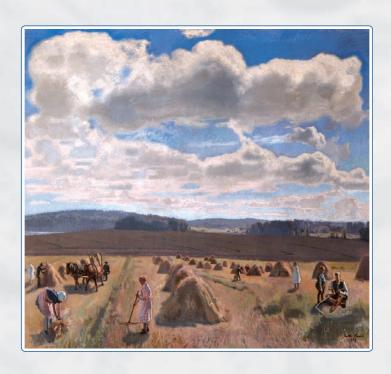
BANK OF FINLAND BANK OF FINLAND

2 • 2007



Monetary policy and economic outlook
Financial stability in Finland
Crisis management in the financial sector
Globalisation and the challenges for
central banks' financial statistics



Contents

Monetary policy and
economic outlook1
Financial stability in
Finland15
Sampa Albanana and
Sampo Alhonsuo and
Veli-Matti Lumiala
Crisis management in
the financial sector33
7 77 '
Laura Vajanne
Globalisation and the
challenges for central banks'
financial statistics41
Publications 47
ChartsC1

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The cover portrays the work of Antti Favén 'Elonkorjuu' (1929).

Monetary policy and economic outlook

7 June 2007

World economy and trade continue to grow strongly

The world economy has continued to grow strongly through the first half of 2007. In the present sustained upward cycle, growth has been concentrated increasingly in the emerging economies (Chart 1). As well as Asia - particularly China and India - there has also been strong growth in the former socialist countries of Eastern Europe, such as Russia and the new member states of the European Union. Many African and South American economies have also benefited from the strong world growth and brisk global trade. At the same time, the wealth gap between low-income countries and the old industrial economies has been gradually narrowing.

During the early phase of the global expansion, inflationary pressures in the main economic regions remained low for an extended period. Global competition in labour and commodity markets and credible

monetary policies have contained rises in labour costs and the prices of final goods in the old industrial economies. In emerging economies, institutional reforms and more credible economic policies have helped to stabilise prices.

Viewed from a monetary policy angle, the challenges facing the world economy have recently increased. Rapid growth has led to capacity bottlenecks and consequent inflationary pressures. Monetary policy tightening began from exceptionally low interest rates, first in the United States in 2004 and then the euro area in 2005. In the emerging economies, the prevention of overheating in the Chinese and Indian economies has recently become more clearly the key objective of economic policy.

Capacity constraints and the environment impose limits on growth

Demand pressures caused by the sustained period of strong growth in





the world economy have already been pushing up global commodity prices for a number of years (Chart 2). Early this year, energy prices dipped below the heights of 2006, but they have since risen again and are now more than twice the level at the turn of the millennium. The market price of oil has fluctuated dramatically this year, partly due to supply shocks, but also in part as a result of weather conditions.

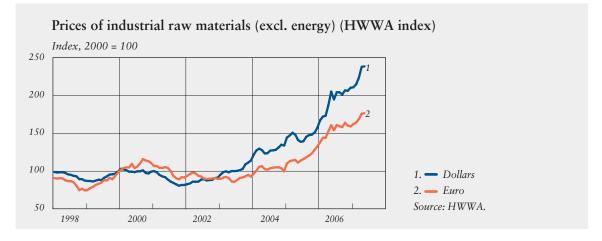
The exceptional weather conditions have also increased concerns for the environment. Environmental factors and environment policy are increasingly gaining importance as factors that can influence economic growth. For example, the imposition of environmental norms on the mining industry affects the supply of metals and hence their price on the world market, while demand for biofuels has pushed up the price of maize in the United States. Changing weather patterns have a rapid impact on the economy, especially the commodity markets. For example, the fall in oil prices

in early 2007 was partly a consequence of the exceptionally mild early winter in the United States, which undermined demand for heating oil. Across the northern hemisphere as a whole, the mild weather last winter hampered the harvesting of timber, which in turn pushed up prices.

Financial markets expect the positive trend to continue

Despite the rise in short-term interest rates, the yields for long-term government bonds have remained fairly stable, reflecting the stability of inflation and growth expectations. Yield differentials (risk premia) between emerging and industrial economies have been at historically low levels, reflecting confidence in the continuation of growth and economic policy conducive to stability in the emerging economies. The lower risk premia may also be partly due to the ongoing changes in the financial markets, which have made it easier to spread risk efficiently. In the present

Chart 2.

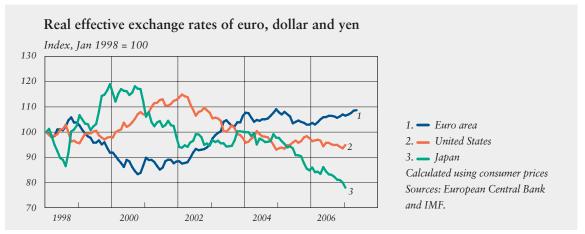


environment of ample global liquidity it is also possible that risks are underpriced.1 The prevailing optimism over world economic trends is also reflected in the continued rise in stock prices following the brief dip in February-March.

On foreign exchange markets, the euro has appreciated slightly, and the dollar and, especially, the yen depreciated since the beginning of the year (Chart 3). The movements in the effective exchange rate of the euro and the dollar have, however, been very small since 2002, bearing in mind the considerable differences between the currency areas in terms of short-term interest rates and the outlook for the real economy. The small movements there have been have had only a marginal impact on competitiveness and price trends in the euro area and the United States. In contrast, the real exchange rate for the yen has weakened considerably since 2004, boosting the competitiveness of Japanese companies and creating pressures for a rise in import prices in Japan. The weakness of the yen has been encouraged by the very low level of Japanese interest rates and the related carry trades on the foreign exchange markets.2

Although current expectations for world growth remain optimistic, there has been an increase in uncertainty since the beginning of the year. Most of the risks are global in nature. The price of oil and other commodities is still subject to a great deal of uncertainty. Global imbalances, reflected in the large US current account deficit and the counterbalancing large surpluses in Asia and the oil-producing countries, could unravel in an uncontrolled way, leading to a decline in the value of the dollar and a rise in long-term interest

Chart 3.



¹ On the effects of ample liquidity on the propensity to take on risk, see the following chapter 'Financial stability in Finland'.

² Carry trades refer to the practice of borrowing in a low-interest currency (eg the Japanese yen) and investing the borrowed sum in a higher yielding currency without fully hedging the resulting exchange rate risk.

rates. The global imbalances are also contributing to protectionist pressures. A slowdown in world trade would increase the risk of a global recession. It is also possible that the long upward trend in the economy and the existence of ample global liquidity have led the financial markets to set too low a price on risk premia. A sudden increase in risk premia would cause a contraction in investment and weaken the economic outlook for emerging economies.

US economic recovery delayed

Between 2004 and 2006 the US Federal Reserve raised its key interest rate in stages by over 4 percentage points to 5.25%, a level it has since remained at for almost a year. Assessments of the US economy have recently been characterised by concern over accelerating inflation and uncertainty over the outlook for the real economy. This has led to fluctuating expectations over future monetary policy.

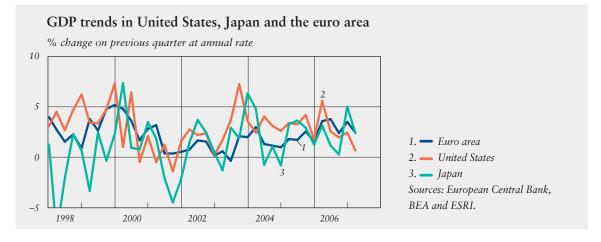
The most important factor of uncertainty over the future course of

the US economy is the marked readjustment in the housing market that began towards the end of 2005 and is still ongoing. The recession in housing investment is estimated to have reduced US economic growth so far by around one percentage point (Chart 4). At the same time, the rise in housing prices has slowed, and in places prices have come down.

The current account deficit that has characterised the US economy for over a decade continued to grow in 2006. Towards the end of the year the deficit contracted somewhat due to a temporary fall in the price of oil, but the contraction has not continued into this year.

Although the uncertainty surrounding the real US economy has increased in 2007, the most probable scenario is still thought to be that growth will soon accelerate close to the long-term potential growth rate. US growth continues to be driven by private consumption, which has remained surprisingly strong despite

Chart 4.



the weakening of the housing market. Consumption growth has been bolstered by continued strong employment and positive earnings development. In 2007, the growth effect of investment will be weak due to the low level of building investment and the weakness of industrial investment in machinery and equipment.

Japan still waiting for a permanent upward trend in prices

The Japanese economy has grown around 2% per annum since 2003. The exceptionally long economic upswing has been based on export demand, with domestic demand sluggish. With the long deflationary spiral finally easing, the Japanese central bank has gradually normalised monetary policy and raised interest rates in stages to 0.5%. In recent months, inflation has hovered around zero.

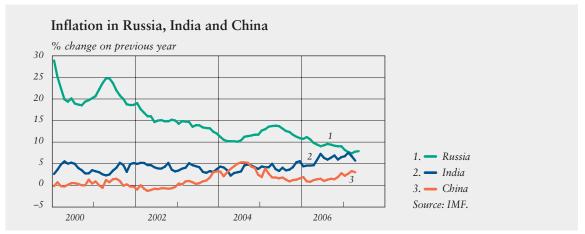
Japanese growth is expected to accelerate slightly, allowing the normalisation of monetary policy. The

weakening of the yen will bolster export demand and push up import prices. Surveys indicate the corporate investment outlook is bright. Despite weak wage development, there have been some signs recently of a recovery in households' consumption demand.

Asian emerging economies take steps to control growth

The Chinese trade surplus has continued to grow since the turn of the year, further swelling the country's foreign exchange reserves and increasing liquidity in the domestic economy. Continued strong lending has funded investment, but has at the same time also sustained the rapid rise in asset prices. Consumption demand has grown more moderately than investment, and consumer prices have risen relatively slowly (Chart 5). In order to prevent overheating, the Chinese central bank has raised lending

Chart 5.



interest rates and banks' reserve requirements several times already this year. Partly as a consequence of the country's strong economic growth, the natural environment in China is suffering and environmental problems have been identified as a major challenge for economic policy.

The Indian economy has also continued to grow strongly. In contrast to China, a concern in India has been the acceleration in consumer price inflation. The central bank has responded to inflation pressures by tightening monetary policy.

In Russia, the focus of growth has in recent years shifted from exports to domestic demand. In 2006, growth was particularly rapid in retailing and construction. There has been little investment in oil production, and output growth last year was only a couple of percent. With the rise in world market prices for commodities, the manufacture of mineral products for export has markedly increased. Russia has succeeded in considerably slowing the pace of inflation, although it is still fairly rapid in international comparison.

South America and Africa also benefit from world trade growth

One particularly positive feature of the present economic upswing has been the continued rapid pace of growth in many South American and African countries that had previously suffered from a sustained period of weak growth and economic instability. There are many reasons for the improved situation in these countries, but in many cases it is the rise in commodity prices that has fostered growth. Disciplined, long-term economic policy has helped many low-income countries to take advantage of the growth in global demand for raw materials and at the same time encouraged them to save their export income.

One example is Brazil, where export prices began to rise strongly after 2003. The current account quickly developed a surplus, and Brazil is at present a net lender relative to the rest of the world. Disciplined fiscal policy has given a solid foundation to central government finances, and tight monetary policy has helped bring inflation down close to 4%. A credible economic policy has seen economic growth rise to 3-4% in recent years. The high world market prices for commodities and increased room for manoeuvre in economic policy due to enhanced credibility and an improved external financial position mean a continued positive economic outlook for Brazil.

Euro area growth better than forecast

The euro area economy has made a gratifying recovery following a long period of slow growth (Chart 6). Particularly worth noting is the strength of growth in Germany. German exports have been growing rapidly for several years, but just recently growth

has received a further boost from a recovery in corporate investment.

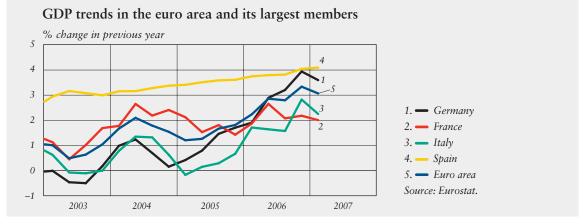
Investment growth in Germany has boosted demand for investment goods elsewhere in the euro area, too, such as Italy and Finland. In contrast, private consumption growth in Germany has been, and remains, modest, although autumn 2006 and the early months of 2007 have exhibited some signs of stronger consumer confidence. Spanish growth has been running at over 3% per annum for several years already, as a result of strong domestic demand. French growth accelerated slightly in 2006 to 2.1%. The Italian economy also gathered pace last year, with growth at 1.9%.

As growth has picked up, the employment situation has also rapidly improved (see Box). Labour productivity also began to rise during 2006 following a long period of slow growth. The precise causes of the acceleration in labour productivity growth in 2006 are unknown, but to a considerable degree

the change is cyclical. Assessments suggest that one of the causes of the euro area's sluggish labour productivity growth towards the end of the 1990s and the early 2000s was insufficient exploitation of information technology in services.3

The Governing Council of the European Central Bank decided at its meeting at the beginning of June to raise its policy rate by 0.25 percentage points to 4%. This was the eighth rise in a row of the same magnitude since December 2005. Given the positive economic environment in the euro area, monetary policy is still on the accommodative side. Overall financing conditions are favourable, money and credit growth is vigorous, and there is ample liquidity in the euro area. The Governing Council will monitor closely all developments to ensure that risks to price stability over the medium term do not materialise.





³ For more on labour productivity in the euro area see EU KLEMS (March 2007). Van Ark, B, O'Mahony, M and Ypma, G (eds.) 'The EU Klems Productivity Report' (http://www.euklems.com/data/ eu_klems_productivity_report.pdf).

In connection with the interest rate rise, the Governing Council also published the new Eurosystem staff macroeconomic projections. These foresee average annual real GDP growth of between 2.3% and 2.9% in 2007, and 1.8% and 2.8% in 2008. Average annual HICP inflation is projected at between 1.8% and 2.2% in 2007, and 1.4% and 2.6% in 2008. At medium to longer horizons, the Governing Council believes the balance of risks in respect of growth is on the downside, owing mainly to external factors. With regard to inflation, the Governing Council defined the risks as on the upside and domestic in origin.

Faster economic growth and the improved employment situation have boosted general government finances in almost every country in the euro area. The financial position of general government is expected to continue to improve in the immediate years ahead. At present, there are still two euro area countries (Italy, Portugal) and five other EU member states (Czech Republic, Hungary, Poland, Slovakia, United Kingdom) within the sphere of the Stability and Growth Pact's Excessive Deficit Procedure. The Council has given these countries a deadline for adjusting their deficits. According to a European Commission forecast, it would seem likely that Portugal (euro area) and the Czech Republic and possibly Poland and Hungary (rest of the EU) will not manage to reduce their deficit by the

set date. The improved financial position of general government is to some extent cyclical in nature, which means it is important to ensure the benefits derived are used to prepare for the growing challenges of an ageing population.

The growth outlook for the euro area over the next few years remains positive, although the pace of growth is expected to even out somewhat. Growth will be based more than before on private consumption. The continued favourable performance of the economy, the tightening of the labour market and rising commodity prices mean that inflation risks tend on the whole to be on the upside.

Capacity constraints and the availability of labour will begin to hamper growth in Finland

Compared with other countries in the euro area, the Finnish economy has grown rapidly in the past few years. Growth has been based on export demand and private consumption. Export demand has been sustained by the strong growth in the world economy, while consumption demand has been based on rising housing prices and householders' solid confidence in their own financial situation. An additional factor in 2006 was an upturn in investment, which had long been sluggish. Employment has continued to grow, while unemployment has continued to decline (see Box). Strong economic growth and declining unemployment

have boosted the financial position of general government in Finland, too.

Growth in 2007 has been slower than a year earlier, when for a variety of reasons it was exceptionally fast. Indicators suggest that the favourable cycle will continue, despite the weak development of industrial output volume since the beginning of the year (Chart 7). Growth is expected to remain around 3% in the immediate years ahead. A number of signs suggest that capacity constraints and the availability of labour will increasingly hamper the pace of growth. Tightening labour and housing markets will increase wage pressures, and inflation risks will therefore tend to be on the upside.

Large loans and long maturities increase the stock of housing loans

Housing price rises in Finland have in recent years exceeded the rise in household income levels. At the same time, the housing loan stock has been growing rapidly (Chart 8). Although

Chart 7.

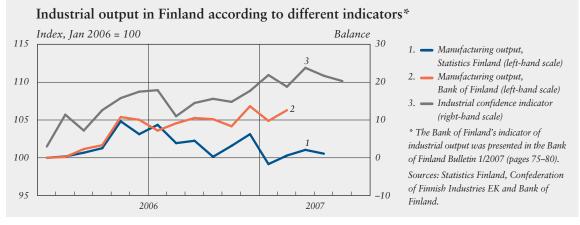
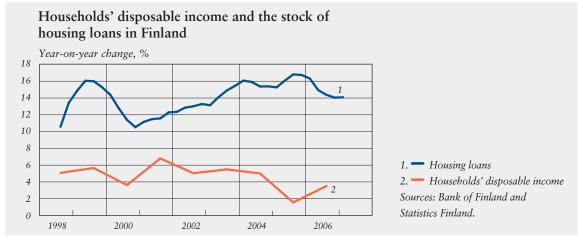


Chart 8.



rising interest rates have slowed growth in the housing loan stock from earlier peak levels, household indebtedness is continuing to grow rapidly.

Finnish households' debt to income ratio remains relatively moderate by international standards, and expert assessments do not see household indebtedness as a threat to stable growth of the national economy. The pace and concentration of indebtedness give cause for concern primarily with regard to whether households that have taken out large loans relative to their income have left themselves enough room for manoeuvre in the event of a possible change in their financial situation. The concentration of debt is reflected in the fact that only 20% of households carry 80% of the total household debt burden.

It is possible to interpret the housing loan market trend of recent years as a transitional phase in which housing loans that had a shorter original maturity and are now nearing maturity are being replaced by new loans of longer maturity. At the same time, considerably less money is nowadays being saved in advance towards the purchase of housing. This has been a positive trend in the sense that it has made it easier for households to adjust their housing expenditure according to their life situation. In other words, debt servicing expenditure can be more easily timed to the phase of life when the borrower is best able to pay. The

increased use of leverage to finance housing purchases has, however, increased the importance of risk management. This applies particularly to those households that are most exposed to risks relating to both income and interest rates. It also increases the importance of freeing up production bottlenecks in the housing market.

Rising interest rates have slowed the pace of growth in the housing loan stock in those euro area countries where the interest rates on housing loans are largely linked to short-term market rates. Finland is one such country, although in Finland growth in the housing loan stock has eased relatively little. This is probably because the continued economic upswing has strengthened households' income expectations and reduced the risk of unemployment. This trend could last longer than forecast if wage rises turn out to be very large and if the supply of housing cannot be increased through steps to release more land for building. Excessive wage rises and an overheated housing market would increase the risk of a steep downwards adjustment of housing prices at some point in the future.

Telecom price rises driving inflation

The average rise in consumer prices in Finland has in recent years been the lowest in the euro area. Low inflation has in turn supported growth in real incomes. This year,

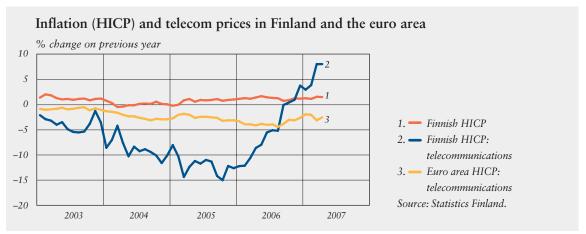
inflation as measured by the harmonised index of consumer prices (HICP) has accelerated to around 1.5%, primarily due to higher prices for telecom services. These began to rise markedly in 2006 when one major operator left the market and tie-in merchandising of telecom products was liberalised (Chart 9). It would appear that the altered market situation and changed market rules have weakened price competition, at least in the short term. Telecoms' contriburion to HICP inflation in April 2007 was 0.3 percentage points. The change over the course of a year has been considerable, as the inflation contribution of telecom prices a year earlier was still clearly negative.

The national consumer price index (CPI) differs from the harmonised index insofar as it includes the effect of housing prices and interest on housing loans and consumer credit.

Their inclusion explains why consumer price inflation as measured by the national index has recently been running at around one percentage point above HICP inflation. Over the next few years HICP inflation in Finland is expected to remain just under 2%, while the gap with national CPI inflation will narrow.

Keywords: inflation, monetary policy, economic situation

Chart 9.



Has the euro area labour market become more flexible?

There has been a gratifying improvement in the labour market situation in the euro area. In the past seven years almost 13 million new jobs have been created, while the unemployment rate has fallen from $8.3\%^{1}$ to 7.2%. The positive trend became even stronger last year (Chart A).

The improved labour market situation is primarily due to positive macroeconomic conditions. There is, however, some sign of an impact from structural changes introduced to improve the functioning of the labour market. A reduction in structural unemployment is suggested by the lack of any discernible increase in wage pres-

sures, despite the fact that unemployment is at its lowest level since 1992, the first year for which there are figures available.

Five significant developments are discernible in the euro area labour market that in many ways indicate the nature of the structural changes that have taken place:

- Approximately 45% of employment growth in the past seven years is explained by an increase in part-time working.
- Employment growth in 2000-2006 was faster among women (average 1.8%) than men (average 0.6%).
- The employment rate among 55–64-year-olds has risen in seven years from 34% to 42%.

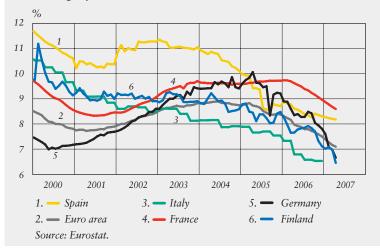
- Net employment growth in 1999–2005 was entirely down to the service sector.
- Immigration has become a significant factor in labour supply in some euro area countries. This is particularly true in Spain and Ireland.

Part-time jobs' share of all jobs was 20% in the second half of 2006. Of women in employment, 35% were working parttime, against an equivalent male figure of 7%. In Germany, women's part-time work has increased more than in France, for example, where the female part-time employment rate has been unchanged for the past ten years.

Women in the euro area are thus increasingly working outside the home. The strong growth in female employment can be expected to continue in the future, as the female employment rate last year (56.9%) was much lower than the male rate (73%). There are, however, considerable differences between countries. Last year, around 46% of women in Italy worked outside the home, while the equivalent figure in Finland was 68%. While 71% of all people employed in the euro area in 2006 were working in services (Chart B), the equivalent figure for women was 85%.

Chart A.

Unemployment rate in the euro area and selected members



¹ March 2000.

Employment growth among 55-64-year-olds has been rapid in almost all countries of the euro area, the exceptions being Greece and Italy. Finland has been in a class of its own in this respect, with the employment rate among 55–64-year-olds rising in seven years from 41.6% to 54.5%.

According to Eurostat, there were approximately 25 million immigrants living in EU countries in 2004, equal to 5.5% of the total population. Nationals' share of the labour force has contracted particularly strongly in Spain and Ireland, and to some degree also in Portugal (Chart C). An estimated half of Spain's GDP growth in 2001–2005 came directly from immigration, as a result of the positive impact of population growth, higher employment and an increase in per capita income. Since 2000, half of Spain's 2.6 million new jobs have gone to immigrants.2 Already in 2005, citizens of the new EU member states comprised 3.8% of Ireland's working age population. In Finland, immigrants' share of the labour force has remained very small.

Chart B. Proportion of euro area employed working in services

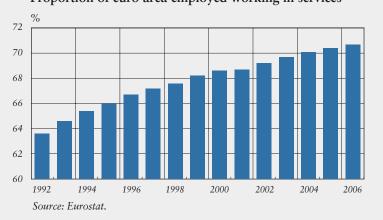
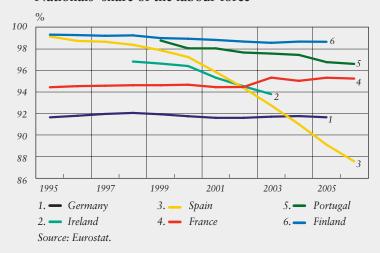


Chart C. Nationals' share of the labour force

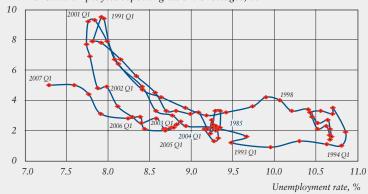


² OECD (2007) Economic surveys – Spain.

Chart D.

Relation between unemployment rate and labour shortages in the euro area

Industrial employers reporting labour shortages, %



Sources: European Commission and Eurostat.

A Beveridge curve (Chart D) has traditionally been used to depict the relation between unemployment rate and unfilled job vacancies. In Chart D, instead of job vacancies, we have used the share of all companies

accounted for by those companies that have reported a shortage of labour. A lower unemployment rate should be reflected in increased labour shortages, and vice versa. Chart D shows that, while the unemployment rate is

at a record low, recruitment problems have not increased as quickly as in the past.

According to the theory, the Beveridge curve's turning inwards indicates improved labour market functionality and flexibility and could help to explain why there is no sign of overheating in the euro area labour market. According to several research institutes, there has also been a reduction in equilibrium unemployment, and this, too, suggests a more efficient labour market.3 A similar conclusion is suggested by the continuation of moderate wage development.

³ Equilibrium unemployment is often described as the unemployment rate that will cause neither an acceleration nor a deceleration in wage rises (NAIRU = Non-Accelerating Inflation Rate of Unemployment). Evidence of a lowering in the NAIRU rate can be found in eg the ECB Monthly Bulletin of January 2007.

Financial stability in Finland

31 May 2007

Finland's financial system is stable and the outlook is bright. The most significant risk in the international operating environment is related to low risk premia and potential mispricing of risks. Domestically, the growth rate of household indebtedness has remained rapid and above euro area average. In terms of averages, the situation of the household sector is unalarming, but indebtedness is concentrated on a relatively small percentage of the population. Profitability and capital adequacy in banking and insurance are at a fairly good level. The most significant challenges to stability are structural and are related to the consolidation and internationalisation of the financial sector and the development of cross-border cooperation between authorities. There are many large projects ongoing with respect to the financial market infrastructure that will materialise over the next few years. These initiatives aim to improve the efficiency of the financial system, but they also include challenges from the viewpoint of maintaining service levels, competition issues and crisis management.

International operating environment

The global economy continued to grow rapidly in 2006, and growth has also remained brisk this year.1 Although monetary policy has been tightened in the major economic areas, interest rates are not high in historical perspective. The rapid global growth is expected to continue over the next few years, which provides a solid economic environment for companies in the financial sector.

The main threats and risks to global economic growth relate to economic overheating and the credibility of economic policy in many countries, an increase in protectionism, environmental factors and the price trends of many commodities - especially oil. As regards regional risks, there is increased uncertainty over the future course of the US real economy.

Uncertainty over the US economy relates to the cooling down of the housing market and problems in the subprime housing loan market. Households' payment defaults on housing loans have increased, and interest rates on securitised housing loan assets with low ratings have increased steeply relative to risk-free bonds. These loans have often been granted to customers with low income or previous defaults. Adjustable interest rate loans have been more common than average among this group, which means the increase in interest rates probably explains part of the increase in

¹ See the preceding article 'Monetary policy and economic outlook'

defaults. Some financial institutions specialising in this market segment have filed for bankruptcy in connection with the crisis. However, housing loans have seldom led to severe credit losses, and financial stability is therefore unlikely to be under extensive threat from direct credit losses. The most significant potential ramifications are indirect. On one hand they relate to a potential slow-down in US economic growth, and on the other hand to the spread of difficulties to other structured credit markets and more generally to the financial system due to the increased interlinkages in the financial markets.

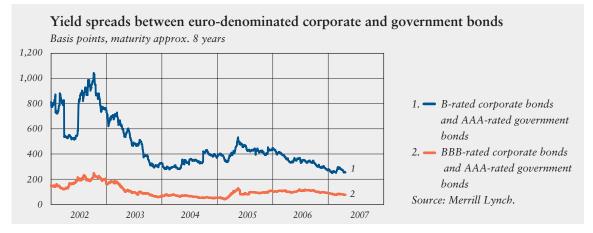
The international financial system has stood up well to disruptions it has faced in the past few years. However, these shocks have been relatively minor, and it still remains to be seen how market reliability would be sustained in the event of much more severe difficulties than those seen so far. The vulnerability of the system has

been increased by two factors in particular: ample liquidity in the global economy and global imbalances in savings and investments.

There is still ample liquidity available for investment in the financial markets, and optimism is the prevailing sentiment on the markets. This combination has promoted an increase in the value of many assets. For example, stock prices have risen almost non-stop for an extended period. In February-March, there was a worldwide dip in the stock market, but this turned out to be temporary. The dip began in China, which highlights the country's increasing importance to the global economy. The incident also goes to show that asset prices around the world correlate more closely than they used to, which decreases the scope for reducing risks through international diversification.

Investors have shown an exceptionally large appetite for risk. The yield spread between AAA-rated and





lower-rated corporate bonds has recently been narrower than previous averages and has continued to narrow further (Chart 1). Exchange rate stability has encouraged an increase in carry trades, where loans are taken in currencies with low interest rates, like the Japanese yen and the Swiss franc, and invested in currencies with higher interest rates.

One reason behind the increased risk appetite is that the operating environment has become more stable than before. Cyclical fluctuations in the global economy have become more subdued as economic growth has spread more extensively across economic areas. In addition, inflation has been successfully kept at a moderate level in all major economic areas. Due to developments in financial innovation and particularly the market for credit derivatives, risks are now spread more effectively than before and across a broader group of risk-bearers. All these factors decrease the risk premia required by investors. In addition, risks in emerging markets reliant on commodities exports have probably decreased at least for the present cycle. The industrial raw material price index has risen over 20% since the beginning of May 2006, and the budget deficits of countries exporting commodities have as a consequence decreased and their credit ratings improved.

Although there are many permanent, structural factors behind the decrease in risk premia, optimism in the markets may prove excessive, and risks may not have been priced correctly. There is as yet no experience of how the credit derivatives markets will perform in a severe crisis. The significance of hedge funds is crucial in these markets, and there is to date lamentably little reliable up-to-date information on these funds.

The US current account deficit has remained large for years and would seem set to grow further. The deficit is not out of proportion to the US economy, amounting to about 6.4% of GDP. However, relative to current account income, it amounted to 42%. The federal budget deficit has also remained large although tax revenues have exceeded forecasts. The central position of the dollar on international foreign exchange markets and its position as the reserve currency of choice for central banks has helped finance the deficits. The advanced global integration of the financial markets has also helped.

Although the US deficits have been debated for quite some time, there has been no strong reaction in the markets. The dollar has continued to weaken further, but in no sense could this be described as a collapse. From May 2006 to May 2007, depreciation against the euro has been about 6%. In relation to a currency basket comprising the currencies of the United States' major trading partners, the depreciation has been a lot more subtle, since many Asian

There is ample liquidity for investment, and risks are not necessarily being priced appropriately.

In Finland, corporate indebtedness has remained moderate.

countries have taken steps to prevent the appreciation of their currencies. Gold has also been appreciating against the dollar for years, although during the past year this trend has flattened somewhat.

The Chinese news agency Xinhua reported in March that China is to set up a new state-owned investment company. The company is likely to be vested with management of part of China's foreign reserves, which have grown to USD 1,200 billion. In the early stages, it is believed the company will receive perhaps USD 200-250 billion for management. The objective behind the new company is to get a better return on investments than is usually achievable by a central bank following conservative investment principles. The initiative is likely to have an impact on the structure of the demand for investment instruments worldwide.

A significant change in the regulation environment for banks, the Basel II framework concerning minimum capital adequacy requirements, was adopted in the European Union subject to certain restrictions at the beginning of 2007. In the new framework, the minimum capital banks are required to maintain is linked more clearly than before to their credit and other risks. The impacts of the reform on the operation of credit institutions in varying cyclical conditions will be monitored closely in a number of forums.

Domestic operating environment

The cyclical upswing has continued in the Finnish economy and no significant downswing is in sight.2 According to the Business Outlook Indicator published by the Confederation of Finnish Industry and Employers in May, companies also expect the upswing to continue. The favourable growth prospects lay a solid foundation for the stability of the Finnish financial system.

Among the major domestic debtor sectors for financial institutions, the corporate sector is still relatively problem free. Company profitability is good and the level of debt is still reasonable. According to the Survey on Business Finances published in January, companies are planning to increase their external financing, and banks are becoming more important as providers of finance. Only a few companies had experienced difficulties in servicing their loans. According to statistics published by the business and credit information company Suomen Asiakastieto, the number of companies in default continued to decrease in 2006. The number of bankruptcies filed in early 2007 was slightly lower than a year earlier. Banks' actual credit losses or nonperforming assets show no indication of increased difficulties in the corporate sector. Stock prices on the Helsinki Stock Exchange have

² Bank of Finland Bulletin 1/2007 and the preceding article 'Monetary policy and economic outlook' on page 1 of this issue.

continued to rise, reflecting market confidence in the business outlook. Viewed historically, Finnish companies have remained very solid in terms of distances to default calculated on the basis of market information.

The growth rate of household debt has remained surprisingly brisk in Finland. Relative to income, households already have more debt than before the recession of the 1990s. However, debt servicing expenses are now lower because of

the much lower interest rates (Chart 2). In Finland, a majority of household loans carry adjustable interest rates, in contrast to the largest economies in the euro area, Germany and France.

So far, households' demand for credit has reacted only a little to the increase in the level of interest rates (Chart 3). Credit demand has been fuelled by households' strong confidence in the economy.³ The

Chart 2.

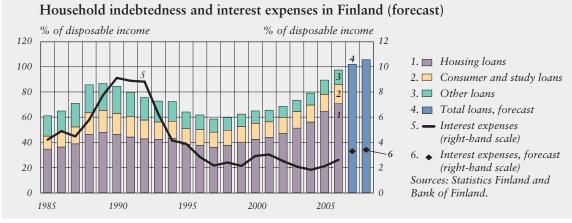
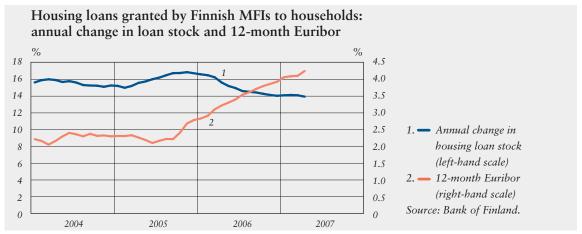


Chart 3.



³ Consumer barometer 2007, May. Statistics Finland.

Households in Finland are taking on debt faster than elsewhere in the euro area.

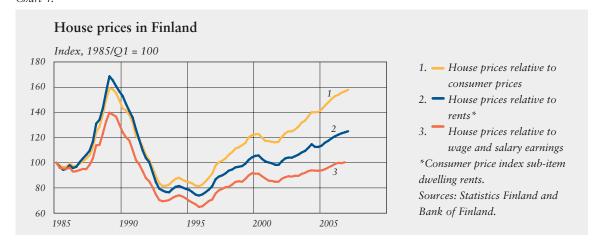
phenomenon probably also partly reflects changes in the market for household loans. More flexible practices in relation to eg loan repayment periods make it possible to keep debt-servicing costs constant despite rises in interest rates. The average repayment period for new housing loans has risen to 18 years.4

Despite the rapid growth in household debt, the state of the household sector as a whole gives no cause for alarm and risks from the sector do not endanger banks' stability. In international comparison, the level of indebtedness among Finnish households is relatively moderate. Households' real disposable income is expected to grow relatively rapidly in the next few years, and the unemployment rate is expected to decrease somewhat.

Nevertheless, debt is distributed within the household sector very unevenly, since only a little more than a half of all households have any debt. It is possible that individual households could become overindebted. In 2006, the number of those with payment defaults increased, but only very moderately.

Housing prices in Finland have risen in recent years faster than household income levels, and relative to consumer prices they have already reached the levels prevailing before the recession of the 1990s. However, in light of most indicators - such as ratio of housing prices to rents or housing prices to income levels - prevailing prices do not appear to deviate significantly from long-term averages (Chart 4). Despite the sustained rise in stock prices, the P/E ratios of stocks quoted on the Helsinki Stock Exchange are average, viewed historically, since the corporate profit outlook has largely improved apace with the increase in stock prices.

Chart 4.



Report entitled 'Säästäminen ja luotonkäyttö' ('Saving and the use of credit') by the Federation of Finnish Financial Services (spring 2007).

Banking and insurance sector

The financial sector globally is in good shape and is expected to remain so with the solid growth in the world economy. The good profitability and solvency of banks and insurance companies are a positive sign for the risk-bearing capacity of the financial system. The most important internal challenges to the stability of the financial system are structural factors relating to the integration and internationalisation of the financial sector.

The profitability of the largest banks in the euro area in 2006 was much better than the previous year, although the development of net interest income was weak. Profitability has remained good in the first quarter of 2007. In Japan, too, banking profitability has also improved, although it is still not very good.

Icelandic banks have recently been much in the spotlight after making significant acquisitions abroad, including Finland. Expansion has required a great deal of foreign finance, which has been readily available. The profitability of Icelandic banks has been very good.

The profitability of banks and financial conglomerates operating in Finland improved in 2006, and data from the first quarter of 2007 indicate continued improvement (Table 1). Expenses increased, but income increased even faster. Net interest income, fees and commissions and other income all increased. The increase in net interest income was

due to an increase in both the volume of financial intermediation and the margin between deposit and lending rates. The margin has increased because interest rate rises have had a stronger impact on lending rates than deposit rates. Credit losses have remained very small. The stock markets reflect a positive view of the outlook for banking. The total return index for banking stocks on the Helsinki Stock Exchange rose from the end of April 2006 to the end of April 2007 by 28%, slightly outperforming the 24% rise in the total return portfolio index over the period. At the same time, the volatility of banking stocks has decreased.

The capital adequacy of Finnish banks continues to be quite good on average, although there is variation between banks. None of the banking groups has weak capital adequacy figures.

The European Central Bank published at the end of 2006 comparative data on the banking sectors in EU countries. Measured by return on equity, Finnish banks were less profitable than the average for banks in other EU countries. This may be due to the strong capital adequacy of our banking sector: It is more difficult to achieve high returns with large amounts of equity capital. In Finnish banks, the return on total assets is among the highest in Europe.

Bank lending has for years been growing faster than deposits. Funding has been obtained increasingly from

Banking profitability has improved still further.

Table 1. Key data and profit and loss account items on banking groups January-March 2007 and 2006

	Net interest income, EUR million		Other income, EUR million		Total expenses, EUR million	
	1-3/2007	1-3/2006	1-3/2007	1–3/2006	1–3/2007	1-3/2006
Nordea Group	1,004	927	869	827	992	933
Retail banking	817	766	470	466	686	657
Retail banking in Finland	237	208	130	123	165	162
Danske Bank Group (pro forma)	768	675	706	683	787	729
Banking activities in Finland	72	67	39	33	79	60
OP Bank Group	244	202	313	300	289	278
OKO Bank Group	26	26	153	146	114	104
Savings banks (excl. Aktia), total	38	30	12	13	29	27
Aktia Savings Bank plc (Group)	21	21	52	12	50	20
Local cooperative banks, total	26	21	8	9	19	19
Bank of Åland plc (Group)	9	8	9	7	10	9
Evli Group	0,1	0,3	17	14	14	13
eQ Group	2	1	11	11	8	7

	Operating profit, EUR million		Expenses, % of income		Capital adequacy 31 March 2007	
	1–3/2007	1–3/2006	1–3/2007	1–3/2006	Tier1, %	Total capital adequacy, %
Nordea Group	895	853	53	53	6.8	9.4
Retail banking	636	619	53	53		
Retail banking in Finland	224	178	45	49		
Danske Bank Group (pro forma)	710	647	53	53	6.6	10.1
Banking activities in Finland	32	41	73	60		
OP Bank Group	246	211	52	55	12.8	14.3
OKO Bank Group	65	69			8.0	12.7
Savings banks (excl. Aktia), total	22	16	57	64		
Aktia Savings Bank plc (Group)	22	13	65	63	18.3	12.4
Local cooperative banks, total	15	11	55	63		
Bank of Åland plc (Group)	8	6	56	59	8.5	13.5
Evli Group	3	1	83	91		15.2
eQ Group	5	5	70	60	13.7	13.7

Expenses include depreciation and write-downs on tangible and intangible assets.

The various items do not equal operating profit, as some profit and loss account items have not been included. Sources: Banks' interim reports and statements.

the money and capital markets. Banks typically have to pay higher interest on these types of finance than on deposits. A positive characteristic in banks' market-based financing has been the application of fairly long average maturities. Bonds, in turn, are a more stable, if more expensive source of finance than the money markets. Banking liquidity has remained solid and credit ratings have not fallen.

Banks have maintained goodquality credit portfolios, which is reflected in the small amount of credit losses and small number of non-performing loans. The rise in housing prices has increased the collateral value of houses, which has enabled the granting of larger loans than before. It is not fully clear whether every bank has pursued sufficiently prudent collateral policies, although, in the light of previous experience, it would seem unlikely that housing loans will cause significant credit losses for the banks. Even so, increasing interest rates could undermine the position of indebted households in ways that both banks and their customers should pay more attention to than they have until now.

There has been no significant change in banks' direct interest rate risks, and risks are all in all quite moderate.5

The profitability of Finnish insurance companies has improved. Solvency has also remained relatively good.6 Total premiums written increased from 2005 to 2006, although total premiums written on life insurance were down slightly in 2006. Investment income also remained solid. In life insurance operations, the share of unit-linked policies has increased steadily. Measured by premiums written, a good half of life insurance policies were already unit-linked in 2006, although the proportion of insurance savings accounted for by guaranteed-return policies still remains well over 50%. These developments decrease the dependence of life insurance companies on investment income, although the risk is transferred

to their customers.

The Finnish financial sector continues to undergo restructuring. In November 2006, Sampo announced that it would sell the entire share capital of Sampo Bank to the Danish Danske Bank. The transaction entered into force at the beginning of February 2007. The sale price was a good EUR 4 billion. In March 2007, the Icelandic Glitnir Bank acquired 68% of the share capital of the FIM Group and made a purchase offer on the remaining shares in April. In practice, the entire share capital was transferred to Glitnir at the end of the offer period. Similarly, the Icelandic Straumur-Burdaras investment bank announced in May 2007 that it would purchase in cash 62% of the eQ Online group and

Company takeovers are creating an internationalised financial sector.

⁵ FSA Newsline 2/2007.

⁶ Press release of 7 March 2007 by the Insurance

Table 2.

Financial market integration projects

	Financial institutions	Payments	Securities markets
Markets	Cross-border and cross-sector mergers	Single Euro Payments Area (SEPA)	Stock exchange mergers CSD cooperation projects
Central banks	EU-level stability analysis and stress tests	Central banks' payment system (TARGET2)	Eurosystem TARGET2- Securities project
Regulation and supervision	Regulation of capital adequacy and solvency Basel II (banks) Solvency II (insurance companies) Supervision cooperation	Payment Services Directive Competition policy	Markets in Financial Instruments Directive (MiFID) Code of Conduct Supervision cooperation

make a mandatory bid for all shares in eQ at the same price.

Financial market integration is proceeding on many different fronts (Table 2). The rapid structural change and internationalisation are posing substantial challenges for regulation and supervision (see Box). An increasing proportion of financial market participants are international groups with significant operations in many countries. Closer cooperation between supervisors and other authorities responsible for financial stability is of key importance in minimising stability threats related to these developments.

Financial system infrastructure

Operation of the most important international as well as national payment and settlement systems has been quite reliable, if not totally free of disruptions. SWIFT⁷, the globally

significant provider of communication services, had a serious incident in spring 2007 that disabled its all communication services for about an hour. However, SWIFT's backup arrangements functioned as planned, so the impacts of the incident were ultimately limited.

Roll-out of the Single Euro Payments Area (SEPA) is scheduled to start at the beginning of 2008. The goal of the initiative is that payments in euro can be processed as efficiently and securely across borders as nationally. The European Payments Council (EPC), which acts as a cooperation body for banks, has laid out the specifications for a SEPA credit transfer and direct debit as well as the general requirements for SEPA payment cards. The present model of SEPA direct debit based on a mandate issued to the recipient of the payment has been criticised as insecure. Banks are in fact preparing a new parallel model where the mandate would be verified by the payer's bank. SEPA

⁷ In 2006, SWIFT had 8,105 users in 207 countries, and 2,806 billion messages were sent through it. This amounts to 13.7% growth from the previous year. SWIFT Annual Report 2006 (http://www.swift.com/index.cfm?item_id=61877).

Improving financial supervision in Finland and the EU

The operating environment of financial companies has globally evolved significantly over the past couple of decades. As a result of these changes, the differences between banks and other financial institutions have become blurred as companies have consolidated and formed alliances across sectors, and their products and risks have become more similar. In many countries, authorities have responded to developments by centralising financial supervision either in a single organisation or in some cases - in accordance with the 'twin peaks' model - in separate organisations responsible for prudential and conduct-ofbusiness supervision.

In Finland, the new government has presented in its Government Programme the consolidation of the Finnish Financial Supervision Authority and the Insurance Supervision Authority into a single authority. The reform will improve the efficiency of financial and insurance market supervision in Finland. Financial and insurance supervision involve potential synergies in terms of the necessary expertise and common supervised entities. Cost-effectiveness also requires a sufficient centralisation of expertise. The efficiency benefits are particularly apparent in the case of a

small country like Finland. A single supervisor ensures equitable and uniform treatment for everyone engaging in similar activities.

Increasing integration in the financial sector also presents a challenge for cross-border cooperation between the authorities responsible for financial stability - primarily supervisors, central banks and finance ministries. Recent examples of ongoing evolution include corporate restructurings between large European and Nordic banks, such as the purchase offers on the Dutch ABN Amro and the sale of Sampo Bank to Danske Bank. Increase in the importance of cross-border banking groups has increased discussion about whether the current arrangements by authorities in the EU are sufficient to ensure financial stability, and whether supervision is actually effective.

Banking supervision in the EU has been based since 1989 on the principle of home country control. Based on this principle, the supervisor in the EU country that has given authorisation to a bank supervises the entire banking group including any branches operating abroad. The principle of home country control is not applied to subsidiaries, which are supervised by the supervisors in the country of

location (host country). As a consequence of the integration and internationalisation of financial markets, the responsibilities and competencies of authorities in different countries are no longer entirely aligned.

A number of reports have been conducted recently in the EU on development needs in the field of financial market regulation and supervision. The basic premise of these reports is that the core structures of financial supervision in the EU will not be changed in the immediate years ahead. Efforts will be made to improve the efficiency of banking supervision through discrete practical measures without changing the present responsibilities of banking groups' home and host countries. However, the decision-making authority of the supervisor in the home country of banking groups operating through subsidiaries has been strengthened.

In Finland, the market share of foreign players is very high in almost all sectors of the financial markets. As the significance of foreign ownership increases, there is a risk that the financial sector could become a branch-office activity, with a considerable loss of supervisory responsibility from Finland. Maintenance of financial stability requires the participation of host country supervisory authorities in supervision of foreign-owned entities that are significant players in the domestic market, irrespective of whether they are subsidiaries or branches. Cooperation between home and host country supervisors should therefore be fostered by all means possible - including European legislation.

The position of host country supervisory authorities in the supervision of nationally significant branches of foreign banks should be strengthened particularly through the following four measures. Firstly, the home country supervisors of a banking group should have a binding obligation to submit material information on the financial position of the group to the supervisor of a nationally significant branch. EU legislation already includes a similar obligation on exchange of information between the home country of a banking group and the supervisor of a nationally significant subsidiary. Secondly, under normal conditions, delegation of supervisory tasks (but not responsibility) of nationally significant branches to host country supervisors should be made mandatory. Present EU legislation gives the option but not obligation to delegate supervisory tasks. Thirdly, the establishment of supervisory groups between the supervisors of the home country of a cross-border banking group and the supervisors of nationally significant foreign branches should be mandatory, and the supervisors of the branches should also have the right to participate and be heard in the context of significant supervisory decisions concerning the entire banking group. Such supervisory groups are already in use between the supervisors of the home country of a banking group and the supervisors of nationally significant subsidiaries abroad. Finally, authorities responsible for financial stability in the host country of a nationally significant branch should have an opportunity to participate in crisis management concerning the banking group if the financial difficulties of the group could pose a risk to the stability of the national financial systems in the host country.

The primary responsibility for oversight of financial market infrastructures lies with the central banks of the countries where the national systems are located. Overall responsibility for oversight of multinational systems has been vested with the European Central Bank. The emergence of the Single Euro Payments Area and other market developments may also lead to

the consolidation of systems, whereby national central banks would no longer have primary responsibility for oversight of the systems processing payments and securities transactions in their own countries, as they do at present. In this event, it would be extremely important to ensure jointly agreed evaluation standards and methods, efficient flow of information between central banks and sufficient attention to the views of all central banks concerned in systems oversight. At the same time, national central banks should be able to assess each nationally significant system from the perspective of how it caters to the needs of its own citizens and companies.

There is no need for EU legislation with respect to the arrangement of oversight of infrastructures, since central banks have independently created an effective oversight system within the scope of their current competence. In contrast, there is no similar arrangement for international cooperation between supervisors with respect to infrastructures. Hence, it should be considered whether such an arrangement is necessary to ensure the efficient carrying out of supervisory measures and responsibilities and the exchange of information as systems consolidate across borders.

products are intended to replace national payment products by the end of 2010.

The Single Euro Payments Area will generate pressure for changes to the payment infrastructure. Payment systems must be capable of processing the new uniform means of payment. In addition, as the operating environment becomes increasingly international, providers of payment services will have to consider what kind of infrastructure would be the most suitable in the future. At the moment there is one SEPA clearing house8 operating in Europe, the STEP 2 system of the Euro Banking Association, and a number of providers have plans to construct competitive systems. Be that as it may, it seems that the providers of payment services in many countries would rather change their systems to meet SEPA requirements than adopt the STEP 2 system.

In line with the updated SEPA transition plan9, banks will establish common practices and a standard level for basic services in Finland. They will also have the option of offering various additional services. Banks will introduce the SEPA credit transfer at the beginning of 2008. In contrast, they have some reservations towards the SEPA direct debit, since it involves risks and additional costs

in comparison to more advanced payment methods. Thus, they estimate that the present Finnish direct debit will continue in use beyond the end of 2010. Banks are recommending to their customers that they adopt einvoicing instead of direct debiting. SEPA cards will be introduced in accordance with the schedule set out by the EPC, and Finland's present system of debit cards ('bank cards') will be wound up.

Finnish banks will join the STEP 2 system and are also exploring other possibilities for arranging interbank payment traffic. This may lead to the termination of the present national retail payment system, the PMJ.

Banks have already changed the general terms of cross-border payments, and the present terms state that banks may have to surrender information on the payer to authorities within the EU or other countries. 10 These changes are the result of surveys by authorities concerning the access of US authorities to SWIFT's payment information for use in the fight against terrorism.

The integration and globalisation of infrastructures means the effects of system disturbances are now potentially more far-reaching and serious than before. For example, the above-mentioned incident in

SEPA represents an opportunity for more efficient European payment services.

⁸ Pan-European Automated Clearing House (PEACH).

The updated transition plan is available at the website of the Federation of Finnish Financial Services (www.fkl.fi).

¹⁰ The obligation to surrender information to authorities will be indicated in the terms and conditions of payment traffic. Federation of Finnish Financial Services, 30 March 2007 (http://www.fkl. fi/asp/system/empty.asp?P=2316&VID=default&SI D=510055965699798&S=1&C=19979&A=open: news:item_www:3012).

Integration poses a challenge for infrastructure.

SWIFT could have led to very serious problems on the financial markets. SEPA will mean the demise of national means of payment and changes in the payment infrastructures between providers of payment services. If SEPA is a success, it will improve the security and efficiency of paying. It is therefore an initiative worth supporting, if not entirely problem free. The basic questions are: how to foster the efficiency of payment services and infrastructures, how to ensure the level of payment services is not compromised in those countries where it is already first class (such as the Nordic countries), and how to ensure that an infrastructure located in another country will provide high-quality and reliable services in crisis situations.

Particularly as regards card payments, there is general concern over the impacts of market changes on the costs incurred by users vendors and cardholders - and the issue of competition in general. Duopolistic markets governed by Visa and MasterCard would not necessarily be ideal. To promote competition, other payment card services would be needed, or a credible threat of their entry onto the market.

SEPA enables cost savings through consolidating payment systems. However, market participants have not so far made use of this opportunity. There is the danger that an environment will emerge where

national payments are processed as at present in national systems linked to a pan-European clearing centre for cross-border payments. Such a twotier system would be harmful from the viewpoint of efficiency. The emergence of several pan-European clearing centres would be desirable, not least to foster competition.

Finnish banks have stated their desire to maintain the present national service level by supplementing the European basic service level with additional services. However, additional services must not mean an additional price; the current national service level must be maintained at current or lower prices. Moreover, service development should not be halted to wait for other countries to reach the same service level as Finland.

The choice of infrastructure to be used in the SEPA environment should not be based on price alone, but should also consider the quality of services and continuity of operation, also in crisis situations. The integration of infrastructures presents a challenge for authorities, since system supervision or oversight will be transferred to authorities in another country (see Box). It is essential to ensure adequate access to information and the possibility to exert an influence. The selected infrastructure must comply with central bank policies and system oversight requirements including efficiency, reliability, usability, location and governance.

The EU's Payment Services Directive was adopted in spring 2007 with the aim of harmonising payment-related legislation across the EU and fostering competition by increasing the choices available to users of payment services and improving the security and efficiency of payment services. Due to its extensive scope of application, the Directive has implications for almost all payments irrespective of eg the size of payment or whether it is a national or an intra-EU cross-border payment. The Directive includes provisions on the transparency of conditions and information requirements as well as responsibilities of users and providers of payment services. It further provides that only traditional credit institutions, emoney institutions, post offices authorised to provide payment services under national legislation, and payment institutions may offer EU-wide payment services. Also included in the Directive is a regulation framework for payment institutions. The Directive must be transposed into national legislation by 1 November 2009.

The Payment Services Directive represents a significant step towards the creation of a single euro payment area, since it harmonises paymentrelated legislation across the EU. The biggest question marks relate to its impact on competition. The establishment of payment institutions is specifically intended to increase

competition in payment markets, which are at present dominated by the banks. The issue of competition is an important one, since a report by the European Commission on the competitive situation within retail banking identified a number of competitive problems in the markets for payment cards and systems and retail banking markets.11

The framers of the regulation framework for payment institutions sought a compromise between, on one hand, the financial stability of payment institutions and protection of customer funds, and, on the other hand, regulation that was light enough to encourage payment institutions to actually emerge and lead to increased competition. Time and the markets will tell whether the requirements set for payment institutions (eg capital requirements) are too stringent, preventing the emergence of payment institutions and increased competition. The establishment of a payment institution may be an attractive alternative for eg retail chains instead of founding a credit institution.

On the securities markets, stock exchanges and securities clearing and settlement systems continue to seek cooperation partners, but primarily outside the EU. The internationally most important change was the

Securities markets are looking for global cooperation.

How does the Payment Services Directive foster competition?

¹¹ Press release of 31 January 2007 by the European Commission (http://europa.eu/rapid/ pressReleases Action.do?reference=IP/07/114&format= HTML&aged=0&language=FI&guiLanguage=en).

Central banks, too, are modifying their systems in pursuit of efficiency.

merger of the New York Stock Exchange (NYSE) and Euronext, which manages four European stock exchanges. The merger approved by the shareholders of both companies in December 2006. In terms of the combined market value of its lists, the new company is the world's largest and most liquid exchange group. Significant market changes for Finland are the expansion of OMX's alternative marketplace (First North) into the Finnish and Baltic markets during 2007, the separation of OMX from the Nordic Central Securities Depository (NCSD), owner of the Finnish Central Securities Depository (APK), and the plans for merger between OMX and the American technology exchange, NASDAQ. The holding companies of OMX and NASDAQ have signed a preliminary merger agreement, and the merger is supported by major shareholders. The merger would create the world's leading securities exchange and technology company and the largest global, technologically linked network of exchanges and clients.

The Finnish and Swedish central securities depositories, APK and VPC, have a vision of creating a harmonised Nordic post-trade infrastructural arrangement for the clearing and settlement of securities transactions, corporate actions and registers (the Nordic Single initiative). At the moment, the initiative is focusing on harmonising market practices and integrating CSD services. To that end,

APK has arranged a number of consultations. Stock exchanges' plans for the future may prove very challenging from the viewpoint of CSDs.

TARGET2 is intended to begin operations in three stages beginning in November 2007. Finland will switch to the system in February 2008. By adopting TARGET2, central banks aim to improve the efficiency of their own systems, by eg giving up national technological platforms, and to harmonise and improve services.

In addition, euro area central banks are planning a system that would offer efficient securities settlement services in central bank money (the TARGET2-Securities system). This is being planned in close cooperation with market participants, and the final decision on building the system will be made at the beginning of 2008. The central banks are also planning to improve the efficiency of their system for the delivery of central bank collateral. In the new system (Collateral Central Bank Management, or CCBM2) both national and crossborder collateral operations will be processed on a single platform. The basic specifications will be made in the same schedule used for the TARGET2-Securities system.¹²

European cooperative bodies representing stock exchanges, central counterparties and CSDs signed in

¹² The next generation of Collateral Management -Initial Consultation. European Central Bank (http://www.ecb.int/ecb/cons/html/t2securities.en.

November 2006 a Code of Conduct for clearing and settlement. This applies to clearing and settlement of share transactions and is part of selfregulation by the markets aimed at improving the efficiency of the posttrade infrastructure and its transparency. The rules cover three issues: 1) ensuring the comparability of service prices, 2) specifying access and interoperability conditions, eg to ensure equal access, and 3) unbundling services and implementing accounting separation so that customers can select only those services they want and receive information only on these. The first was already implemented by the end of December 2006, and the deadlines for implementation of the others are the end of June 2007 and beginning of January 2008. The European Commission is monitoring implementation of the Code.

Integration of financial market infrastructures (including securities trading, clearing and settlement systems) is proceeding step by step. This is positive for the efficiency of the markets. However, structural changes must also take account of the oversight and user requirements set for the systems. Oversight by the Bank of Finland relating to the Nordic Central Securities Depositary (NCSD) is conducted in cooperation with the Swedish Riksbank in accordance with a cooperation agreement. In 2007, cooperation will focus particularly on crisis management capabilities.

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

The simple fact the world is changing means we need the capability for crisis management.

Crisis management in the financial sector

23 May 2007

The reliability of the financial system in all situations is of vital importance to society. Financial markets have become international in scope, with the extensive adoption of new technology. Although this has brought benefits, it has also increased the potential threats to the system, and particularly the system infrastructure. Authorities and other financial market participants need to be active both in prevention and in preparing to meet new threats as they arise. Increasing internationalisation has reduced the significance of national borders in financial market contingency planning. Within the European Union, a framework based on multinational agreements has been developed to allow advance preparation for potential crises affecting the financial system. This is being tested in exercises at both national and international level. Business continuity and contingency planning carried out independently by companies and organisations in the financial sector also make an essential contribution to maintaining the ability of the financial markets to withstand crises.

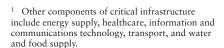
The financial system is a key component of a functioning society

An efficient and stable financial system is one of key features of a modern society. Broadly understood, the financial system encompasses

many different institutions and functional units. Taken together, these constitute part of our society's vital infrastructure.1 This has been acknowledged regularly in a variety of projects that have produced plans for coping with potentially severe threats to society.²

Finland's financial system is highly advanced technically. Viewed internationally, new technology is used extensively in all financial operations in Finland, enhancing the efficiency of financial sector companies and boosting productivity across the entire economy.

On the other side of the coin is the considerable dependence this brings on technology and the vulnerability of society in situations in the face serious technological disturbances. Increased interdependence between different social functions and broader exploitation of digital technology have brought new threats and risks that are hard to manage.



² See eg 'Green Paper on a European Programme for Critical Infrastructure Protection (EPCIP)', Annex 2: Indicative list of critical infrastructure sectors (published 17 November 2005) and 'Proposal for a Directive of the Council on the identification and designation of European Critical Infrastructure and the assessment of the need to improve their protection' (presented 12 December 2006). Comparable documents relating to Finland are 'The Strategy for Securing the Functions Vital to Society' (Government Resolution adopted on 23 November 2006), the present Emergency Powers Act (1080/1991) and 'Proposal for a new law on emergency powers, Report of the Emergency Powers Act Committee' (Ministry of Justice, Committee Report (2005:2)). All these highlight the financial system, and particularly the payment system, as a critical and vital function for society.



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Veli-Matti Lumiala Head of Security Administration

Finland's financial system depends on information systems on several levels. Important from the perspective of crisis situations are the centralised systems and service centres for producing financial services. These centres constitute critical nodes of the financial system. Also critical are the information networks used to link service users (ie companies, households and the public sector).

One typical feature of small countries like Finland is the limited number of financial market participants. This increases the importance of each participant and also the financial system's crisis vulnerability compared with larger, more diversified markets.

Recent years have seen increased attention given to how to manage risks to the vital infrastructure of society. Particularly salient are increased technical vulnerability, increased interdependence between

systems, deeper integration and changing threat scenarios.

The reassessment of threats has also been prompted in part by the terrorist attacks in New York (September 2001), Madrid (March 2004) and London (July 2005), natural disasters (tsunamis, Hurricane Katrina) and the bird flu that first emerged in 2006 with the associated threat of a pandemic.

Threats to the financial system

Financial sector companies experience some sort of disturbances and risks on a daily basis. These individual events do not, however, cause significant costs to the companies concerned or their customers, and their operations as a whole are not threatened.

More serious are those rare situations and disturbances that threaten the stability and even the very existence of the entire financial system.

Chart.

Threat scenarios

Examples of serious financial risks • Realisation of liquidity risk Realisation of credit risk • Realisation of business risk

Examples of infrastructure disturbances

- IT system disturbance
- Disruption of energy supply
- Major accident

Financial system crisis, potentially major costs to society, typically knock-on effects and escalation, threat of systemic breakdown.

These typically involve costs and losses that are borne by the economy as a whole in one form or another.

Serious financial market threats can be divided into two main types:

- The realisation of serious financial risks.
- Serious disturbances to the infrastructure used in producing financial services.

Financial system threat scenarios have traditionally concerned the realisation of various financial risks. For example, banks' credit or liquidity risks can in some extreme situations be realised in a way that threatens the existence of both an individual bank and the banking system as a whole. The historical banking crises in Finland and other industrial countries are examples of the realisation of financial risks leading to substantial costs.

Another perspective on risks and disturbances, and one that has attracted increasing attention in recent years, is the issue of threats to the financial system infrastructure. The nature and significance of these sorts of crisis have been altered by extensive financial integration and the increasing use of information technology. As a result, various risks, if realised, can spread further and more rapidly than in the past. Hence, the effects of infrastructure disturbances can be much more severe and constitute a risk to the system as a whole.

As a part of efforts to protect vital social infrastructure, the Finnish authorities have sought to assess the most significant threats. The threat scenarios identified in 'The Strategy for Securing the Functions Vital to Society' (Government Resolution adopted on 23 November 2006) are listed in the table below.

From the perspective of the financial system, these are serious threats, although they would impact in different ways. A disturbance in the electricity grid would cause a breakdown in the functioning of infrastructure used in service production, while a major accident or terrorist attack could cause a financial crisis through the destruction of property and asset values. Moreover, assessments carried out jointly by authorities and financial sector companies have identified the following scenarios as posing a

Banking crises are examples of the realisation of financial risks leading to substantial costs.

Table.

Threat scenarios

- A disturbance in the electricity grid
- A serious disturbance of the health and income security of the population
- A serious disturbance in the functioning of the economy
- Major accidents and natural disasters
- Environmental threats
- Terrorism as well as organized and other serious crime
- Threats linked to migratory flows
- Political, economic and military pressure
- The use of military force

particular threat to the entire sector and the companies operating within it:

- The supply of energy (electricity) is hampered or ceases altogether.
- Information systems stop operating and/or telecom traffic comes to a halt.
- There is a major accident or serious terrorist attack.
- Society experiences a conflict situation similar to war.

The potential impact on an individual financial sector company may be summed up as follows. If any of these threats were realised,

- related parties (other financial market participants, customers) could not be used/reached
- information systems could not be used
- telecom links would not work
- personnel could not be reached
- premises could not be used.

Each of these scenarios would have its own chronological and geographical dimensions that would influence the effects and costs for society. A key feature is the threat of escalation. where the realisation of risk or a threat scenario in one part of the financial system would directly affect other parts of the system, hampering operations and leading to a multiplier effect. If serious enough, such a scenario could threaten the entire financial system and trigger a systemic crisis, ie 'system failure' due to the realisation of risks and disturbances.

Authorities provide the base for preparations against crises

It is essential that both authorities and financial sector companies prepare in advance for potential threats. Such preparations would aim, on one hand, to prevent crisis situations arising in the first place while, on the other hand, minimising the impact if a crisis were to occur nevertheless. To this end, both authorities and individual companies in the sector must have appropriate plans and measures in place in advance and tested in crisis exercises.

Attitudes to crisis preparation naturally vary between authorities and between individual participants. From a central bank perspective it is particularly important to prepare at the level of the system as a whole rather than that of the individual company or other participant.

Finnish preparations for financial crises and all potential threats to the system can be divided into two levels: national and international. At national level, planning is shaped by Finnish legislation - particularly the Emergency Powers Act – and guidelines issued to financial sector companies by the relevant authorities. There is cooperation between the financial market authorities (Ministry of Finance, Bank of Finland, Finnish Financial Supervision Authority, Ministry of Social Affairs and Health, Insurance Supervision Authority). Preparations are given concrete form via eg the National Board of

Preparations would aim, on one hand, to prevent crisis situations arising in the first place while, on the other hand, minimising the impact if a crisis were to occur nevertheless.

Economic Defence's financial services pool, which brings together all relevant authorities and market participants in Finland.

At international level, the banking supervisors, central banks and finance ministries of the European Union agreed in 2005 a memorandum of understanding on cooperation in financial crisis situations.

Increased international cooperation reflects both increasing links between national financial systems and deepening financial market integration in Europe. The latter has led to a more centralised structure, in which a single centre can offer services to the entire European market area. Large financial institutions operating in several countries have rapidly grown in importance in recent years. Also relevant from a Finnish perspective is the Nordic dimension, as Finland's financial market is in many ways closely linked to the other Nordic markets.

According to the aforementioned memorandum of understanding, other authorities should be informed in the event of a possible systemic risk, or if one or other party wants to find out if such a risk exists. The memorandum only covers situations where there is thought to be crossborder implications. It is not legally binding, being a document of intent based on voluntary cooperation.

In the Eurosystem, crisis preparations are shaped by a number of factors, including the joint TARGET

payment system run by the European System of Central Banks. In 2003, Nordic central banks signed a memorandum of understanding on financial crisis management. In addition, central banks and supervisory authorities in a number of countries have their own bilateral or multilateral agreements on cooperation. In terms of content, the European and Nordic memoranda concentrate mainly on describing principles, operating methods and the organisation of crisis management in the event of a crisis. Arrangements for the sharing of information in managing crises are a fundamental issue in the memoranda.3

Business continuity planning

In addition to official preparations, the effective management of crisis situations requires as a matter of urgency that financial sector companies also have their own individual business continuity plans and contingency arrangements. Business continuity planning by individual companies and organisations sets out from business principles, agreements with customers and related risk management arrangements.

Financial system risk management, threat prevention and improvement of crisis management capabilities all require constant

Increased international cooperation reflects both increasing links between national financial systems and deepening financial market integration in Europe.

See, for example, the 2006 special edition of the Bank of Finland Bulletin on financial stability in Finland (Financial stability 2006). Page 76 lists all international and national memoranda of understanding signed by the Bank of Finland for the securing of financial stability and the management of financial crises.

Are voluntary agreements between authorities and financial sector companies' own business continuity planning sufficient to manage a serious financial crisis or disturbance?

updating and reassessment. In the area of prevention, particularly important at the level of the individual organisation is business continuity planning, the aim of which is to prepare in advance for possible problem situations.

With good planning, companies seek to ensure they are able to continue operating with the smallest possible losses, and to fulfil their obligations even when operations are disrupted as a result of some internal or external event. Besides information system disturbances, other possible disruptive events could include human error, malpractice, a telecommunications break, electricity power cut, fire, water damage, partial or total destruction of premises or the loss of key personnel. Examples of business continuity planning are the use of backup premises and duplication of information systems and electricity supply or transmission lines.

From the perspective of society as a whole, however, business continuity planning of this sort is not really enough and has to be supplemented with other steering mechanisms, such as the agreements mentioned above, statutory obligations and joint action by authorities and companies in the sector.

Assessment of arrangements and their further development through

A topical issue both in Finland and in other European countries is the adequacy of the action and planning

that have already been completed. In the final analysis, is a framework based on voluntary agreements and financial sector companies' own business continuity planning sufficient to manage a serious financial crisis or disturbance affecting several countries?

This question is topical in Europe at present due in part to the increasing importance of large multinational financial corporations. This has led to the networking of production, services and indeed the whole sector and the growth of mutual interdependence across national borders. At the same time, the trend at company level to concentrate on core competencies has led to increasing outsourcing of support functions and services.

The financial system is structurally centralised, particularly in small countries. Against this background, a subsidiary or branch office of a large multinational operator can be systemically important in a small country, and this could pose a problem in the event of a need for crisis management. Statutory control or regulation are highly problematical in an integrated world with free movement of capital.

One answer to this question in recent years has been for authorities to work together and in concert with market participants to organise various crisis exercises. These allow them to test the effectiveness of the memoranda of understanding on crisis management and companies'

own readiness in the face of major risks or significant disturbances. Exercises are generally based on a scenario in which the financial system is threatened with crisis simultaneously in several countries at once.

Authorities in the European Union and the euro area have jointly organised a number of financial crisis exercises and simulations. In 2006, there was both an EU-wide exercise and a separate crisis simulation exercise for the Eurosystem. The Nordic Countries have also arranged crisis exercises among themselves.

In the United Kingdom, the ability of the financial system to withstand crisis has been tested in large annual exercises, with participation from both authorities and market participants.4 Among other things, the exercises have focused on the management of pandemics. The most recent financial market contingency exercise in Finland was PATO 2005, which tested the crisis capabilities of both authorities and other parties.

Experiences with these exercises have been for the most part positive. Both the authorities and the representatives of market participants who have participated in the exercises have felt them to be extremely useful. One key focus of testing has been the

flow of information between authorities in different countries.

The exercises have, however, also highlighted the need for development in a number of areas. One of these is to ensure the formation of a common assessment between the different involved parties when crisis threatens or in the event of a disturbance in the financial system. A review of crossborder actions has also been raised. Moreover, the European crisis management system has not yet been tested in a real crisis affecting more than one country.

From the point of view of the Eurosystem, the crisis exercise in 2006 confirmed the preparedness of the Eurosystem for dealing with potentially systemic events that might affect the euro area financial system. Within the Eurosystem, work has already begun on developing improved financial market infrastructure business continuity plans, particularly with reference to the euro area. A characteristic feature of continuity planning in the Eurosystem is the general complexity of systems and the differences in perspective between different institutions.

Challenges for crisis management

The development of Finland's financial markets in recent years as part of the integrating European financial market area poses a number of clear challenges regarding crisis management against potential threats and crises. A high level of dependency

Authorities in the European Union and the euro area have jointly organised a number of financial crisis exercises and simulations.

See www.fsc.gov.uk, Tripartite initiatives: Financial Sector Market Wide Exercise 2006 Report. In the United Kingdom, the Bank of England, the Financial Services Authority and the Treasury engage in extensive cooperation in the area of financial system continuity planning.

The international nature of possible crises strongly increases the importance of being prepared in advance.

on the flawless operation of information technology is one clearly discernible trend and is taking on new forms. The share of the Finnish financial market in foreign ownership is considerable due to the arrival of large international financial corporations.

European integration exposes national financial systems to disturbances occurring elsewhere and to the knock-on effects of these disturbances. For this reason, both preventive actions and methods of crisis management must cover the entire European Union.

Meeting to these challenges requires constant effort, particularly for authorities in small countries. Credible crisis management and preventive action require wideranging international cooperation between financial market authorities (central banks, supervisors and finance ministries).

The international nature of threat scenarios and the crises that could potentially affect Finland's financial system strongly increase the importance of being prepared in advance. The possibility of escalation and the scale of the potential costs from serious crises and disturbances mean that thorough business continuity planning at the level of the individual company or organisation is extremely important and a fundamental component in sound crisis management.

Keywords: financial crises, threat scenarios, crisis simulation exercises, business continuity planning, crisis management

Globalisation and the challenges for central banks' financial statistics¹

15 November 2006

Monetary policy decision-making and the task of promoting the stability of the financial system require central banks to have comprehensive data and an up-to-date analysis of trends in the monetary economy and financial markets. The market has an abundance of data to offer on these topics, but it is hard to obtain an overall analytical picture of increasingly globalised and complex markets. Moreover, essential data needed for decisionmaking has to be acquired as cheaply as possible.

Statistical data provides the most reliable information base on which to assess the macroeconomy, the financial markets and financial market stability. Macroeconomic data is required on the development of monetary aggregates, credit and interest rates. Sectoral trends in savings and lending play an important role in analysing the state of the economy at any given moment. Financial market developments are monitored with the help of volume and prices on foreign exchange markets, financial instruments and

shares. Income and balance-sheet data on monetary financial institutions (MFIs) in turn provide a fundamental tool for analysing stability and systemic risk in the financial markets.

In addition to their own requirements, national central banks also cater to the needs of other economic agents, such as the financial sector as a whole and the general public, by publishing key statistical data on their area of responsibility.

Do central bank financial statistics adequately describe the global financial markets?

Globalisation is speeding up integration and mutual interdependency between countries and regions, markets and economic agents. Its effects are seen in the form of changes in the competitiveness of national economies, corporate structures, the competitive situation of banks and the financial behaviour of households. Combined with rapidly changing financial markets, globalisation thus increases decision-makers' need for data on which to base their decisions. Statistical problems caused by insufficient data generally accumulate in international capital movements. International capital flows are growing considerably faster than trade in goods and services.

There are risks relating to the globalising financial markets that could be realised very rapidly. The lack of systematic, up-to-date information has been highlighted, eg



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¹ This article is based on a joint paper written by the author together with Steven Keuning and published in the proceedings of the third ECB conference on central bank statistics in May 2006. Contributions to the conference were requested from prominent academics, central bankers and bank representatives. The aim was to provide a forum for a variety of views and interchange of ideas on central banks' current statistical output and the needs of the future in a global environment. Conference proceedings can be read on the ECB website (http://www.ecb.int/events/conferences/html/ eastats3.en.html).

It is demanding for central banks to monitor new thenomena of importance to financial system stability, as there is hardly any systematic, reliable data available on them.

in connection with the financial crises in emerging economies during the past ten years. Problems have also emerged in assessing the global imbalance in savings and investments, and the investment of Asian central banks' foreign reserves and the current account surpluses of oil-producing countries. Moreover, hedge funds, complex financial derivatives and many other complicated new financial instruments that are not covered by traditional regulation increase the possibility of crises in the financial system. As concrete examples we could mention the strong increase in recent years in institutional investment in commodities and unlisted equity funds and the growing use of credit risk transfer instruments. It is demanding for central banks to monitor these new phenomena despite their importance to financial system stability, because there is hardly any systematic, reliable data available on them. Central banks must be able, however, to set soundly delimited objectives for statistical contents. Otherwise monitoring might place unreasonable cost burdens on data providers or the compilers of statistics.

Improving the statistical base is a demanding task

Thus, globalisation would seem to increase the pressures for augmenting the collection of data on new financial phenomena, but at the same time gives no cause for automatically discontinuing the old data requirements. This

being the case, the monitoring of new phenomena will most often require additional resources and involve additional costs. In response to the generally tighter expenditure conditions currently prevailing, central banks are nowadays attempting to use costbenefit analysis to assess the importance of new data requirements before deciding to commence collection of new data from the market.

The use of cost-benefit analysis is made more awkward by the difficulties involved in measuring the benefits of new data. Above all, it is hard to assess how important these phenomena will be in the future from the perspective of decision-making on monetary policy and/or the stability of financial markets. It is also hard to assess the benefits for other actors, such as the financial sector itself. In general, actors in the sector consider it important to monitor eg the market share of their own products, which in turn requires an overview of the size of the market as a whole. Moreover, statistics – as a public good– rarely generate a direct financial return that would help in assessing their benefit.

New statistics can provide a good cost-benefit ratio if the users and providers work together closely enough in agreeing the new data requirements and statistical procedures. This cooperation needs to be particularly deep between central banks and the rest of the financial sector. In addition, in the case of global financial statistics, there needs

to be a degree of flexibility with regard to national procedures. Customary national practices cannot determine the importance of the phenomena in this case, and national borders are irrelevant when considering international financial markets. If national data requirements can be relaxed, it would be possible to achieve efficiency gains, eg within the euro area. In this case, the sample sizes for statistics based on sampling would be determined at euro area level instead of nationally as at present.

Would it be possible to combine the data requirements for monetary policy and financial system oversight and supervision?

Monetary policy is centralised in the euro area and the most important data-collection contents have been harmonised by regulations. The actual collection of data is, however, decentralised to the national central banks, and as a result the detailed content of reporting various considerably across euro countries. Many central banks still gather nationally relevant data in addition to the data required by the Eurosystem. This significantly increases the reporting burden, particularly on multinational banks, compared with a situation where they could report in a uniform way to each central bank.

Eurosystem statistics have developed rapidly in recent years. Under the division of labour between the ESCB (euro area and other EU countries) and Eurostat (Statistical Office of the European Communities), the ECB and the national central banks are responsible for Community monetary and banking statistics, financial market statistics and statistics on international capital movements, direct investment and foreign reserves.2 Data on the euro area financial sector is still perceived to be insufficiently comprehensive and harmonised, eg in respect of insurance companies and pension funds, mutual funds, securitisation and loan collateral. The pressures to increase the monitoring of economic trends across the euro area as a whole are also seen in the ECB's ambitious initiative to develop sectoral accounting at euro area level that combines both real and financial accounting.

To date, harmonisation is even less advanced between supervisors, and reporting by monetary financial institutions comes under national legislation. Financial supervisors in the EU and elsewhere ask the financial sector for different types of data and in different forms. This is slowing down the process of financial services integration. Within the EU, there has been progress in coordination and harmonisation, with the updating of banks' capital adequacy calculation (Basel II) and the harmonisation of international financial

There are still some gaps in the data on the euro area financial sector.

² To avoid unnecessary duplication of work, the division of responsibilities for EU-level economic and financial statistics has been agreed in a joint memorandum of understanding between the ECB and Eurostat, last updated in 2003. See http:// www.ecb.int/pub/pdf/other/mouecbeurostaten.pdf.

reporting standards (IFRS) for listed companies. These are major changes with implications for both financial system stability and financial reporting. Application of Basel II will commence in 2007, and the transition to IFRS accounting practices is already underway in a number of countries. The Committee of European Banking Supervisors (CEBS) has consistently sought to harmonise the reporting requirements for banks. It has driven two initiatives, one aimed at achieving a common reporting framework (COREP) for capital adequacy in line with the requirements of Basel II, and one aimed at establishing a standardised financial reporting framework (FINREP) for credit institutions that prepare IFRS financial statements. The CEBS has also decided to support the introduction of a new reporting language (XBRL – eXtensible Business Reporting Language) in connection with both frameworks.

These initiatives include numerous benefits, as for example a level competitive playing field throughout Europe for banks and other financial sector enterprises, because supervisors will as a result adopt common reporting frameworks. These will reduce banks' administrative costs and facilitate easier exchange of information between supervisors. Uniform data collection forms employing XBRL language will allow the combination of decentralised data collection with the possibility to use the collected

data flexibly, in similar manner to a centralised database. This will enhance the cost-effectiveness of supervisory functions.

The challenge for central banks is how to combine the data requirements of monetary policy and supervision into a package that would minimise the cost burden on data providers. The burden should, moreover, affect different data providers equally, irrespective of where they are located. London, among others, is competing strongly with the euro area as a location for bank headquarters. It would not be desirable if administrative costs were to become the determining factor regarding location and influence banks to move outside the euro area, for example.

Increasing the common elements of data collection can be achieved through closer cooperation between central banks and supervisors. In discussions on this issue it has been suggested that financial institutions could gradually go over to providing unit and security-specific data in their reporting, because at this level the differences in perspective between monetary policy and stability monitoring do not yet apply. A general trend already discernible is the increased use of various sorts of registry data in the preparation of financial statistics. In addition to security-specific registries, many euro area countries also maintain loan registers with data on individual loans. This data can be used to

The challenge for central banks is to combine the data requirements of monetary policy and supervision in such a way as to minimise the cost burden on data providers.

produce both aggregate statistics and the institution-specific data required by supervisors. Moreover, when considering reporting requirements, central banks can seek to ensure the data requested from financial institutions corresponds to the data used in the internal management systems of banks and other institutions. This will lead to considerable cost savings and help to ensure the data can be used in monitoring risks in the sector.

Sound administrative procedure in central bank statistics

There are several different agencies involved in preparing financial sector statistics. As well as central banks, supervisors and statistical authorities, many international organisations also require data from financial institutions. In most cases they also have the right to participate in the planning and preparation of financial statistics. The International Monetary Fund (IMF), Bank for International Settlements (BIS) and Organisation for Economic Cooperation and Development (OECD) each collect financial sector data for their own reasons, most often via the national central banks.

The International Monetary Fund plays an important role in coordinating international standards relating to important macroeconomic statistics. It is of central importance in promoting cooperation between international and national actors. The IMF also fosters the adoption of best practices in national statistical

systems. The Bank for International Settlements is responsible for compiling statistics on cross-border business conducted by the banks, such as data on banks' country and credit risks. The OECD meanwhile publishes data on things such as international liquidity positions and international emissions.

The process of making data comparable between countries and suitable for aggregation often leads to supplementary requests for data and hence places additional burdens on data providers. There are also good grounds for asking whether the existence of so many participants causes a risk of overlapping decisions and unnecessary duplication of effort.

The avoidance of overlapping decisions and the use of mutually compatible concepts in financial statistics can be ensured by observing good administrative procedure and coordinated cooperation. In decisionmaking related to statistics, authorities do indeed endeavour to observe specific, generally explicitly expressed, principles. Many organisations have gone further and enhanced their own administrative procedures by publishing their own codes of practice, in which they undertake to observe agreed procedures. Common principles in these published codes of practice include the political independence of statistical compilation, an emphasis on the public nature of statistics, their clarity and comprehensibility, and cost-effectiveness.

The use of *mutually* compatible concepts in financial statistics can be ensured by following good administrative procedure and coordinated cooperation.

Particularly good governance is required in the compilation of statistics for use in administrative or political decision-making. Examples we could mention include the Maastricht Treaty's convergence criteria for joining monetary union and the statistics required by the euro area's excessive deficit procedure. These statistics are the responsibility of statistical authorities, but the latter could clearly benefit at the conceptual level from the expertise that can be provided by central banks.

Growing need for international cooperation and coordination

The key challenge for central bank statistics is how to manage under the pressures for change caused by globalisation. There are numerous new data needs, and central banks have to decide the extent to which they should set out to compile systematic statistics to meet these needs. They will also have to determine whether sample-based data collection and indicator-type data will suffice, which would make it possible to avoid the burden of having to collect comprehensive data.

Another key issue is which authority would be the most natural choice to bear responsibility for international coordination and the monitoring of new phenomena. The challenges of ever-broader globalisation can be met only through increased cooperation and constant dialogue between all involved parties. The ECB could take the leading role within the Eurosystem, but in close cooperation with all other parties.

With globalisation bringing more intense competition between countries, administrative costs have also become a more significant issue. Compilers of statistics seek to minimise the reporting costs of data providers and maximise the exploitation of existing data. This can only work if they have unlimited access to all significant sources of data naturally taking account of data confidentiality. Even so, quality statistics will inevitably involve some degree of administrative burden on business.

Keywords: globalisation, financial statistics, central banks, supervisors, international cooperation and coordination

Publications

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

The Bank of Finland's publication operations are becoming largely electronic, in terms of both publication and distribution.

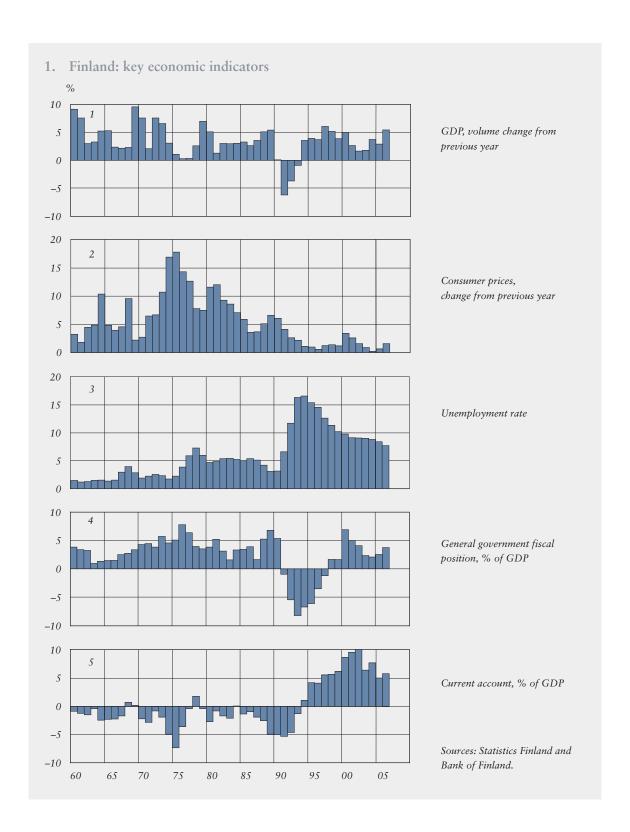
The Bank of Finland has introduced a free electronic subscription service on its website, through which it is possible to order the Bank's publications in electronic form. The subscriber is sent an email alert whenever the publication(s) subscribed to are newly released.

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Back copies of older printed publications still in stock can be ordered from the Bank of Finland (www.bof.fi).

Charts

- 1. Finland: key economic indicators
- 2. Price stability in the euro area and Finland
- 3. Official interest rates
- 4. International long-term interest rates
- 5. Bank reference rates in Finland and 12-month Euribor
- 6. Average lending and deposit rates
- 7. Stock of bank lending by interest rate linkage
- 8. MFI loans to private sector
- 9. Competitiveness indicators for Finland
- 10. Selected stock price indices in the euro area
- 11. Listed shares in Finland: total market capitalisation and non-residents' holdings
- 12. Bonds issued in Finland
- 13. Public sector balances in Finland
- 14. Public debt in Finland
- 15. Finland: goods account and current account
- 16. Finland: services account and income account
- 17. Regional distribution of Finnish exports
- 18. Finnish exports by industry
- 19. Finland's foreign trade: export prices, import prices and terms of trade
- 20. Finland's net international investment position
- 21. Finland: GDP and industrial production
- 22. Unemployment rate in the euro area and Finland
- 23. Hourly labour costs in the euro area and Finland
- 24. Selected asset prices in Finland



2. Price stability in the euro area and Finland

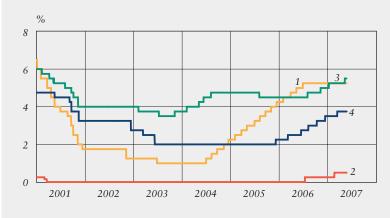


Harmonised index of consumer prices, 12-month change, %

- 1. Euro area
- 2. Finland

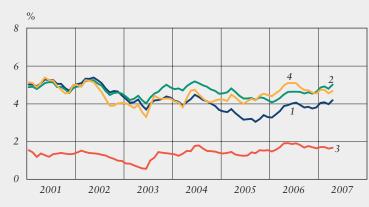
Sources: Eurostat and Statistics Finland.

3. Official interest rates



- 1. USA: fed funds target rate
- 2. Japan: overnight call rate
- 3. United Kingdom: repo rate
- 4. Eurosystem: minimum bid rate Source: Bloomberg.

4. International long-term interest rates

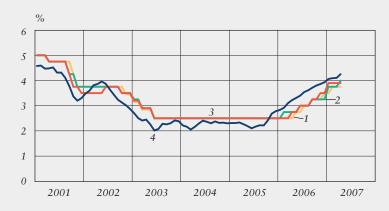


Yields on ten-year government bonds

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

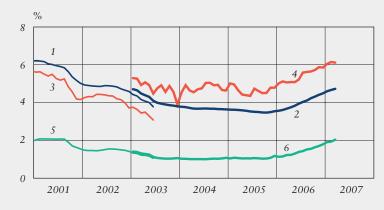
Source: Reuters.

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.

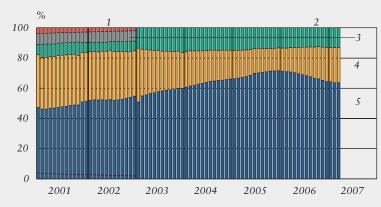
Average lending and deposit rates



- 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.

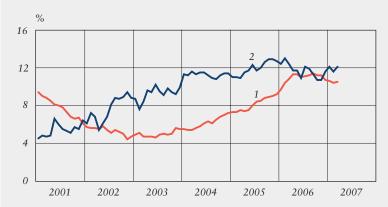
Stock of bank lending by interest rate linkage



- 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.

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.

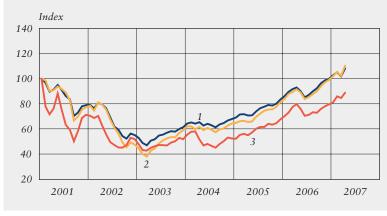
Competitiveness indicators for Finland



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

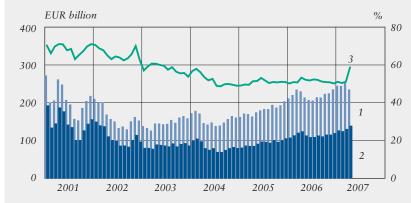


January 2001 = 100

- 1. Total euro area: Dow Jones Euro Stoxx index
- 2. Germany: DAX index
- 3. Finland: OMX Helsinki All-Share Index

Sources: Bloomberg and Helsinki Stock Exchange.

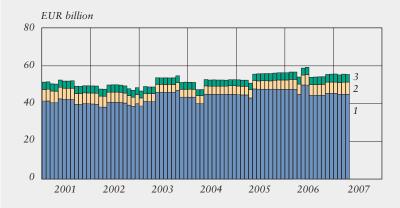
11. Listed shares in Finland: total market capitalisation and non-residents' holdings



- 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: Helsinki Stock Exchange

and Finnish Central Securities Depository (APK).

12. Bonds issued in Finland

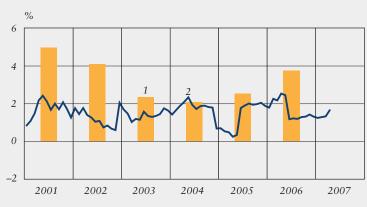


End-month stock

- 1. Central government
- 2. Financial institutions
- 3. Companies

Source: Statistics Finland.

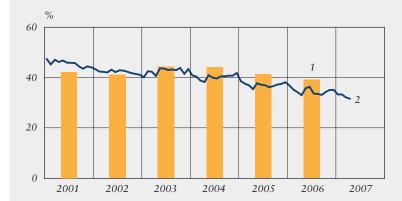
13. Public sector balances in Finland



% 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

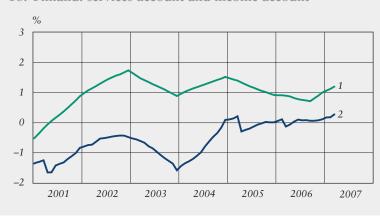
- 1. General government debt
- 2. Central government debt, 12-month moving total Sources: State Treasury, Statistics Finland and Bank of Finland.

15. Finland: goods account and current account



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

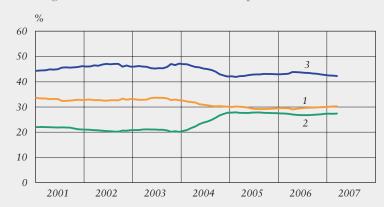
16. Finland: services account and income account



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

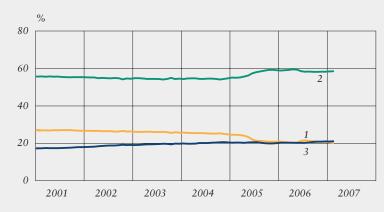


12-month moving totals, percentage of total exports

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

Sources: National Board of Customs and Statistics Finland.





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

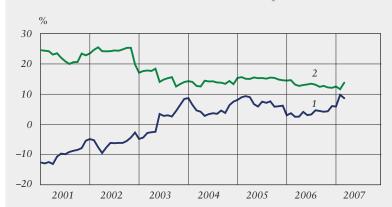


2000 = 100

- 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.

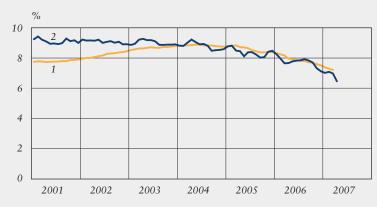
21. Finland: GDP and industrial production



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

Sources: Eurostat and Statistics Finland.

24. Selected asset prices in Finland



1987 Q1 = 100

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

Source: Statistics Finland.

Organisation of the Bank of Finland

4 May 2007

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