based on responses from 440 banks in 54 countries, the increased weight of regulation is seen as the most serious risk that banks are facing at present. For example, it is seen as placing an unreasonable strain on banks' resources, reducing their risk diversification and creating an unfounded

[18] Green Paper on Financial Services Policy (2005–2010). European Commission (2005).

[19] For more on the Lamfalussy process's four-level approach to the development of EU financial market regulation see Financial stability. Bank of Finland Bulletin special issue (2004), Box.

[20] Banana skins 2005. The CSFI's annual survey of the risks facing banks. Centre for the Study of Financial Innovation (2005).

Box.

Progress of capital adequacy and accounting reforms

The financial markets and the insurance sector are currently the focus of three large regulatory projects that will have major implications for the functioning of markets and the stability of the financial system. These are the reform of international financial reporting standards (IFRS), the reform of the capital adequacy requirements for banks (Basel II) and the reform of solvency requirements for insurance companies (Solvency II).

The international financial reporting standards came into force in EU countries at the start of 2005. They apply to the consolidated financial statements of all listed companies in the Member States. The aim is to improve the international comparability of financial statements and increase the timeliness of financial reporting. As a result of the reform, a growing proportion of financial assets will be measured at fair value. For example, derivative instruments are now to be recognised in the balance sheet at fair value.

The IFRS reform's IAS standard 39 on the recognition and valuation of financial instruments has attracted a lot of criticism, particularly from banks, and the EU has adopted it for the time being without a number of disputed points. The European Commission expects the International Accounting Standards Board (IASB) to review the disputed points during the course of 2005. The first concerns the fair value option, ie the possibility to value any financial instrument whatsoever at fair value. In relation to this, the IASB is to publish an amendment to IAS 39, and the EU is expected to approve this during the summer. The amendment will limit use of the fair value option. Any financial instrument could be valued at fair value if it can be demonstrated that this will improve the accuracy of financial reporting. Another point to be amended concerns recognition of the hedging of interest rate risk on bank deposits. An amendment to this point is currently the subject of negotiations between the IASB and the European Banking Federation, and the IASB will publish the final amendment by the end of 2005 at the earliest.

The Basel Committee on Banking Supervision published in summer 2004 its proposal for a new capital adequacy framework. The new regulations will come into effect in stages at the end of 2006 and 2007. They focus particularly on banks' credit risks, securitised items and market risks. The reform seeks to ensure that the own capital required of a bank is determined more precisely than before by its actual risks.

The European Parliament is currently considering a draft directive based on the new capital adequacy proposal. The implications of the reform had already previously stimulated debate around Europe, particularly in relation to the access to and price of bank financing for small and medium-sized enterprises, and in response to this the Basel Committee made changes to its final proposal. This issue could come up again during the European Parliament's consideration of the draft directive. This is, however, expected to gain broad approval within the agreed timetable.

The Committee of European Banking Supervisors (CEBS) is currently focusing on pushing through the IFRS and Basel II reforms in the banking sector. The aim is to create within the EU sufficiently uniform national standards for banks' official reporting and supervision when the IFRS financial reporting standards and the Basel II capital adequacy requirements are applied.

The reform of solvency requirements for insurance companies is not yet ready. The main principles of the reform are similar to the Basel II reform in respect of banks. The framework directive's target schedule for completion of the reform is October 2006. The Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) has published its second progress report on the Solvency II reform. The deadline for industry responses to the questions raised in the report is the end of May 2005.

sense of security. Increased regulation is felt to be a risk particularly in EU countries and the United States. It is in fact generally recognised that implementation of the recent legislative projects places a major burden both on authorities and on the financial services industry. The EU committees of banking, securities and insurance supervisors are aware of the concerns in the industry and, in accordance with their mandates, are seeking to harmonise supervisory practices, reporting requirements and national transposition of directives. The better the committees succeed in these goals, the smaller will be the resulting burden from supervision, particularly on financial corporations that operate in a number of different countries.

Deepening integration and increased harmonisation are clearly discernible in all segments of EU financial markets. For example, the standards on opening hours and days for market participants prepared by the European Central Securities Depositories Association (ECSDA) are a clear indicator of the drive for harmonisation. On the official side, the European Commission is currently drafting legislation to enhance efficiency and security in the field of payment and settlement systems. In the payments field, the New Legal Framework for Payments in Internal Markets (NLF) currently being drafted is intended to ensure a level playing field for market participants and hence foster the introduction of more efficient systems. In addition, preliminary work has begun on a new directive on securities clearing and settlement systems, with the Commission currently conducting an impact analysis and other preparatory work.

The Nordic countries are in the forefront of integration in many segments of the financial markets. Hence the benefits and risks of integration are visible here first. Integration of the Nordic financial markets poses new challenges for the organisation of effective regulation. A concrete example of this is the Markets In Financial Instruments Directive (MiFID), whose harmonised national transposition is being pursued in cooperation between Nordic authorities.

Deepening integration and increased harmonisation are clearly discernible in EU financial markets.

According to the home country principle in EU banking legislation, the responsibility for prudential supervision of foreign branches lies with the supervisory authorities of the country in which a bank is registered. However, in crisis situations this principle can pose problems for countries that host very large branches of foreign banks. For this reason, cooperation and information exchange between supervisors is extremely important. More extensive harmonisation of supervisory procedures within Europe would ease this process considerably.

In contrast to banking legislation, MiFID takes explicit account of the needs of host country supervisors, whereas in the field of securities clearing and settlement systems comparable principles at EU level are still lacking.

For the Bank of Finland, with responsibility for promoting the overall stability of the financial market, it is vital for Finnish supervisors to have adequate information on important financial corporations operating in Finland, irrespective of what country these corporations are registered in. This is a particularly important issue in respect of the management of crises and other emergency situations.

Keywords: financial system, stability, banking sector, securities market, payment systems, clearing and settlement systems

The housing market and household indebtedness in Finland

27 April 2005

Housing prices in Finland have traditionally been unstable. Structural diversification in the Finnish economy and recovery in the rental market are already helping to stabilise Finnish housing prices and will continue to do so in the immediate years ahead. Strong growth in the stock of housing loans could, however, endanger balanced development if insufficient attention is paid to risk management.

A group of international experts established to perform an external evaluation of Finnish housing finance delivered a report in 2002 which highlighted the problem of housing price instability in Finland. Viewed historically, the strongest fluctuations in Finnish housing prices occurred in the immediate aftermath of the Second World War, but instability has been a common feature of other periods as well.

In recent decades, the biggest rises in housing prices were experienced in the early 1970s and the late 1980s (Chart 1).

The housing price peak in the early 1970s came as the economy was recovering from a period of recession. In a circular of spring 1972 the Bank of Finland urged financial institutions to favour investment in productive capacity and the issuing of credit to support housing construction. In addition, the rate of interest on central bank credit to commercial banks was reduced. In addition to this easing of monetary policy, aggregate demand was also boosted by the upswing in the international economy and rising export prices. The consequent growth in aggregate demand caught monetary policymakers by surprise, and the housing market became overheated. As a result, interest rates had to be raised in 1973.

The events of 1988–1990 are still fresh in the memory of the

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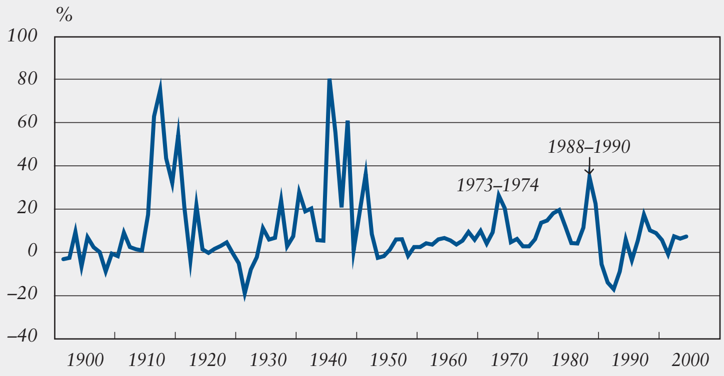
Chart 1.

Annual change in nominal housing prices in Finland 1901–2004



Sources: Parkkinen, P, Asuntovaralisuus vuosina 1900–2030 ('Housing assets 1900–2030'), Economic Planning Centre, Helsinki (1990) and Statistics Finland.

Finnish public. With the removal of credit controls following financial market liberalisation, the stock of housing loans grew and there was a dramatic rise in housing prices. This was followed in the recession years of the early 1990s by a fall in housing prices that was exceptionally strong both historically and internationally. The concept of *kahden asunnon loukku* ('two-apartment trap') that became common currency in Finland at that time provides an unpleasant reminder of the anxiety caused by instability in the housing market.

In Finland, the trend in housing prices has been around the international average.

Factors underlying instability

What, then, is the cause of this instability in the Finnish housing market? In an optimal situation, housing prices could be expected to reflect the steady flow of utility that having one's own home generates. However, this does not generally happen; instead, housing prices fluctuate according to the economic cycle along with household incomes, the general financial climate, unemployment and other cyclical factors. The most dramatic fluctuations in housing prices are due to changes in demand, ie households' financial situation and expectations. As the supply of housing is marked by short-term inflexibility, prices are highly sensitive to fluctuations in demand.

The housing price instability of past decades can to some extent be understood against the background of the structure of the Finnish economy. As recently as a couple of decades ago Finnish exports were still weighted strongly towards the forest industries and the traditional metal industry. Foreign trade was an important source of prosperity for Finland, but at the same time Finns had to get used to the fact that the economy would fluctuate dramatically according to the international cycles in the forest and metal industries. After the crisis of the early 1990s the Finnish economy is now better equipped structurally to withstand fluctuations in the international business cycle. Exports have become more diversified as a result of the high-tech revolution, and the capital position of Finnish companies is good. Although Finland remains dependent on the international business cycle, the recent difficult years in the forest industry sector have no longer destabilised the housing market.

The stability of the housing market is also influenced by monetary policy. During the recent period of low interest rates in the main industrial economies the housing market in some countries has become overheated, in some cases to a degree that gives cause for concern. In most EU countries – including the United Kingdom, Spain and France – housing price inflation has run at over 15% for several successive years since the start of the present decade. In Finland – as in other Nordic countries – the trend has been around the international average. At the beginning of the present decade there was even a slight drop in housing prices in Finland (Chart 2).

Recent assessments by key international organisations such as the International Monetary Fund and the OECD have highlighted the impact on the housing market of financial market liberalisation. Here in Finland, financial market liberalisation was completed in the early 1990s and rent controls were removed by the middle of the decade. The transition from regulated to free market conditions was not easy, and the economy drifted into crisis. In the aftermath of financial market liberalisation, the Finnish economy was gripped by powerful changes, and it was hard to find anything to anchor expectations. This led to a vicious spiral of rising price expectations, followed, when this finally broke, by a dramatic collapse in prices. This meant serious problems for many households, but these exceptionally challenging times are now largely in the past.

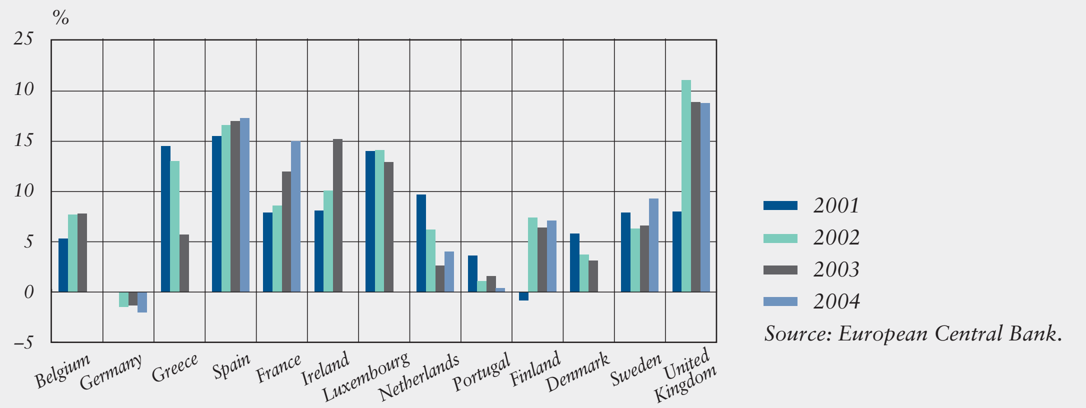
There are a number of factors that speak in favour of a more stable future for the Finnish housing market. The export sector has become more diversified and the real economy is stronger and better equipped than before to withstand fluctuations in the international economy. Accession to the euro area has stabilised interest rates. Deregulation initially led to imbalances in the housing market, but the rental market has now recovered, the housing loan market has become more diversified and housing loan margins have narrowed.

In this new situation, the main challenges in housing policy no longer centre around the problem of access to housing finance. One example of the new situation is the reduction in demand for state-subsidised housing. It is understandable that easy access to normal loans and low interest rates have reduced demand for state-subsidised housing finance. In recognition of this, the

A number of factors suggest a more stable future for the housing market.

Chart 2.

Rise in housing prices in selected EU countries 2001–2004



Source: European Central Bank.

Housing construction must be able to meet the challenge of higher demand.

working group appointed to consider the future direction of the National Housing Fund (ARA) has proposed in its report a gradual shift of emphasis towards supporting the housing of groups with special needs and various aspects of renovation work.

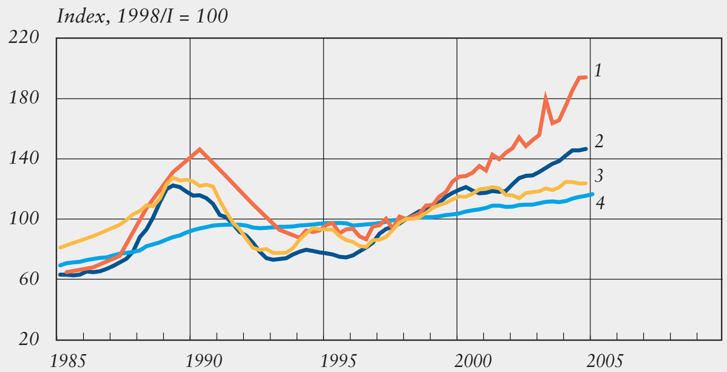
The structural change in housing demand that resulted from financial market liberalisation poses a major challenge for housing policy. Comparative international research indicates that living densities in Finland are rather high relative to other industrial countries, despite the fact that there is no shortage of suitable building land. In the days when housing loan repayment periods were short and the repayment schedules strict, young families did not have realistic opportunities to enlarge their homes at the time of life when they would most have needed to.

This situation is now changing. With a workable system of housing finance and the availability of long-term loans, a growing number of families with children are looking to move to a larger home at an earlier stage than was possible in the past. However, the changes in housing finance access will not be enough on their own to allow the realisation of this dream. Housing construction must be able to meet the challenge of higher demand if the latter is not simply to push up prices. Care must also be taken to ensure that the level of debt remains within manageable limits and the events of the late 1980s are not repeated.

The structural change in housing demand is reflected in the construction sector in the building of larger apartments. On the other hand, building investment since the start of the present decade has been at a lower level than in the early 1980s, for example. One of the bottlenecks restricting construction has been the availability of building land, particularly in the Helsinki area. The price of building land has risen at a worrying pace in recent years (Chart 3).

Chart 3.

Housing market prices 1985–2005



1. Building land
2. Housing units
3. Tender prices for construction contracts
4. Construction costs
Sources: Statistics Finland and Rapal Oy.

According to a survey by the Association of Finnish Local and Regional Authorities, the main problem with getting sufficient building land is the planning process.[1] In order to ensure future price stability, it is essential that local government planning authorities allocate sufficient land for new housing construction. There is no shortage of suitable building land in Finland; the problem is that local authorities lack incentives to allocate this land for building.

Present housing prices are, however, not unreasonable

Although supply bottlenecks (particularly the high cost of building land) have boosted the pace of housing price inflation, the Finnish housing market is not in the sort of overheated condition experienced at the end of the 1980s. Despite the undoubtedly high prices (in recent years, housing prices have risen faster than household incomes), calculations do not suggest that current prices are unrealistic from the point of view of Finnish households.

The following example serves to illustrate this point. A family buys an 80 square metre apartment, taking out a loan for 80% of the purchase price.[2] At a rough calculation, the annual financing expenditure (ie the sum of capital instalments and interest payments) after tax ten years ago would have been approximately 45% of the disposable annual income of the median household. At present, the financing expenditure for purchasing a comparable apartment would be 32% of the median household's annual income. Although housing prices have risen, the growth in household incomes, lower interest rates and longer loan periods have more than compensated for this change from the perspective of house buyers (Chart 4).

The present level of housing prices does not appear unreasonable.

Viewed from this angle, the present level of housing prices does not appear unreasonable, and the price rises of recent years are not particularly worrying. It is, however, worth bearing in mind that this calculation describes specifically the situation of the median household, not, for example, that of a household whose standard of housing depends on price trends in the Helsinki area.

In addition, comparisons between owner occupation and rental accommodation, for example with the help of arbitrage models, do not suggest that the level of housing prices is based on unrealistic price trend expectations.[3] The price of owner-occupied housing has risen more quickly than rents in recent years, but that is to be

[1] Laine, R, Tonttituotannon ongelmat kunnissa 2 ('Problems with acquisition of building land in local authorities 2'). Association of Finnish Local and Regional Authorities (2004).

[2] The average floor area of Finnish housing units at present is slightly under 80m^2.

[3] Arbitrage models suited to this sort of study are used in, for example, Poterba, J M, Weil, D N and Schiller, R, House Price Dynamics: The Role of Tax Policy and Demography. Brookings Papers on Economic Activity, 1991, No. 2, 143–203. Brookings Institution (1991).

expected at a time of falling interest rates. Low interest rates reduce to some extent the relative costs of owner occupation as an alternative to renting. Some major investors have recently sold their rental properties, some of which have been bought for owner occupation. This should not, however, be seen as a sign of imbalance in the market, but rather as a sign of the market's adaptability. Supply adjusts to the prevailing demand. Viewed as a whole, the supply of rental accommodation remains good.

Concern over rapid increase in housing debt

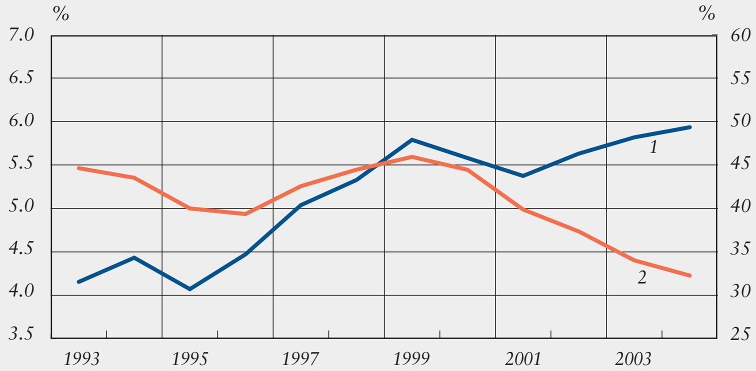
One characteristic feature of the transformation of the Finnish housing market in recent years has been the rapid pace of growth in housing debt. The stock of households' housing loans has grown over 10% annually since the start of the present decade. The proportion of households with housing loans has not significantly changed: at present slightly over one in four households in Finland has a housing loan. The growth in the housing loan stock visible in the statistics is due largely to an increase in the size of individual loans.

International comparisons show that Finland's situation is in no way unusual. For instance, the Bank for International Settlements (BIS) has noted that in many countries household indebtedness has in recent years grown much faster than incomes.[4] In

[4] Debelle, G, Household Debt and the Macroeconomy. BIS Quarterly Review March 2004. Bank for International Settlements (2004).

Chart 4.

Housing affordability indices



1. Price of one square metre of housing relative to the income of the median household (left-hand scale)
2. Financing expenditure on 80 square metres of housing relative to the income of the median household (right-hand scale)*
Sources: Statistics Finland and Bank of Finland.

** Financing expenditure equals the sum of estimated scheduled capital instalments and interest payments on a loan. Capital instalments are estimated by assuming that one square metre of housing has been purchased with 80% loan financing, that the loan is an equal-instalment loan and that the loan period grows steadily from 11 to 16 years between 1998 and 2004. Such a change in the loan period is consistent with the results of the study into savings and the use of credit published by the Finnish Bankers' Association in 2004 (see footnote 7 on page 36). Interest expenditure is estimated by applying to the loan sum the average rate of interest on new loans as presented in the Bank of Finland's financial market statistics minus a deduction for interest expenses for the appropriate rate of withholding tax.*

the euro area, only in recession-ridden Germany and Portugal was growth in the stock of housing loans less than 10% in 2004.

There are a number of factors behind the recent growth in indebtedness. Finland's economy has performed better than average for the euro area and household incomes have developed favourably, monetary policy has supported the low level of interest on credit, and stiffer competition between banks has led to lower margins on housing loans and longer maturities.

Low interest rates have significantly boosted demand for housing loans in Finland. As recently as 10 years ago the average rate of interest on new housing loans was over 8%, whereas the average at present is slightly over 3%. The present situation is very unusual. Measured by nominal interest rates, housing loans are cheaper at present than at any time during the 150 years for which credit interest rate data is available.[5] Most of the fall in housing loan interest rates is attributable to the change in the general level of interest rates. Another not insignificant factor, however, is the narrowing of interest rate margins applied by the banks. Credit customers have thus benefited from the stiffening competition between banks.

Another factor of major significance to the indebtedness trend has been the lengthening of loan repayment periods. According to data gathered by the Finnish Bankers' Association, average maturities on new loans have grown from 11 to 16 years since the second half of the 1990s, and ever longer housing loans are still coming on to the market. The lengthening of loan periods has made it possible for borrowers to take on much larger housing loans than was possible before, as longer loan maturities mean smaller repayments of loan capital each year.

Longer loan periods have enabled borrowers to take on much larger housing loans.

At present, loan losses in Finland from housing debt are small. We know from experience, however, that the position of indebted households could deteriorate quickly if there were a sudden change in economic conditions.

Some idea of the debt burden from the stock of housing loans in the present situation can be estimated by measuring interest payments and capital instalments relative to household incomes. According to the estimate presented here, the current debt burden on households from servicing the stock of housing loans is on average the same relative to household incomes as it was 10 years ago (Chart 5).

In estimating the debt burden it is essential to also take account of the possibility of a rise in interest rates. This is particularly important in Finland, as Finnish households fix their housing loans to floating interest rates more than households in other euro area countries. In February 2005, 98% of new housing

[5] Autio, J, Korot Suomessa 1862–1952 ('Interest rates in Finland 1862–1952'). Bank of Finland Discussion Papers 7/96. Bank of Finland (1996).

Despite the recent interest rate stability in the euro area, Economic and Monetary Union does not rule out the possibility of a rapid rise in interest rates.

loans taken out in Finland were floating rate loans (fixed to at most one-year market rates), the highest percentage in the euro area. In Germany, only 17% of new housing loans were floating rate loans.

Despite the recent stability of interest rates in the euro area, Economic and Monetary Union does not rule out the possibility of a rapid rise in interest rates. In the United States, rates have already begun to rise. The 3-month market rate has risen almost 2 percentage points since summer 2004, and the market expects a further rise of 1 percentage point over the course of the next 12 months. If interest rates in the euro area were to imitate the US situation and rise 3 percentage points, the burden on Finnish households from servicing the stock of housing loans would become much heavier. If this were to occur, the housing debt burden index would reach almost the same level as during the worst years of recession in the early 1990s (Chart 5).[6]

In an environment of open financial markets the crucial decisions on indebtedness are taken by the bank and the borrower when negotiating the loan. From the perspective of the housing loan market and housing price trends, the vital issue is whether banks and their customers pay enough attention to the risks when agreeing loans. In 2004, the Finnish Bankers' Association asked credit customers whether they had taken account of a possible rise in the interest rate on housing loans and the accompanying increase in loan servicing costs.[7] A little over 70% of

[6] These calculations assume a fixed loan repayment period. The annual debt-servicing expenditure can be significantly reduced by extending the repayment period.

[7] Säästäminen ja luotonkäyttö ('Savings and the use of credit'). Finnish Bankers' Association (May 2004).

Chart 5.

Financial burden on households from servicing the housing loan stock*

1. *Loan servicing expenditure / income*
2. *Loan servicing expenditure / income after an interest rate rise of 3%*
3. *Capital instalments / income*
4. *Interest expenditure / income*
5. *Interest expenditure / income after an interest rate rise of 3%*

Sources: Statistics Finland and Bank of Finland.

** Estimates based on Bank of Finland financial market statistics, not on Statistics Finland data on the structure of household expenditure.*

respondent households indicated they had. This figure is worryingly small. When deciding to take out a loan, every housing loan customer should have a clear plan for servicing their debt in the event of a rise in interest rates. The banks have an important role to play in producing these types of calculation.

At present, government influences the operations of the loan market in Finland through both the tax-deductibility of interest payments and the loan guarantee system. The tax-deductibility of interest payments was considerably reduced during the 1990s, and this helped to restore the health of the loan market. The government loan guarantee system was established in 1996 to reduce the need for personal guarantees at a time of deep recession in the Finnish housing market. At present, around half of all households buying their first house take out a government guarantee for their loan.

Both the government guarantee system and the tax-deductibility of interest payments on loans support families in buying their homes. At the same time, however, they can also encourage the taking on of too much debt. With the banks competing fiercely for housing loan customers and housing-related indebtedness growing at a rapid pace, there is a real danger of borrowers overreaching themselves.

Although there are risks attached to the present trend in housing debt, the transformation of the Finnish housing loan market over the past few years is nevertheless a welcome development. In the past, loans were small and were paid off immediately the opportunity presented itself. In the new situation, loans are taken out for longer periods and the repayment schedule can be adjusted more flexibly to accommodate the needs of individual households. Risk management should be included as a key component in planning the repayment schedule.

Key words: households, housing, indebtedness

Weak innovativeness in EU forms a barrier to competitiveness

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The competitive position of Europe vis-à-vis the United States has weakened since the mid-1990s. The underlying reason for differences in labour productivity is that the use of information technology in the EU is not as widespread as in the United States. Problems in competitiveness thus relate to the EU's weaker capacity to innovate and to make better use of innovations.

The structural changes in the world economy have disclosed the weaknesses of the European economy. The information technology boom at the end of the 1990s left the EU lagging well behind US growth rates. Industrial specialisation, product differentiation and production strategies based on a high level of sophistication, which provided a competitive advantage in the 1970s and 1980s, have no longer been able to meet the challenge posed by digital technology.

Advances in information and communication technology (ICT) have changed production processes and thereby altered the nature of competitive factors. The manufacture of information technology products has become broken down into various components whose production can be easily outsourced. In this context, production costs are joined as key competitive factors by strategic and organisational innovations, in other words, the extent to which traditional industries and services can efficiently harness new technology and research knowledge.

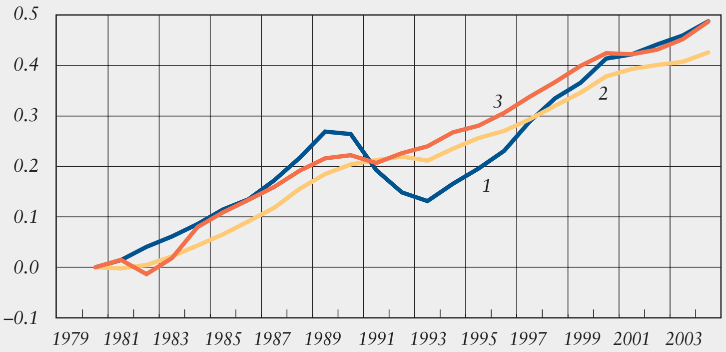
Both capital and labour productivity can be enhanced through technological innovations. This is particularly important in Europe now that Asian countries, too, are becoming increasingly competitive. Productivity-enhancing competitive factors are also important for Europe because of population ageing, which will reduce labour supply and increase economic burdens and uncertainty. Europe's growth prospects will therefore depend increasingly on its potential to foster productivity growth.

EU unable to keep up with pace of US growth

Europe's weak competitive position is reflected in the difference in standards of living vis-à-vis the United States. Living standards in the EU are about one third lower than in the United States, as measured by purchasing-power-adjusted per capita GDP. About one third of the productivity gap is caused by lower labour productivity and two thirds by weaker employment in Europe. The standard-of-living gap with the United States has widened since the start of the 1980s by a total of about 6 percentage points, measured by the cumulative change in real GDP per inhabitant (Chart 1). During this period, real per capita GDP increased in Finland by the same amount as in the United States, despite the recession.

Chart 1.

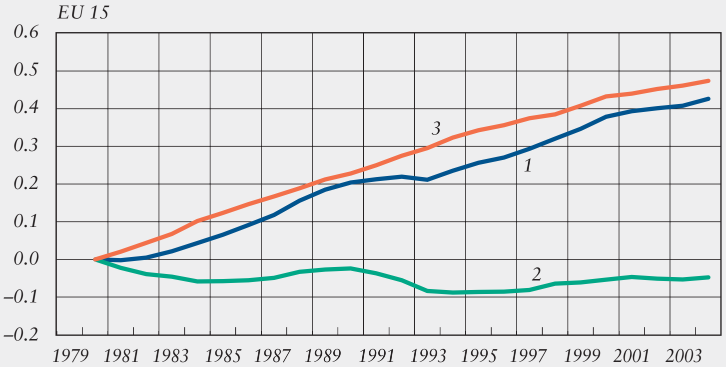
GDP per inhabitant: cumulative change (log.) since 1980*



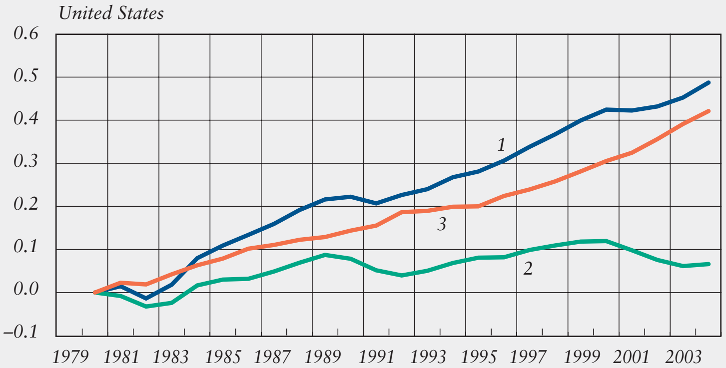
1. Finland
2. EU
3. United States
** Calculated on the basis of change in purchasing-power-adjusted real GDP.*
Source: Groningen Growth and Development Centre.

Chart 2.

GDP components: cumulative change (log.) since 1980



1. GDP per inhabitant
2. Working hours per inhabitant
3. GDP per working hour
Source: Groningen Growth and Development Centre.



1. GDP per inhabitant
2. Working hours per inhabitant
3. GDP per working hour
Source: Groningen Growth and Development Centre.

Europe's deteriorating living standards compared with the United States were due until the mid-1990s to the EU's weak employment situation. Subsequently, labour productivity has also developed more sluggishly in the EU. The EU's underperformance in employment compared with the United States is reflected in both a decline in the total number of hours worked and a trend reduction in working hours per inhabitant. A comparison of developments since the start of the 1980s clearly shows that productivity was growing faster in the EU than in the United States as late as the 1980s. In contrast, employment has been weaker in the EU throughout the entire period (Chart 2).

Differences in productivity growth reflect the competitive edge of the United States in digital production technologies.

Industrial productivity in the EU declined compared with the United States by just over 10 percentage points since the mid-1990s to stand at around 80% of US productivity by the beginning of the present decade. In 2001, industrial productivity in Finland was at broadly the same level as in the United States. Considering the economy as a whole, the productivity gap between the EU and the United States has also widened. It was at its lowest level in the middle of the 1990s, when, according to European Commission calculations, EU productivity equalled 97% of US productivity. In 2002, EU productivity stood at just under 90% of US productivity and, as estimated by the Commission, the productivity gap has not narrowed in the years since.[1]

Table.

Labour productivity growth

	1990–1995		*1995–2002*	
	EU 15	*United States*	*EU 15*	*United States*
Total economy	*2.3*	*1.2*	*1.8*	*2.5*
ICT-producing industries	*6.8*	*7.2*	*8.6*	*9.3*
manufacturing	*11.6*	*15.1*	*16.2*	*23.5*
services	*4.4*	*2.4*	*5.9*	*2.7*
ICT-using industries	*2.3*	*1.6*	*1.8*	*4.9*
manufacturing	*2.7*	*0.8*	*2.0*	*2.6*
services	*2.0*	*1.9*	*1.7*	*5.3*
Non-ICT industries	*1.9*	*0.4*	*1.1*	*0.2*
manufacturing	*3.3*	*2.3*	*2.1*	*1.2*
services	*0.8*	*–0.3*	*0.5*	*0.2*
other	*3.4*	*1.4*	*2.1*	*0.4*

Source: Groningen Growth and Development Centre, 60-Industry Database.

IT use in the EU less intensive than in the United States

Labour productivity was still increasing annually by around 2% on average in the EU in the 1980s and the first half of the 1990s. Since 1995, productivity growth has slowed to 1.8% on average. In the United States, over the same period, it has accelerated to around 2.5%.

Differences in productivity growth reflect the competitive edge of the United States in digital production technologies. US productivity growth was particularly rapid in ICT production (Table). This was primarily due to the manufacture of semiconductors and computers. However, another key contribution to productivity differences was from ICT-using services, in which productivity growth accelerated strongly in the United

[1] Employment and productivity differences between the EU and the USA. Information note for members of the Economic Policy Committee, Brussels, II-A-I/W D (2004).

States, while decelerating in the EU at the same time. This indicates more widespread use of technological innovations in the United States than in Europe. Underlying this is, above all, robust productivity growth in US wholesale and retail trade, as opposed to very sluggish growth in corresponding EU sectors. The EU, in turn, has had a competitive advantage in traditional industrial sectors. Productivity has grown more rapidly in the EU than in the United States in sectors making only limited use of information technology.

The key role of ICT in explaining productivity gaps naturally leads to seeking the reasons for these differences in diverging patterns of IT investment. A clear positive correlation has indeed been observed between ICT investment and productivity growth. According to OECD calculations, productivity increased in the 1990s considerably faster than in the 1980s in countries which diverted a higher than average share of investment into ICT.[2] In the EU as a whole, the GDP share of ICT investment began to decline in the early 1990s, and even a slight subsequent increase has not narrowed the gap vis-à-vis the United States (Chart 3).

Estimates suggest that information technology must reach a certain level before it can clearly enhance productivity. A time lag emerges particularly in the rate of diffusion of information technology skills across sectors. In principle, productivity gains may be achieved after complementary software investment and investment in skills development, organisational changes and incentive schemes have reached sufficiently high levels.[3] On the other hand, it has also been suggested that the high

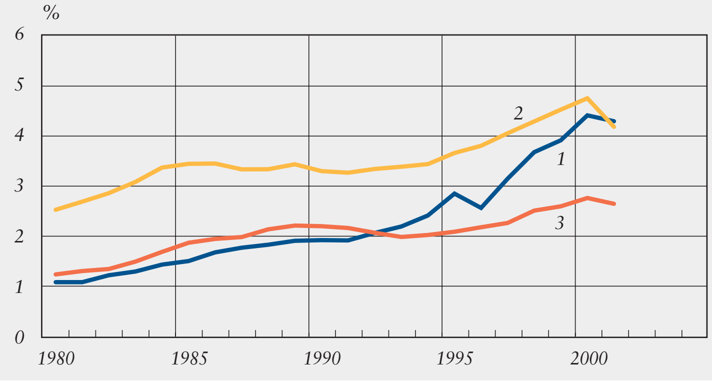
Use of technological innovations is more widespread in the United States than in Europe.

[2] ICT and Economic Growth, Evidence from OECD Countries, Industries and Firms, Information and Communications Technologies. OECD (2003).

[3] O'Mahony, M and van Ark, B, EU productivity and competitiveness: An industry perspective, Can Europe resume the catching-up process? Enterprise publications. European Commission (2003).

Chart 3.

GDP ratio of ICT investment*



1. Finland
2. United States
3. EU 15 excl. Luxembourg
**Computers, communication equipment and software.*
Sources: Timmer, M, Ypma, G and van Ark, B, IT in the European Union: Driving Productivity Divergence? Research Memorandum GD-67. University of Groningen (2003).

There are many barriers to the sufficient use of ICT.

number of skilled workers adopting information technology at the early stages of development helped to support ICT diffusion to other sectors in the United States. This may have been reflected especially in the increase in US financial sector productivity. Information technology has also enabled the retail trade to make use of economies of scale through discount store networks.

Thus, there is good reason to argue that it will only be a matter of time before EU companies catch up with US productivity performance. The technical basis for this already exists, as ICT networks have already spread to the bulk of corporate activities, which will in turn further boost productivity and business. Qualitative improvements in ICT products and services will also lead to falling prices and further upgrades in applications in the future.

The fostering of productivity growth and competitiveness in the EU is, however, obstructed by several problems that are hampering the sufficient use of ICT and its dissemination across sectors. Such problems relate to financing, market regulation and attitudes, but above all to innovativeness.

EU competitiveness is stifled by weak innovation performance

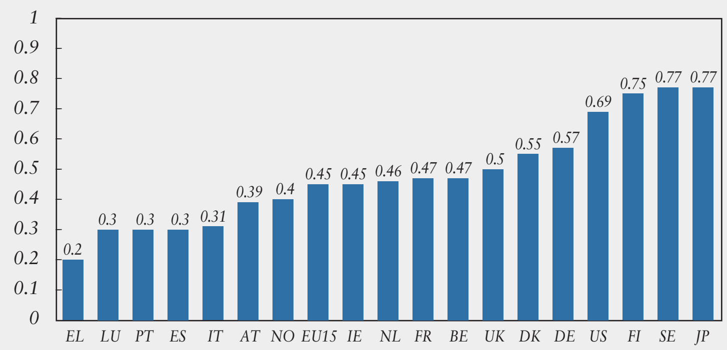
In order to function effectively, innovativeness requires a certain threshold level in education, skills intensity and other human capital, innovation finance and aspects related to information exchange. Using variables measuring these factors, the European Commission has calculated a Summary Innovation Index (SII)[4], which provides a concise overview of several of the factors affecting innovation.

Measured by this index, the EU lagged clearly behind the United States in terms of innovativeness in 2004 (Chart 4). Of the old EU

[4] Trend Chart, Innovation Policy in Europe: European Innovation Scoreboard 2004. European Commission (2004).

Chart 4.

Summary Innovation Index*



**The Summary Innovation Index provides a concise overview of several factors affecting innovation, such as educational level, skill intensity, human capital, innovation finance and aspects related to information exchange. Source: European Commission.*

member states, Portugal and Spain were particularly far from the EU average, while Finland and Sweden were the only member states to perform better than the United States. Their performance was especially good according to the indicator measuring knowledge creation. For instance, investment in research and development and the number of patents relative to population were both higher than average in Finland and Sweden. In addition, it is worth mentioning that, according to human resource indicators, the strengths of the EU compared with the United States were the relative share of technology graduates and the relative share of employees in high-tech production. In contrast, participation in tertiary education in the EU was on the whole clearly weaker than in the United States.

The information covered by the Summary Innovation Index is in part subjective, and there are many components on which information is not available from the United States. The picture conveyed by this index is, however, similar to that provided by an analysis of R&D intensity. The EU is clearly lagging behind the United States in terms of resources input in research and product development. In this area, the EU 15 countries in particular were discernibly weaker than the United States.

Barriers to innovation also arise from poor access to finance for small and medium-sized companies. According to Commission estimates, 15–20% of small and medium-sized EU companies consider access to funding sources as the main obstacle to their business.[5] Access to finance varies considerably by country and depends more on countries' financial systems and practices than on company profiles. In general, small and medium-sized companies are, however, more dependent on bank finance than other companies, whereby lack of collateral is often perceived as constituting a barrier to business activities.

The EU is lagging well behind the United States in terms of resources input in research and product development.

… and failure to take full advantage of innovations

Productivity comparisons showed that the productivity gap of the EU relative to the United States is particularly pronounced in ICT-using services. One explanation for this difference is that US companies are better in reshaping their organisations and management methods and thereby more capable of making efficient use of new technology. Of key importance are new business models enabling transformation of innovations into new markets. This hypothesis is backed by empirical evidence from the European Commission's preliminary analysis. Accordingly, the picture emerging from the Summary Innovation Index of countries' relative innovation performance is very different from that provided by the

[5] Benchmarking Enterprise Policy: Results from the 2003 Scoreboard. European Commission (2003).

To boost competitiveness, equally important to creating innovations is to make use of knowledge produced elsewhere.

indicator for non-technical change in the economy. Many of the countries that performed well on the Summary Innovation Index – such as Finland and Sweden –were not doing well at all in evaluations based on the indicator for non-technical change.[6]

To boost competitiveness, equally important to creating innovations is to make use of knowledge produced elsewhere. On the basis of Commission data, it appears that sectors differ widely in respect of the importance given to innovation. Within the EU, new knowledge was of major strategic importance in only a few sectors, such as engineering, electronics and chemical industries. Strategies based on using existing knowledge were of key importance in the transport equipment sector. In contrast, innovativeness is, on balance, limited in other industries. Of service sectors, only in computer-linked service production and leasing and business services was extensive use made of innovations created elsewhere.

Innovation strategies also differ by country in terms of whether innovations have a strategic importance from the point of view of production, whether existing knowledge is made use of directly or whether it is adapted to better meet company needs. An overall assessment of the significance of innovations in production in the EU shows that innovations and new research knowledge have less importance for corporate strategies than have utilisation and adaptation of existing knowledge to productive needs. However, a comparison between Germany, Spain, France and Finland presented in the Commission analysis shows clearly that Finnish companies focus more strongly on creating strategic information than companies in the other countries. German companies adapt knowledge created elsewhere, while Spanish companies make direct use of it.

Challenges to European competitiveness

While improvements in competitiveness and related productivity growth are highlighted as key objectives for the EU, estimates of Europe's long-term growth prospects have turned increasingly cautious. Weak employment development in recent years and deceleration in productivity growth have added to pessimism over future growth potential, which will be further impaired by population ageing from the end of the 2010s.

The analysis presented here shows that both limited production of new knowledge and problems in applying the fruits of research are underlying factors behind Europe's weak productivity performance. As collective means to promote competitiveness, in addition to stronger ICT investment and innovation, the Kok report and Finland's globalisation report both emphasise the importance

[6] See footnote 4 on page 42.

of increasing competition, developing the service sector, ensuring public sector productivity and providing incentives for entrepreneurial activity.[7] The best incentive for innovation can be provided by fostering competition in product markets, which will in turn encourage full exploitation of ICT. Increasing competition in the traditional service sector is a key challenge for both Finland and Europe as a whole. The basic problem faced by Europe's innovation policy is the scarcity of research funding. While Finland's investment in research and development is by international standards strong, its narrow focus poses a clear problem.

Key words: competitiveness, innovations, productivity

[7] Facing the challenge – The Lisbon strategy for growth and employment. Report from the High Level Group chaired by Wim Kok, November 2004. Office for Official Publications of the European Communities (2004); Osaava, avautuva ja uudistuva Suomi, Suomi maailmantaloudessa – selvityksen loppuraportti, Valtioneuvoston kanslian julkaisusarja 19/2004 (Final report of the Report on Finland in the Global Economy: Competence, openness and regeneration as Finland's globalization strategy, Prime Minister's Office publication series 19/2004). Prime Minister's Office (2004).

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Discussion Papers

ISSN 0785-3572 (print)
ISSN 1456-6184 (online)

An intuitive guide to wavelets for economists
Patrick M Crowley
1/2005
ISBN 952-462-188-6, print
ISBN 952-462-189-4, online

Key words: statistical methodology, multiresolution analysis, wavelets, business cycles, economic growth

Wavelet analysis, although used extensively in disciplines such as signal processing, engineering, medical sciences, physics and astronomy, has not yet fully entered the economics discipline. In this discussion paper, wavelet analysis is introduced in an intuitive manner, and the existing economics and finance literature that utilises wavelets is explored. Extensive examples of exploratory wavelet analysis are given, many using Canadian, US and Finnish industrial production data. Finally, potential future applications for wavelet analysis in economics are also discussed and explored.

Ageing, interest rates, and financial flows
Tuomas Saarenheimo
2/2005
ISBN 952-462-190-8, print
ISBN 952-462-191-6, online

Key words: ageing, real interest rates, financial flows, public pension systems

The median age of the global population is presently increasing by nearly three months every year. Over the next couple of decades, almost every country in the world is set to experience an unprecedented increase in the share of elderly people in the population. This development has the potential to fundamentally affect the functioning of economic and financial systems globally.

This study concentrates on the effects of ageing on the evolution of global interest rates and financial flows. The study uses a 73-cohort general equilibrium overlapping generations model of five major economic areas (USA, EU 15, Japan, China, and India). Utilising actual population data and UN population projections, the model yields predictions for major economic and financial variables up to 2050.

The model predicts a decline in global equilibrium real interest rates over the next two decades, but the size of the decline depends crucially on the future evolution of public pension benefits. If the present generosity of pension systems is maintained – leading to a steep increase in the cost of pension systems – the maximum decline of interest rates is projected to be about 70 basis points from present levels. If pension benefits are reduced to offset the increasing cost pressures, the decline in global equilibrium interest rates can be much larger, while increases in the retirement age work in the opposite direction.

The results do not anticipate the 'financial market meltdown' – a collapse in asset prices associated with the retirement of the baby-boomers – predicted by some. On the contrary, bond prices should fare fairly well over the next three decades. The main reason for this is that increasing life expectancy at retirement creates a need for higher retirement saving – in the future, people will want to retire wealthier than they do today. This trend more than offsets the negative effect of the retirement of baby-boomers on asset demand.

Relationship lending and competition: Higher switching cost does not necessarily imply greater relationship benefits
Timo Vesala
3/2005
ISBN 952-462-192-4. print
ISBN 952-462-193-2, online

Key words: relationship lending, switching cost, banking competition

This paper studies relationship lending in a framework where the cost of switching banks measures the degree of banking competition. The relationship lender's (insider bank's) informational advantage creates a lock-in effect, which is at its height when the switching cost is infinitesimal. This is because a low switching cost gives rise to a potential adverse selection problem, and outsider banks are thus reluctant to make overly aggressive bids. This effect gradually fades as the magnitude of the switching cost increases, which de facto reduces the insider bank's profits. However, after a certain threshold in the switching cost, the insider bank's 'mark-up' begins to increase again. Hence, relationship benefits are a non-monotonous (V-shaped) function of the switching cost. The 'dynamic implication' of this pattern is that relationship formation should be more common under extreme market structures, ie when the cost of switching banks is either very low or sufficiently high. Recent empirical evidence lends support to this prediction.

BOFIT Discussion Papers

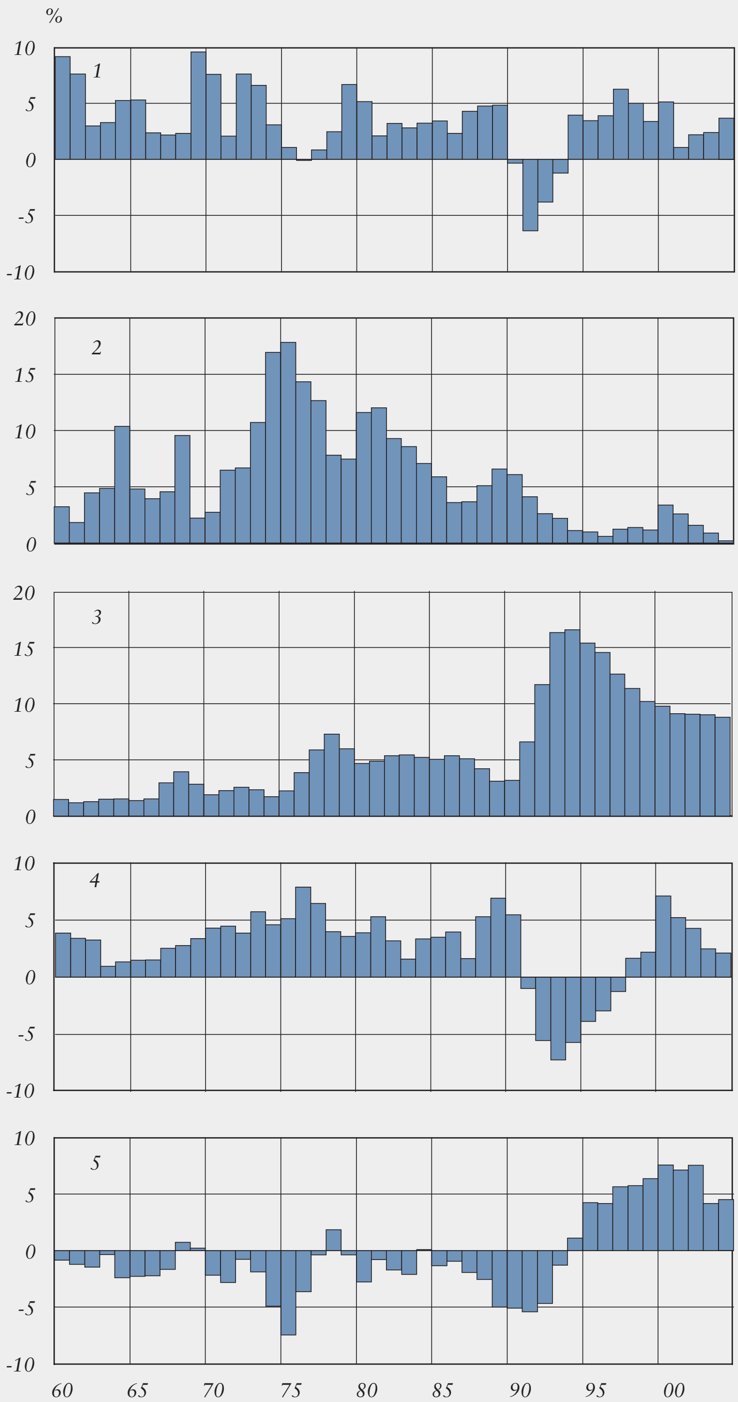
ISSN 1456-4564 (print)
ISSN 1456-5889 (online)

Reforms and Confidence
Pertti Haaparanta – Jukka Pirttilä
1/2005
ISBN 951-686-988-2, print
ISBN 951-686-989-0, online

We examine the choice of economic reforms when policymakers have present-biased preferences and can choose to discard information (maintain confidence) to mitigate distortions from excess discounting. The decisions of policymakers and firms are shown to be interdependent. Confident policymakers carry out welfare-improving reforms more often, which increases the probability that firms will invest in restructuring. While policymakers in different countries can be equally irrational, the consequences of bounded rationality are less severe in economies with beneficial initial conditions. We also examine how present-biased preferences influence the choice between big bang versus gradualist reform strategies. Our findings help explain differences in economic reform success in various countries.

Charts

1. Finland: key economic indicators



GDP, volume change from previous year

Consumer prices, change from previous year

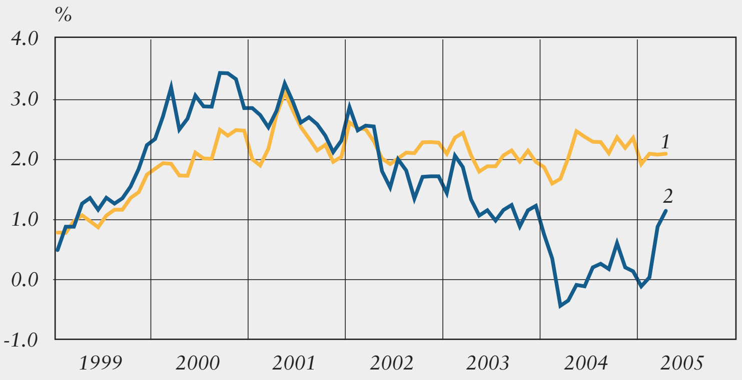
Unemployment rate

General government fiscal position, % of GDP

Current account, % of GDP

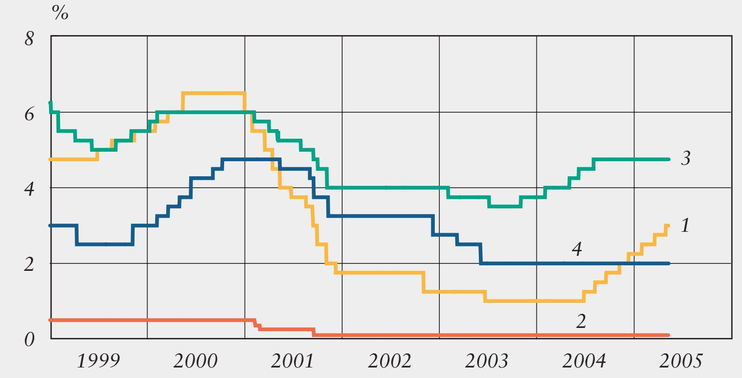
Sources: Statistics Finland and Bank of Finland.

2. Price stability in the euro area and Finland



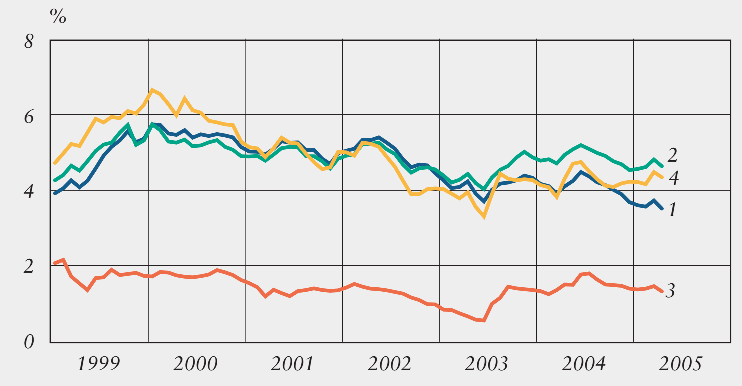
Harmonised index of consumer prices, 12-month change, %
1. Euro area
2. Finland
Sources: Eurostat and Statistics Finland.

3. Official interest rates



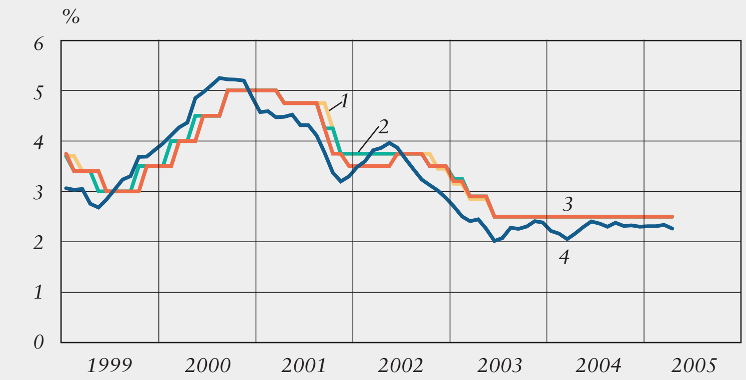
1. USA: fed funds target rate
2. Japan: discount rate
3. United Kingdom: repo rate
4. Eurosystem: main refinancing rate/minimum bid rate
Source: Bloomberg.

4. International long-term interest rates



Yields on ten-year government bonds
1. Finland
2. United Kingdom
3. Japan
4. United States
Source: Reuters.

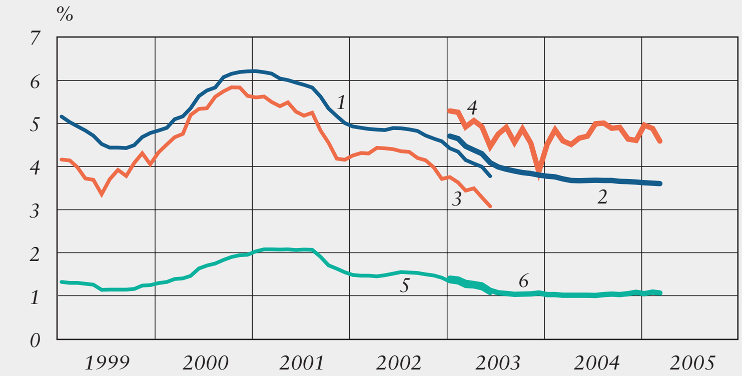
5. Bank reference rates in Finland and 12-month Euribor



1. Nordea prime at the end of the month
2. Sampo prime at the end of the month
3. OKOBANK group prime at the end of the month
4. 12-month Euribor

Sources: Banks and ECB.

6. Average lending and deposit rates

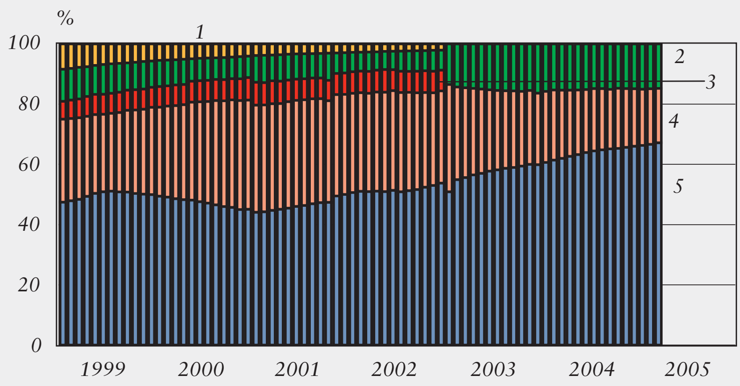


1. Banks' stock of loans
2. MFIs' stock of loans
3. Banks' new loans
4. MFIs' new loans
5. Banks' stock of deposits
6. MFIs' stock of deposits

Source: Bank of Finland.

Data collection changed as of 1 January 2003. Under the new system MFIs include both deposit banks and other credit institutions.

7. Stock of bank lending by interest rate linkage

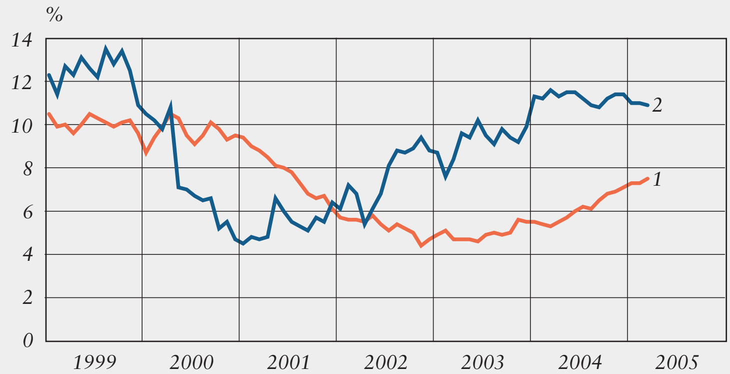


1. Linked to base rate
2. Linked to other rates (as of 2003 includes loans linked to base rate and fixed-rate loans)
3. Fixed-rate
4. Linked to reference rates of individual banks (prime rates, etc)
5. Linked to Euribor

Source: Bank of Finland.

Data collection changed as of 1 January 2003.

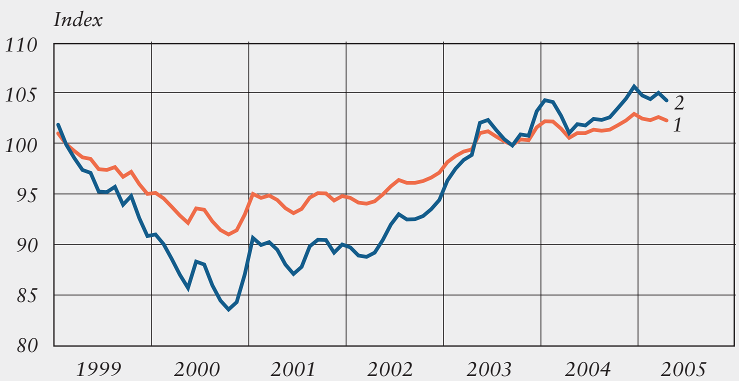
8. MFI loans to private sector



12-month change, %
1. *Loans by euro area MFIs to euro area residents*
2. *Loans by Finnish MFIs to euro area residents*

Sources: European Central Bank and Bank of Finland.

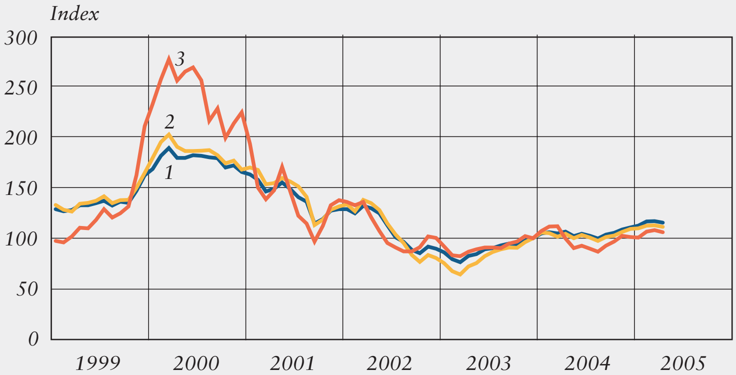
9. Competitiveness indicators for Finland



1999 Q1 = 100
Based on trade-weighted exchange rates.
An upward movement of the index represents a weakening in Finnish competitiveness.
1. *Narrow competitiveness indicator including euro area countries*
2. *Narrow competitiveness indicator*

Source: Bank of Finland.

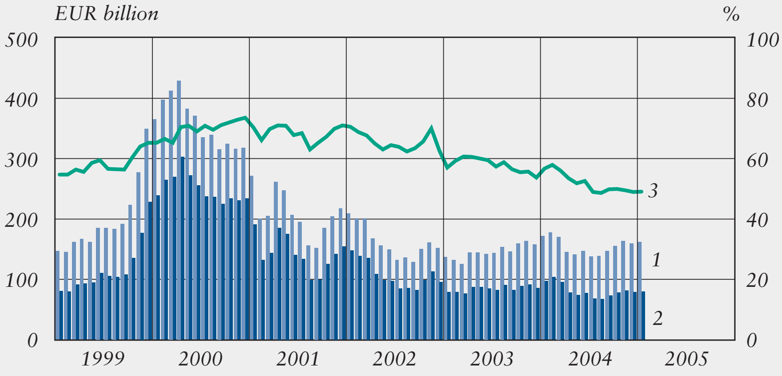
10. Selected stock price indices in the euro area



31 December 2003 = 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.

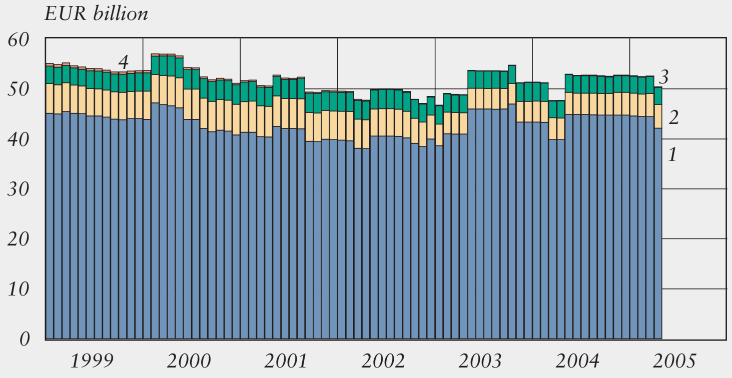
11. Listed shares in Finland: total market capitalisation and non-residents' holdings



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).

12. Bonds issued in Finland

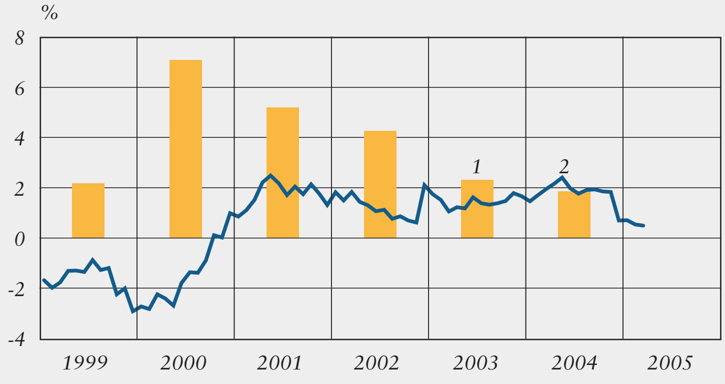


End-month stock

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

Source: Statistics Finland.

13. Public sector balances in Finland

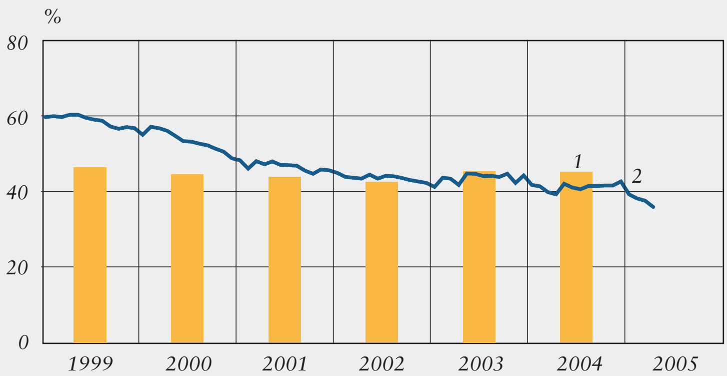


% of GDP

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

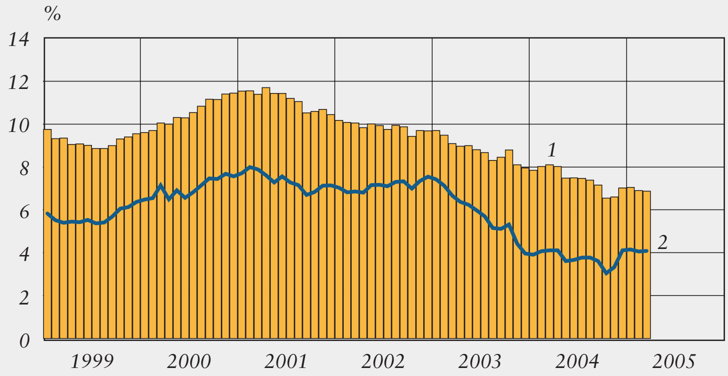
Sources: State Treasury, Statistics Finland and Bank of Finland.

14. Public debt in Finland



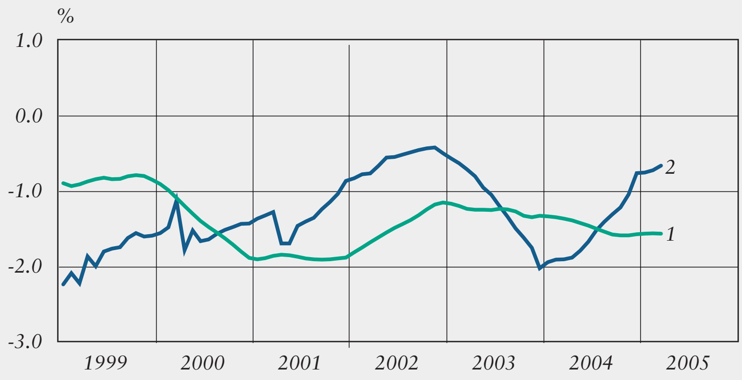
% of GDP
1. General government debt
2. Central government debt, 12-month moving total
Sources: State Treasury, Statistics Finland and Bank of Finland.

15. Finland: goods account and current account



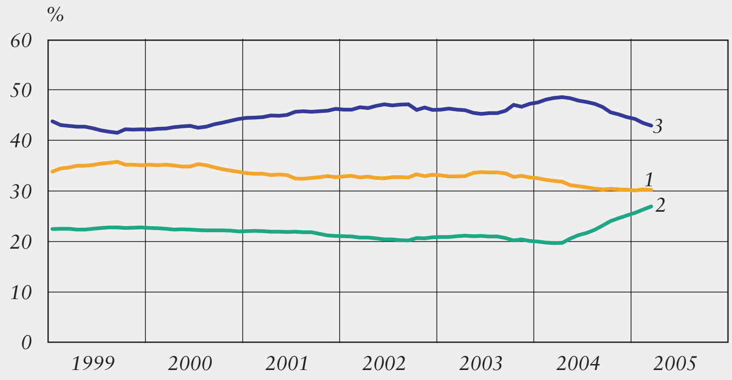
12-month moving totals, % of GDP
1. Goods account, fob
2. Current account
Source: Bank of Finland.

16. Finland: services account and income account



12-month moving totals, % of GDP
1. Services account (trade in goods, fob)
2. Income account
Source: Bank of Finland.

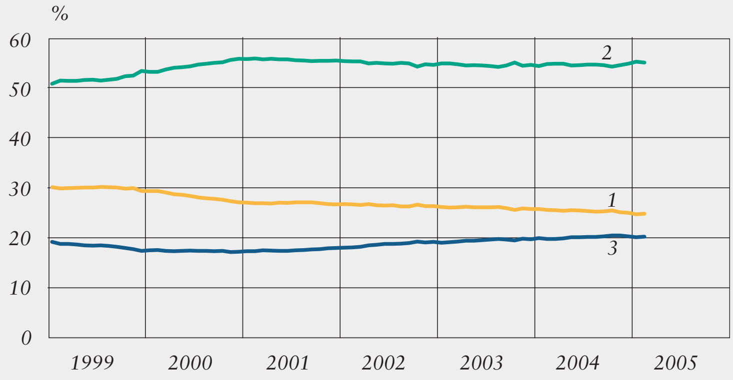
17. Regional distribution of Finnish exports



12-month moving totals, percentage of total exports
1. *Euro area*
2. *Other EU member states*
3. *Rest of world*

Sources: National Board of Customs and Statistics Finland.

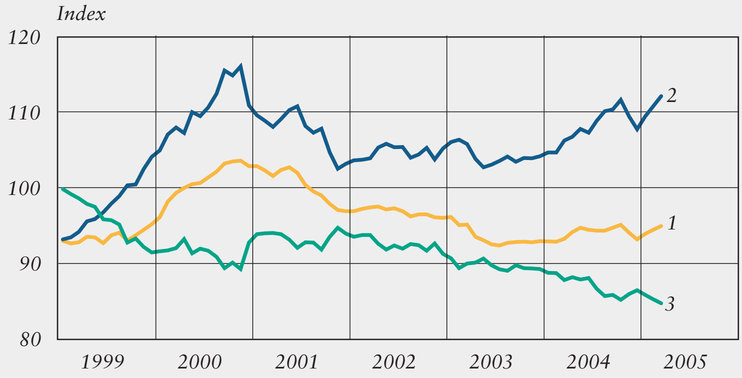
18. Finnish exports by industry



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.

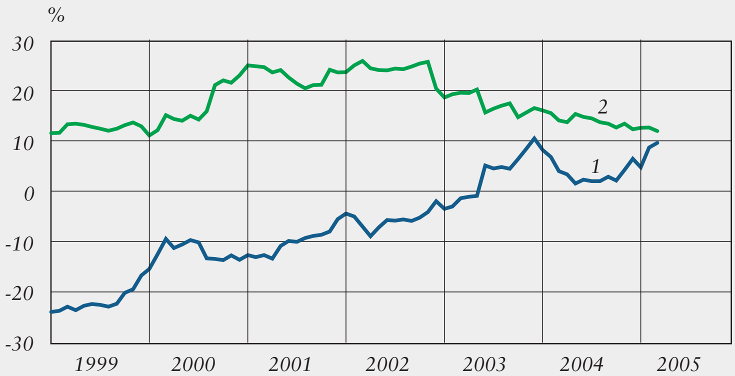
19. Finland's foreign trade: export prices, import prices and terms of trade



1995 = 100
1. *Export prices*
2. *Import prices*
3. *Terms of trade*

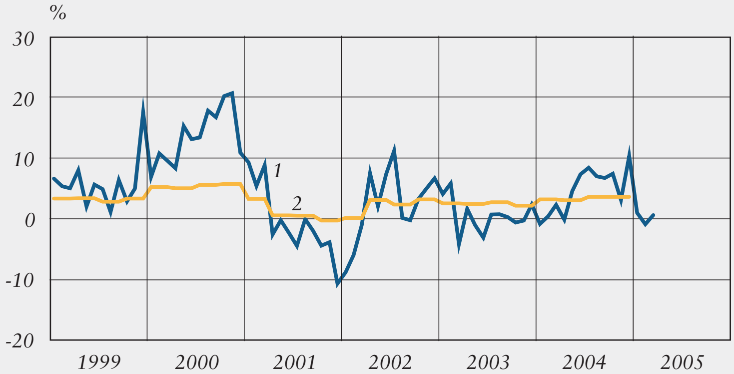
Source: Statistics Finland.

20. Finland's net international investment position



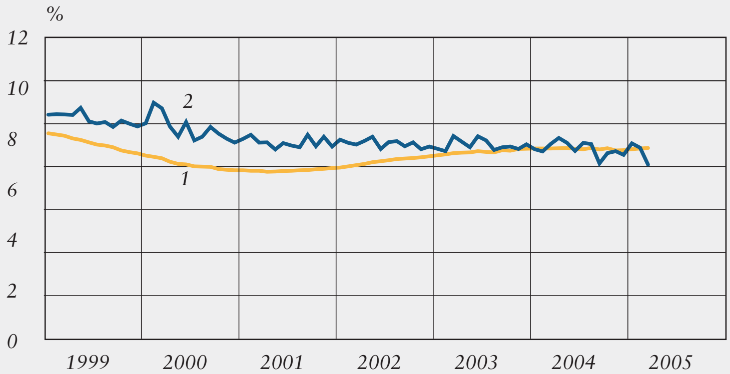
% of GDP
1. Net international investment position excluding equity items
2. Net outward direct investment
Sources: Bank of Finland and Statistics Finland.

21. Finland: GDP and industrial production



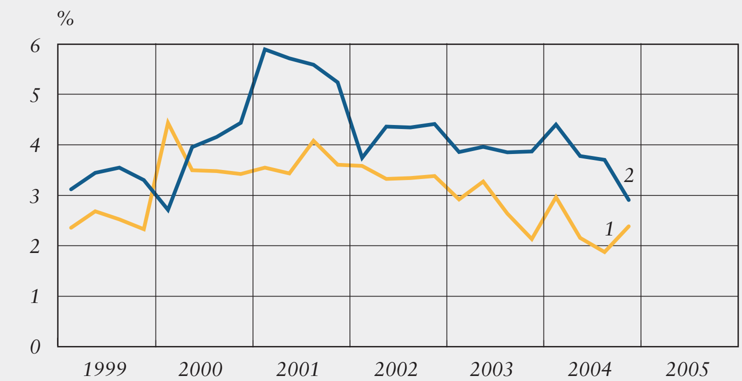
Percentage change from previous year
1. Industrial production
2. Gross domestic product
Source: Statistics Finland.

22. Unemployment rate in the euro area and Finland



1. Euro area
2. Finland
Sources: Eurostat, Statistics Finland and Bank of Finland.
Data seasonally adjusted.

23. Hourly labour costs in the euro area and Finland

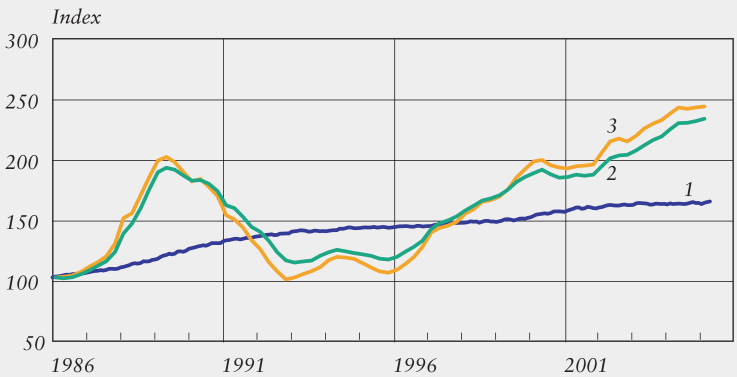


Whole economy excl. agriculture, public administration, education, health and unclassified services.

Percentage change from previous year
1. *Euro area*
2. *Finland*

Source: Eurostat.

24. Selected asset prices in Finland



January 1985 = 100
1. *Consumer prices*
2. *Housing prices*
3. *Two-room apartments (secondary market; debt-free price per m²)*

Source: Statistics Finland.

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26 April 2005

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