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The cover picture depicts the national motif on the Maltese 2 euro coin: the emblem of the Sovereign Order of Malta (St. John's cross).

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# Monetary policy and economic outlook

3 December 2009

The world economy returned to growth during the third quarter of 2009. The upturn has been based largely on expansionary economic policy and certain other temporary factors, and the sustainability of growth is therefore still uncertain. Moreover, the differences between countries and economic regions have grown. In the euro area, growth is taking off more slowly than in many other areas. In Finland, the signs of an upturn are still weak. Euro area inflation has turned positive, but inflationary pressures remain weak.

Since the spring, there have been positive signs of growth in the world economy. Strongly expansionary monetary and fiscal policies allied to exceptional support measures in the financial sector have been reflected in increasing stability on the financial markets and have helped foster an upturn in the real economy. In China, in particular, and in many other emerging economies of Asia economic growth has been rapid during the summer and late autumn. Recovery has been slower in the developed economies, but in recent quarters there have also been signs of a return to growth in the United States, the euro area and Japan (Charts 1 and 2). As a result, many forecasters have amended their growth forecasts upwards.

Despite the increased optimism, the basic economic picture has not changed significantly since the world

economic forecast released by the Bank of Finland in September. In addition to economic policy, the recovery in growth has gained from other temporary factors such as the end of the present phase of inventory adjustments. As the effects of these temporary factors begin to fade, the pace of growth is likely to slow again in the first half of 2010, before endogenous growth begins to take off

Chart 1.

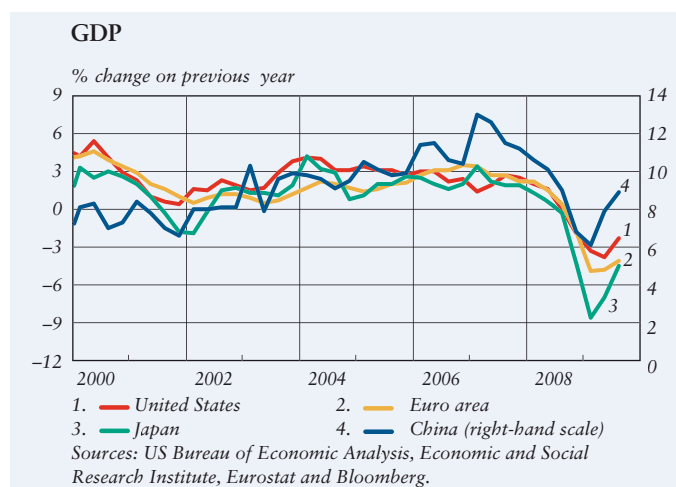
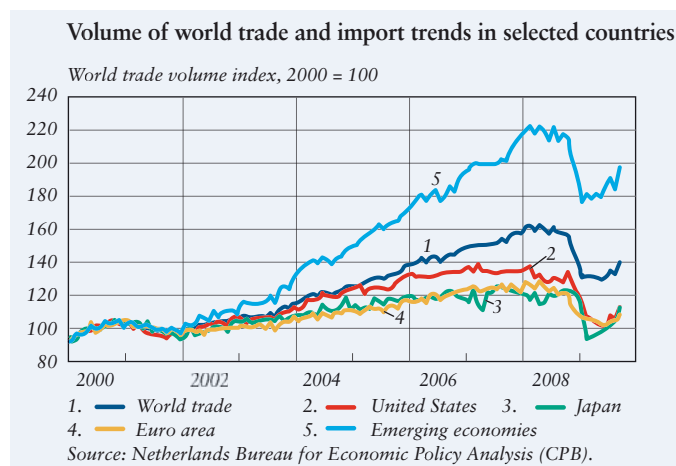


Chart 2.



*The present signs of stronger growth are based on public stimulus packages.*

again. In the immediate years ahead, world economic growth is likely to rest more than before on the emerging economies of Asia.

In order for economic activity to really take off, there will have to be a recovery in private consumption, investment and exports. The present signs of stronger growth are, however, based crucially on public stimulus measures, the impact of which will be temporary. Previous experience has shown that when a financial crisis has been a key component both of a recession and of its causes, the economic recovery after the recession will be slow.

The most acute phase of the financial market crisis was passed in spring 2009. The impact of the substantial support measures taken by the authorities and the calming assessments of the banking systems in different countries published at that time dispelled the worst fears and successfully cut the deepening spiral of crisis. The recovery in the financial system has been rapid – in fact so rapid that some voices have recently expressed doubts over its sustainability. The crisis in Dubai serves as a reminder that the situation is still very fragile.

Although the operating capacity of the financial markets has in many respects begun to recover, financial intermediation is, on the whole, still functioning inadequately. For example, the credit markets remain tight, which contributed to the strong

contraction in international trade at the end of 2008. According to an OECD assessment, approximately a third of the contraction was caused by problems with trade credits.

Current data suggests the pace at which banks are tightening their lending criteria has slowed and the process of tightening is possibly reaching a turning point. This is partly because banks' own funding costs have themselves stopped growing. Bank lending is, however, still influenced by the general uncertainty over the direction of the economy as well as growing loan losses. Funding costs are keenly influenced by the condition of a bank's balance sheet. Moreover, within the space of the next few years, banks in the United States and the United Kingdom, in particular, will have to refinance large amounts of maturing bonds. Disturbances in the real economy or banks' own fund raising could cause a rapid tightening in banks' lending policies and hamper their ability to lend.

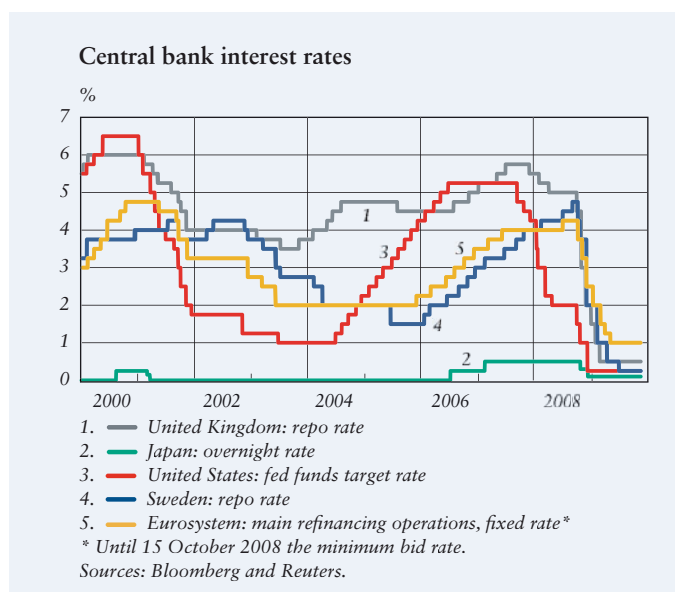
The development of the real economy is still surrounded by numerous uncertainties, both long-term and short-term. Long-term factors include uncertainty over the impact of the crisis on potential output, the pace of potential output growth and the growing burden of general government debt. In the short term, the general uncertainty is increased by uncertainty over the phasing out of expansionary

economic policies and the immediate impacts this will have. Monetary policy in the main economic regions is at present highly expansionary (Chart 3) and has been implemented at record speed and in synchronisation with other economic support measures. Low interest rates have substantially boosted the debt-servicing ability of many households and businesses.

Fiscal policy has been more effective than normal during the financial crisis, with the situation unusually suited to a proactive fiscal policy. However, the reduction of the financing restrictions affecting the private sector and the rise of interest rates from their present exceptionally low levels, which can be predicted to happen before long, will seriously erode the present effectiveness of fiscal policy. Together with the badly swollen budget deficits in many countries and rapidly growing levels of debt, this will make it essential to prepare and implement a credible strategy to cut the accumulation of further debt.

One factor that brings particular uncertainty to the outlook for the world economy is the current process of debt unravelling, which is having an extensive impact on the financial, corporate and household sectors of regions previously in deficit. The unravelling of debt and accumulation of capital will weaken the financial sector's ability to finance economic growth. At the same time it will boost

Chart 3.



savings in the household and corporate sectors and reduce the rate at which new debt accumulates. At the present moment, there appears to be little demand for credit in many developed economies, including the euro area. According to the Eurosystem survey of bank lending in October 2009, corporate credit demand has been subdued by the lack of investment demand. The capacity utilisation rate is low, which means companies have no need to invest in new capacity.

In addition to the weak investment outlook in industry, household demand, too, is sluggish. The recovery in consumption demand is being hampered by the near-term outlook for employment, which is shrouded in perhaps even greater uncertainty in the euro area than in the United

States. So far, consumption demand in the euro area has remained surprisingly stable compared with previous recessions. An increase in unemployment would subdue consumption demand and could also aggravate the situation of indebted households, thereby increasing loan losses for the

banks. In the euro area, the greatest negative impact on aggregate output demand has come from the contraction in world trade. Going forward, the situation will be aggravated by the appreciation of the euro (Chart 6).

The important issue for world trade will be the sustainability of economic growth in Asia and how this feeds through to demand in other economic regions. China's stimulus-based growth has been strong, and this has also stimulated the economies of other countries in Asia and affected commodity prices on the world market.

The Finnish economy has contracted more during the recession than the average for the euro area, and the downturn has affected all main industrial sectors. The recession has impacted particularly hard on exports and industrial output, whose relative importance is greater in Finland than elsewhere in the euro area. Signs of an end to the downturn remain weak. According to monthly indicators, the Finnish economy would seem to have contracted further in the third quarter.

### Rapid improvement on the financial markets

On the stock markets, the return of risk-taking propensity has led since the spring to a rapid rise in share prices in both emerging and developed markets (Chart 4). The substantial support measures by governments and central banks,

Chart 4.

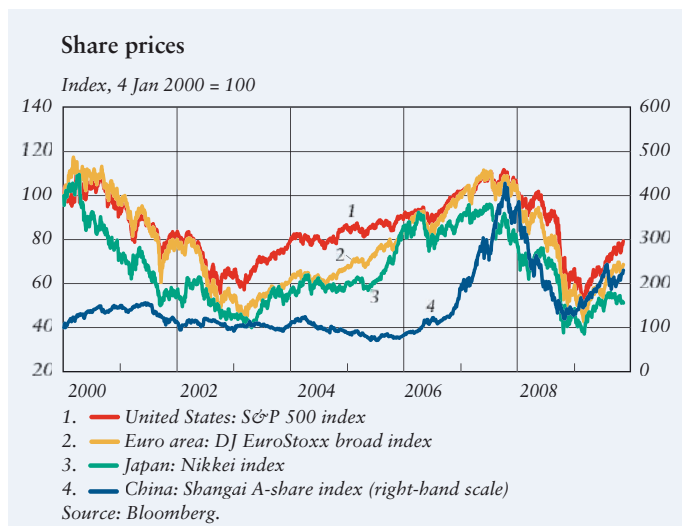
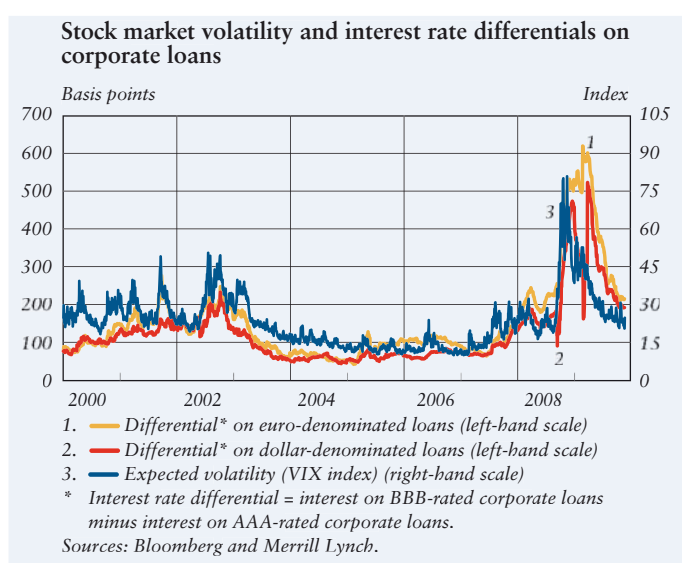


Chart 5.





abundant liquidity and low interest rates have all bolstered market developments. In the autumn, in connection with the publication of third-quarter earnings, doubts arose on the stock markets over the sustainability of the price rises, and the upward trajectory has moderated in recent months. Although third-quarter earnings were better than the markets expected, investors were disappointed in how the earnings had been achieved: primarily by companies cutting costs.

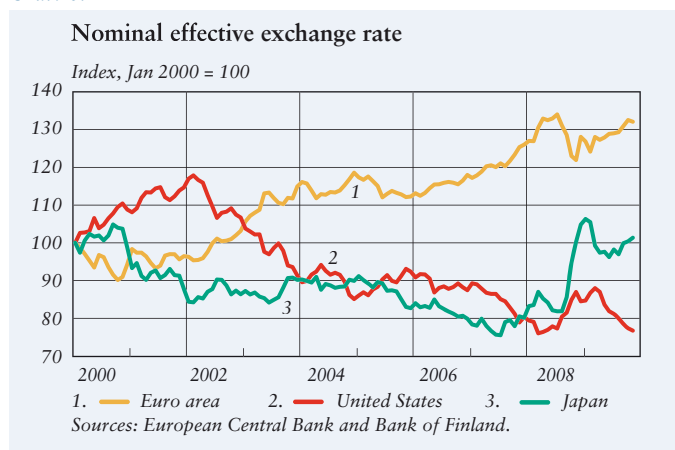
On the bond markets, risk premia have narrowed and the markets have picked up (Chart 5). There has been very strong demand for both corporate and government bonds, despite the fact that emission volumes have also been at a record high.

Corporate bonds have partly been used as a substitute for bank lending. Governments' need to issue large amounts of bonds is linked to the financing of their substantial support packages. General government deficits are, in fact, growing rapidly, eg in Europe: as a result of the substantial expansionary and support measures, the European Commission estimates the combined deficit in the European Union in 2010 will be equal to 7½% of GDP. This represents a substantial increase since 2008, when the deficit was 2¼%. As well as the support measures, the deficit has also been swollen by the decline in economic activity and contraction in the tax base.

There has, however, been sufficient demand for government bonds: banks in both the euro area and the United Kingdom have been particularly active in buying government paper. A similar phenomenon occurred in the United States in the early 1990s in connection with debt unravelling. At that time, there was a strong increase in the proportion of government debt instruments owned by the banks. The strong demand for bonds has contributed to the narrowing of risk premia, although there remains a substantial difference in the pricing of high and low credit risk. Governments whose public debt has risen strongly and whose credit ratings have declined also have to pay higher risk premia on the markets in order to borrow. This means higher debt-servicing costs.

One of the issues on the markets recently has been central banks' phasing out of their non-standard monetary policy measures and the

Chart 6.



*The markets expect central banks to begin raising interest rates in the second half of 2010.*

removal of excess liquidity from the markets. Although the outlook for economic growth has certainly improved, the markets expect most central banks will not begin to raise interest rates until the second half of 2010. Countries affected by the rapid economic growth in Asia, such as Australia, have, however, already begun to raise their rates. Many central banks have indicated they have the technical means ready to phase out their non-standard monetary policy measures, but they have stressed the actual decisions on phasing out will be made at a later date.

The Governing Council of the European Central Bank (ECB) decided at its meeting on 3 December to leave the key ECB interest rates unchanged. However, the Governing Council also noted that not all extraordinary liquidity measures will be needed in the future to the same extent as in the past. In order to avoid distortions associated with maintaining non-standard measures for too long, the Governing Council indicated it will gradually phase out, at the appropriate time, those measures that are no longer needed.

The decline in short-term market rates has flattened out during the autumn. The markets expect short-term rates to begin to rise moderately in the euro area and the United States from the second half of 2010. The combined rise in long-term rates and decline in short-term rates, and the

steepening this brought to the yield curve, thus appear to have come to an end. Long-term rates are, however, forecast to rise, in both the United States and the euro area. There is also a great deal of uncertainty over the potential effects of the termination of central bank bond purchase programmes. For example, in the United States a rapid rise in long-term rates would hamper the refinancing of housing loans, among other effects.

On the foreign exchange markets (Chart 6), a growth in risk-taking propensity was reflected in spring 2009 in the nominal depreciation of the key currencies the Japanese yen and the US dollar relative to the euro. A corresponding trend was also seen in real exchange rates. The weakness of the dollar has been broadly based, with a decline against several key currencies. This trend has been partly influenced both by some surplus countries' concern over the position of the dollar and the sustainability of its value, and also over the strong indebtedness of the US federal government, which explains the concern. Measured in terms of real effective exchange rates, the currencies of many emerging economies have appreciated strongly since the beginning of the year. This is partly the result of international investment flows, which have moved to countries with rapidly growing economies.

Emerging economies, particularly in Asia, have managed well during the recession, being bolstered



particularly by demand from China. As a result, their policy interest rates are facing upward pressures. In order to calm the upward pressure on its currency, Brazil has introduced a tax on capital imports other than direct investment. The position of emerging economies in Eastern Europe does not look as bright as the economies of Asia and Latin America. In Eastern Europe, a slow pace of growth is maintained by the region's dependency on the euro area, where the return to growth is also slow. In Russia, the restoration of the financial markets' willingness to bear risk and the improved economic outlook caused by the rise in the price of oil have, however, been reflected in upward pressures on the rouble.

### World economy growing unevenly

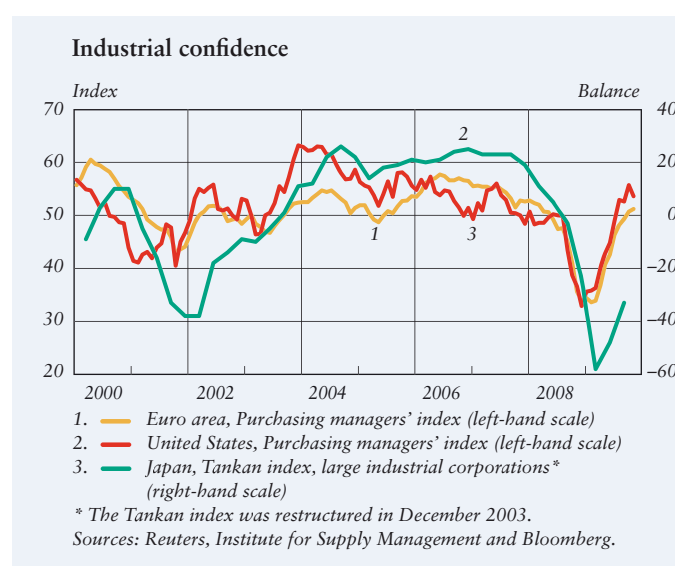
The world economy began to grow in the third quarter of 2009. The change has been clearest in industrial output (Chart 7), but other sectors have also shown signs of recovery. Asia has already been recovering for a relatively long period, with China leading the way, and in the third quarter other emerging Asian economies also showed very strong growth in output. Japan, too, has benefited from the demand growth caused by the strong stimulus package in China.

In the United States, too, GDP growth turned positive in the third quarter of 2009. Relative to the preceding quarter, growth was already reasonably rapid, at 0.7%

(equal to 2.8% annualised growth), but this was based on numerous one-off factors relating to support measures, the effects of which are gradually receding or have already receded.

The key to continued growth in the US economy will be the near-term development of domestic private demand. Domestic demand grew in the third quarter, but it was bolstered by one-off support packages such as the scrapping programme for old cars. A more sustainable acceleration in domestic demand will depend on an end to the weakening trend in employment. However, the US employment outlook is still weak. There is a threat that economic growth could occur without the need for a significant increase in the workforce, as happened after the last recession. This would lead to

Chart 7.



*In the United States, business confidence has improved, but household confidence remains weak.*

continued unemployment long into the future. Although the dollar has declined and world trade has begun to recover, there has still been no significant increase in US exports.

US industrial output has been growing already since July, but its absolute level remains very low. A low capacity utilisation rate and the continued sluggishness of new orders for industry do not suggest there will be a rapid upsurge in investment demand. Some investments, such as investment in information and communication technology, have, however, grown in the third quarter. Business confidence has improved, but household confidence remains rather weak. This is due to the continued rise in unemployment, which has also contributed to a rise in the level of savings.

The US housing market is showing signs of stabilisation. Although the stimulus measures (eg temporary tax relief for first-time home buyers) make it harder to judge the situation, house price indexes began to rise tentatively in the early summer. However, in addition to the adjustment of household balances, the possibility of a rapid turnaround in the housing market is restricted by the problems in traditional banking activities and the tightness of lending.

Within the banking system, loan losses are continuing to grow, if more slowly, and this is putting a particular strain on the traditional banking sector. In contrast, banks engaged in large-scale securities trading and

brokerage have recorded good results, as the recovery of the bond markets has boosted their business.

The risks to the US economic outlook remain substantial. With regard to household demand, the hope is that stimulus measures will trigger sustainable demand that can bolster economic activity. If household demand does not support economic recovery, there is a threat the United States could be facing a sustained period of slow growth. The US federal debt has swollen rapidly, and there is little room left for further stimulus measures. According to the European Commission's economic forecast released in November, relative to GDP, the US federal debt will grow close to 90% by 2011, approximately 25 percentage points above the pre-crisis level.

Euro area GDP declined substantially during the recession. The contraction in world trade caused a strong reduction in exports from the euro area at the same time as investment activities became subdued. More recently, however, the economy has shown some signs of stabilising. The region's GDP began to grow moderately in the third quarter, and industrial output, which a strong factor in the economic downturn, already began growing several months ago. The volume of industrial output in September was, however, still approximately 17% below the pre-recession heights. Industrial order books have also been growing cau-

tiously since the summer (Chart 8). In contrast, the sales volumes in the trade sector and construction have continued to decline. Confidence has grown in all key sectors of the euro area economy, with the exception of construction. The outlook for the construction sector is still weighed down by weak demand for offices and other commercial premises.

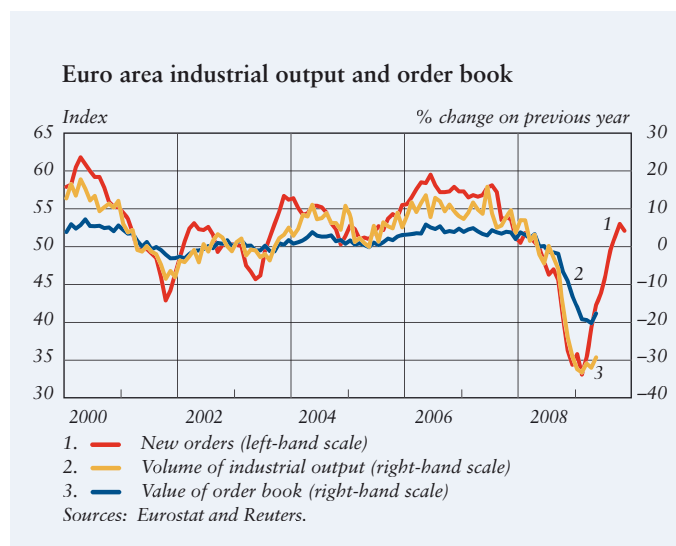
The recovery in world trade has contributed to the euro area's increased industrial output. In contrast, domestic investment demand is not supportive of growth, as the capacity utilisation rate in the euro area is still so low that there will be no near-term requirement for new investment. The lack of investment demand has also been highlighted in the lending survey for banks in the euro area, in which scarcity of investment has long been the factor identified as most responsible for the decline in demand for credit.

One problem in identifying the overall trend of the euro area economy is the different trends in different countries. Especially in those countries where the financial system has suffered substantially during the recession, or where the economy had shown signs of unbalanced development prior to the recession, there have been large drops in output or employment. At the same time, many countries have experienced a marked increase in their levels of public debt. On the other hand, in some euro area countries output has declined relat-

ively little and the increase in unemployment has not got out of hand.

In the United Kingdom, the economy has been sluggish. In the third quarter, GDP contracted a further 0.4% from the previous quarter. UK growth has now been negative for six consecutive quarters. Industrial output also declined in the third quarter, in contrast with many other large countries in Europe, although the importance of this sector to the economy as a whole is less in the United Kingdom than in many other countries. The country's economic outlook is also overshadowed by the swelling government deficit allied to uncertainty over the state of the banking sector and its ability to finance economic growth. International credit rating agencies have indicated the government deficit poses a threat to the United Kingdom's credit rating.

Chart 8.



*Japanese exports have been boosted by the stimulus package in China.*

Japan's export-dependent economy reacted very strongly to the international economic crisis in late 2008 and early 2009. The subsequent turnaround has, however, been rapid. Third-quarter growth relative to the previous quarter was 1.2%. The strength of the contraction is indicated by the fact that, despite this being the second consecutive quarter of rapid growth, the country's GDP is still approximately 7% smaller than before the crisis.

Despite the fact that exports account for only a fairly small share of the country's GDP (only around 14%), Japan is nevertheless highly dependent on exports. This is because the much larger growth figures for exports relative to private consumption in Japan means the impact of exports on economic growth has for years been greater than that of private consumption. The performance of the export sector also has considerable repercussions on the rest of the economy, for instance via the extensive network of subcontractors. Japanese exporters have benefited particularly from the strong stimulus package in China. The rapid recovery has been facilitated by free production capacity, as Japanese companies are, in their own estimation, currently operating at only 2/3 of capacity. In contrast, there are still no signs of recovery in the construction sector: new construction starts in September were 37% down on a year earlier.

A problem in all output sectors is the scarcity of private investment.

According to the Tankan business survey published in September, the situation is not improving. On the contrary, over-capacity and weak corporate earnings suggest investment will decline even further.

Japanese unemployment has eased slightly: the unemployment rate declined two tenths of a percentage point in October, to 5.1%. For Japan, this is a high level of unemployment, and, together with the fall in aggregate wages, makes it harder for private consumption to recover. Even government support measures, which have been specially targeted at encouraging people to buy environmentally friendly home electronics, have not succeeded in significantly reviving private consumption. Consumer confidence has, however, already been improving for some time.

Partly because of the above-mentioned weak consumption demand, deflation in Japan has stubbornly persisted. In October, prices declined an average 2.5% year-on-year, or slightly more than in previous months. The strengthening of the yen has also contributed to the drop in prices.

In China, third-quarter GDP was almost 9% up on the same period in 2008, and indicator data indicates growth continued strongly in October. Growth for the year as a whole looks set to reach the government target of 8%. A considerable part of this growth is due to China's stimulus policy and public invest-

*Much of China's rapid growth is due to stimulus policies and public investment.*

ment, but in future it will be harder to base growth on stimulus policy alone. China's USD 600 billion stimulus package was originally planned to cover two years. The central government's share of the package is around two thirds, with responsibility for the remainder split between local government, state-owned enterprises and the banks. According to some assessments, the central government will use slightly under a half of its own stimulus funds in 2009, but the strong growth in credit and investment suggests other actors have already invested strongly in the stimulus this year. The significance of the additional growth achieved with the stimulus funds will significantly decline in 2010, with private investment and consumption demand growing in importance.

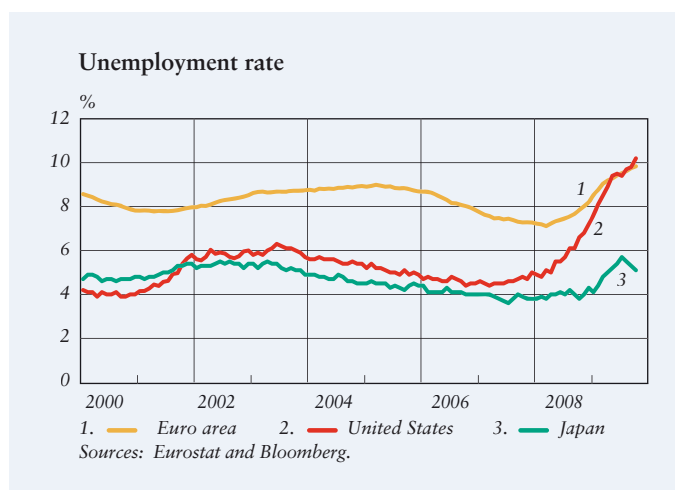
The Russian economy, which is very important from the perspective of Finnish exports, is showing signs of recovery. According to preliminary assessments by the Economy Ministry, the Russian Federation's GDP has been growing gently since June. Support for growth has come from agriculture and manufacturing. The decline in fixed investment has slowed somewhat, although the pace of decline is still considerable: investment in September was 19% down on a year earlier. Unemployment has so far remained relatively stable, at around 8%. The employment situation is, however, deteriorating, and unemployment is expected to

peak in the first half of 2010. The Bank of Russia has continued to relax its monetary policy. At the end of October, policy interest rates were cut for the eighth time this year.

### Employment trend creates uncertainty

The employment trends in both Europe and the United States are contributing to the uncertainty over the pace of the economic recovery. Employment has a very important role to play in both triggering domestic demand and determining the trend in loan losses, which are weighing so heavily on the financial system. In most previous recessions unemployment has peaked relatively quickly, but the return to higher employment has been a slow process. In the present recession, the unemployment trends in the euro area and the United States have been very different (Chart 9). There is a danger

Chart 9.



that the biggest drop in the employment rate in the euro area still lies ahead.

In October, the unemployment rate was 9.8% in the euro area and 10.2% in the United States (Chart 9). Euro area employment has remained relatively strong since the beginning of the recession, partly on account of supportive policy measures, such as shorter working hours in Germany. The smaller-than-expected decline in employment has also been reflected in many countries as a decline in productivity. Developments in the United States have been very different, with unemployment growing rapidly immediately the recession began to bite. The number of hours worked was also cut. The result has been higher labour productivity. It is possible that US unemployment will soon peak, to be followed by a gradual adjustment towards a lower level. In the euro area, unemployment

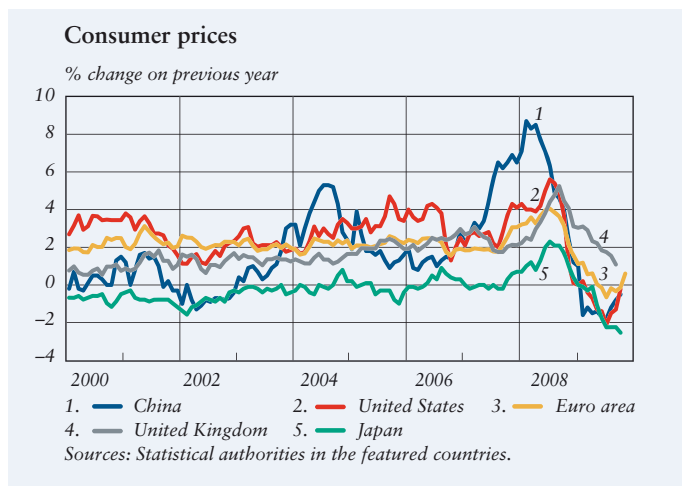
has grown relatively slowly since the start of the recession. The differences between countries are, however, considerable: eg in Spain the unemployment rate in October was 19.3%, which represents an increase of over 10 percentage points since the beginning of 2008.

One outcome of the European Commission's most recent economic forecast is the observation that, when viewed in longer-term perspective, unemployment and GDP growth have been following each other ever more closely. In recent quarters, however, this mutual interdependence has been weaker. This means that employment has not responded to changes in GDP in the same way as before. The forecast goes on to conclude that the euro area unemployment rate will rise further still. A worrying feature of previous recessions has been the fact that employment and GDP growth do not develop side-by-side to the same extent when the economy is pulling out of recession – in other words, the employment situation does not improve quickly as the economy recovers, but only after a delay. Moreover, unemployment tends to become lodged at a higher level.

### Euro area inflationary pressures low

Over the course of the summer, inflation has turned negative in many countries, including the United States, Japan, and China (Chart 10). In the euro area, too, inflation, or the

Chart 10.



12-month percentage change in the harmonised index of consumer prices (HICP inflation), was from May to October 2009 negative. This was primarily due to the effect of the reference period for energy prices, ie the price of oil in the reference months in summer 2008 was higher than this year.

As recently as October, HICP inflation in the euro area was still  $-0.1\%$ , and underlying inflation was  $+1.0\%$ . According to Eurostat's preliminary estimate, inflation became positive again ( $0.6\%$ ) in November 2009, once the reference effect had worn off. Looking ahead, inflation is also expected to remain positive in the medium term, ie over the policy-relevant horizon.

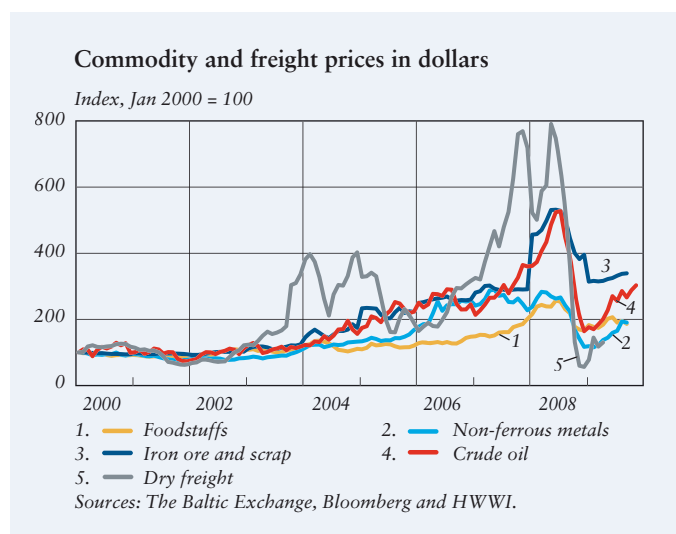
The deceleration in inflation has, however, been broader than simply the effect of energy prices, with underlying inflation (ie excluding energy and unprocessed foods) also slowing significantly. Despite the recovery in economic growth, the inflation outlook for the euro area is moderated by the subdued outlook for demand and the large amount of unutilised production resources. The strengthening of the euro has reduced the impact from rising oil prices, while the uncertain employment outlook is expected to dampen wage trends. On the other hand, there is still no sign of a broadly based, sustained decline in prices (ie deflation) in the euro area. In approximately 75% of industrial product

groups and almost 90% of service product groups the 12-month price change in October was positive.

Inflation expectations have also remained subdued. According to survey data, households' inflation expectations and corporate producer prices remain moderate and thus do not indicate a significant increase in near-term price pressures. Medium-term and long-term inflation expectations derived from financial market data also remain firmly anchored.

In respect of world market prices of commodities (Chart 11) the increased demand in emerging economies, especially China, has been very important. Although agricultural product prices have remained fairly stable, industrial metals and energy prices have shown a steady, if moderate, upward trend. The price of oil has also been clearly rising, and oil-producing countries have reviewed

Chart 11.





their demand projections for next year in the direction of stronger demand. In metals, the price of gold has risen most.

### Finland's economy performing below euro area average

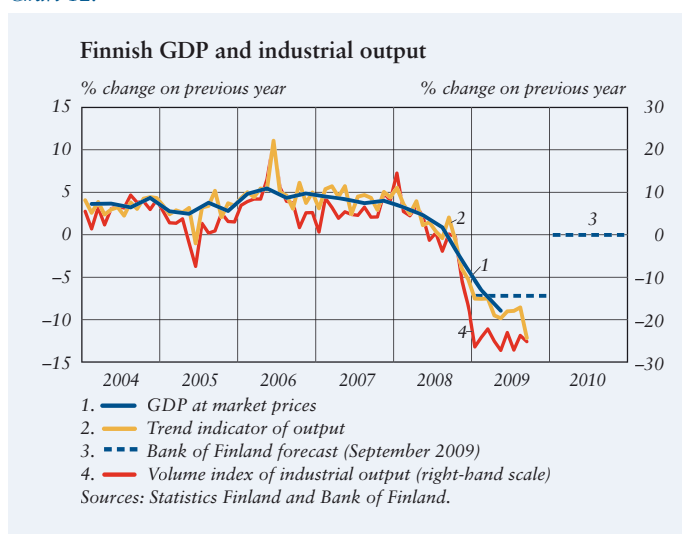
The Finnish economy has continued to contract across all main industrial sectors during the course of the autumn, and the available statistical data indicate the trend has actually been slightly weaker than anticipated in the Bank of Finland's September forecast. Seasonally adjusted figures from the trend indicator of total output show that in July–September 2009 output was approximately 1½% down on the preceding quarter (Chart 12). There is a certain amount of uncertainty involved in interpreting these figures, as their calculation methodology differs a great deal from the national accounts approach.

Although the latest indicator data suggest some sectors are already showing signs of improvement, the Finnish economy will begin to recover from the global recession later than the euro area on average.

The autumn has seen a continuation of the weak trend in Finnish industry. There is a lot of unused capacity and the scarcity of new orders is eroding order books. The near-term industrial outlook has, however, improved slightly in recent months. Output expectations for the quarters immediately ahead have improved somewhat. Both the chemical industry and the forest industries are showing tentative signs of improvement. Both have received some new orders and have increased output. In contrast, the outlook for the technology sector remains bleak. As a consequence of their sustained rundown, industrial inventories are currently smaller than normal. Their readjustment back to a more normal level should be reflected in increased output.

The construction industry is also in poor condition, although confidence and output expectations in the sector have improved a little during the autumn from the very low levels they had reached earlier. The revival of the housing market has encouraged companies in the sector to begin new projects. The stock of unsold new dwellings is now very small, as supply has declined more than demand. However, despite the

Chart 12.



brighter signs in housing, other construction is hampered by low demand and the excess capacity in commercial premises that has accumulated in recent years.

Services have continued to develop weakly in recent months. Turnover has declined in the trade sector and private services, but expectations for the immediate future have improved slightly. Meanwhile, the decrease in value-added tax on food and continued fairly strong household confidence provide a good basis for an improved performance in trade and services over the next few months.

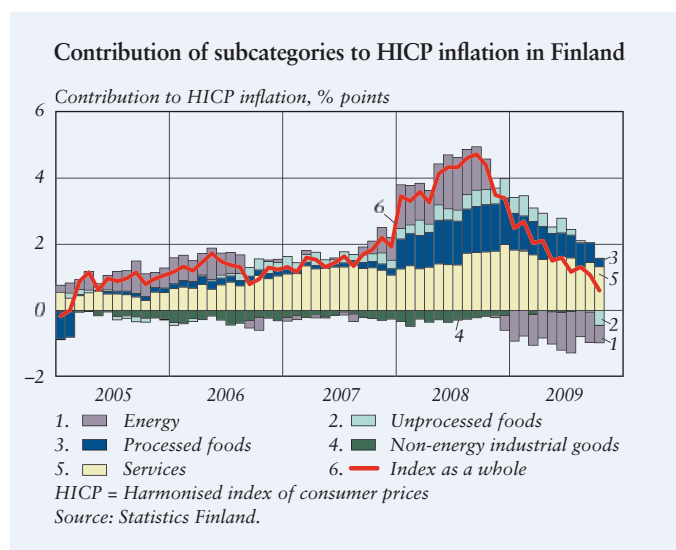
The labour market picture has become even more gloomy in the second half of 2009. In October, there were 60,000 more people unemployed than a year earlier, and the seasonally adjusted unemployment rate was up to 8.7%. The number laid off has also remained high in recent months. Considering the situation on the labour market, it has been surprising to see a clear improvement in consumer confidence in recent months.

Inflation as measured by the harmonised index of consumer prices has eased in Finland towards the end of 2009 with the reduction in value-added tax on food at the beginning of October. Inflation in October was 0.6% (Chart 13). Inflation has also been moderated by lower prices for fuel. However, despite the clear deceleration in consumer price inflation,

Finnish inflation in recent months has been one of the highest in the euro area.

Due to a low debt-to-GDP ratio, Finland's general government finances are in principle in a better position than those of many already indebted countries. However, the structure of the Finnish economy means that the problems in the global economy have undermined Finland's general government fiscal position more quickly than average for a euro area country. When, at the same time, the exceptionally large baby-boom generation is leaving the labour market, it is going to be exceptionally difficult to avoid the accumulation of further public debt. According to the Bank of Finland's September forecast, the general government fiscal position has deteriorated rapidly, and the deficit-to-GDP ratio will still be 5.3% in

Chart 13.



2011. In addition, like other countries in the euro area, Finland's general government debt will grow rapidly in the immediate years ahead. According to the September forecast, general government debt will have grown by almost 23 percentage points by 2011, to a full 56% of GDP.

As is the case elsewhere in the euro area, the present trajectory of Finland's public debt is unsustainable. Before long it will be essential to reach a level at which the debt ratio can be stabilised. The larger the debt ratio, the larger the primary surplus – the difference between revenues and expenditure (excl. interest expenditure) – that will be required in future.

Public indebtedness at the level of all EU countries has been a topic at recent meetings of the Ecofin Council, which has expressed the view that measures to stabilise the public finances should begin by 2011 at the latest.

*Keywords: inflation, monetary policy, economic situation*

Box.

## Euro area labour costs growing more slowly

### Measures of labour costs

Three ways of measuring labour costs for the economy as a whole are employed within the euro area: labour costs per employee, labour costs per hour worked and negotiated wages. Statistics for unit labour costs are also published, calculated from a combination of labour costs per employee and productivity. The various measures differ in terms of comprehensiveness, definition of labour costs and congruence between countries. Costs per employee is considered to be the most comprehensive and reliable approach, because it includes all labour costs paid by the employer (incl. social security contributions) and covers the whole economy. Moreover – contrary to the other measures mentioned above – it is a congruent measure in different countries. In this box we shall concentrate primarily on analysing labour costs per employee.

The other measures do also provide relevant information on the development of labour costs, however. The difference between costs per hour worked and costs per employee in principle reflects developments in hours worked. Meanwhile, the indicator of negotiated wages provides the most current measure of labour costs in the euro area.

### Slower growth in labour costs

In 2008, there was a clear acceleration in the pace of growth in labour costs in the euro area (Chart A). Most measures have since indicated the pace of increase has eased in the first half of 2009. Growth in labour costs per employee slowed more than costs per hour worked, which suggests that employees have on average been working shorter hours during the recession.

### Labour costs influence inflation, particularly in service sectors

Viewed sector by sector, there have been no significant differences in labour cost trends between sectors in recent years. The pace of growth in costs per

employee has been around 2–3% in both industry and service sectors throughout the present decade (Chart B).

In service sectors – where labour costs constitute a significant proportion of all costs – end-product inflation has traditionally followed rather closely the trend in labour costs. In industry, the link is looser. This has in part also been a reflection of productivity development, which has been much better in industry than in services.

In the past couple of years, labour costs have grown faster than productivity in both sectors. As a result, there has been a vigorous acceleration in unit labour costs (Chart A).

Chart A.

### Euro area inflation and measures of labour costs

% change on previous year



1. Negotiated wages
2. Labour costs per hour worked
3. Labour costs per employee
4. Unit labour costs
5. HICP

Sources: Eurostat and European Central Bank.

**Labour costs affect countries' cost competitiveness**

Of all the countries in the euro area, labour costs have on average grown faster in Spain in

recent years than in the other large member states (Chart C), and the difference has become larger still in the first half of 2009. Labour cost growth in

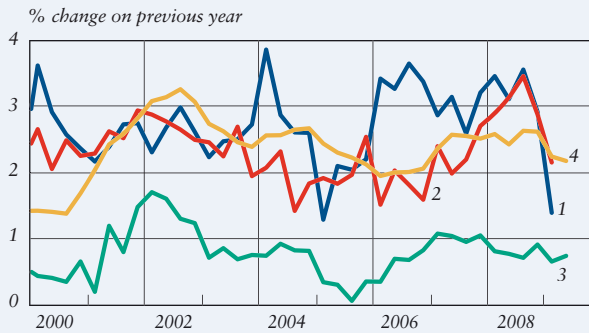
Spain has actually accelerated despite the bleak state of the country's real economy. As productivity growth has at the same time been very weak, Spain's competitiveness in foreign trade has suffered.

The other extreme is represented by Germany, where moderate pay deals have helped restore the country's competitiveness. The decline in per employee labour costs in Germany may also reflect the spread of part-time work, which has been encouraged by government support. In Italy, the trend in labour costs has at times fluctuated considerably, apparently as a reflection of the retroactive compiling of statistics on public sector pay deals.

In Finland, for its part, growth in labour costs has in recent years been relatively brisk compared with the euro area average. However, until 2007, this had only a negligible effect in weakening competitiveness in foreign trade, as Finland's productivity development was favourable, largely due to the electronics sector. Since 2007, however, wages have continued to rise briskly despite a decline in productivity, which has meant rapid growth in unit labour costs on the basis of previously agreed pay deals.

Chart B.

**Labour costs and inflation in euro area by sector**

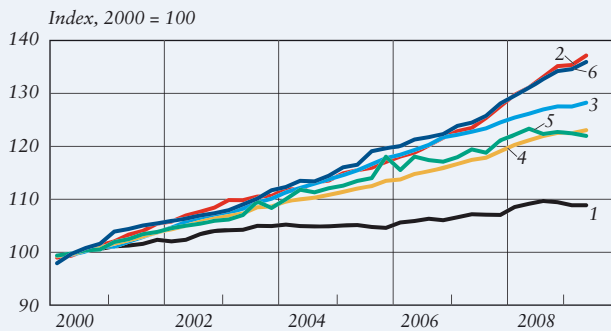


- 1. Labour costs per employee, industry
- 2. Labour costs per employee, services
- 3. HICP, non-energy industrial goods
- 4. HICP, services

Sources: European Central Bank and calculations by the Bank of Finland.

Chart C.

**Labour costs per employee in selected euro area countries**



- 1. Germany
- 2. Spain
- 3. France
- 4. Euro area
- 5. Italy
- 6. Finland

Source: European Central Bank.

# The Russian banking industry after the financial crisis – where to next?

9 December 2009

**The current financial crisis is unlikely to dramatically change the structural features of the Russian banking industry. The role of the state in the banking sector will increase rather than decrease after the crisis and the banking sector will continue to be very fragmented. There is a risk that if the large corporations have to turn to the domestic banking sector for finance instead of the international money market, they will crowd out small and medium-sized companies from access to bank finance. This would have a negative impact on economic growth in the long term.**

The Russian banking sector has grown extremely rapidly in recent years. In 2001, domestic lending was equal to 14% of GDP. By the end of 2008, the ratio had risen to 35%. Banking sector growth has been accompanied by longer loan periods, increased confidence in the rouble and a multiplication of borrowing opportunities for Russian households. To a large extent, this banking growth has been based on the broader economic growth fuelled by the rising price of oil, on foreign borrowing and on structural reforms in the banking sector.

During the impressive growth years of the 2000s, Russian banks have increasingly begun to resemble the banks everywhere in emerging economies. Russian banks, by and large, receive retail deposits, give

credit both to households and to the enterprise sector, engage in fairly standard operations on capital markets, issue bonds and, in some cases, even participate in international loan syndications. The Russian rouble has been freely convertible since 2006 and there are no restrictions on the capital account. Payments flow fairly reliably across Russia's eleven time zones, several foreign banks have found their way into the top 10 banks and, in the big cities, bank cards have even become common.

A deeper investigation of the Russian banking sector, however, reveals a number of structural features uncommon in other emerging economies in Europe. Some of these features help explain why the global financial crisis hit Russian economy so hard. These features may also help us to foresee how the Russian economy, and its banking industry in particular, will emerge from the crisis.

## On the structure of the Russian banking sector

### *Banking sector still relatively young and small*

The banking system in Russia started to develop in the course of the transition process at the end of the 1980s. Before that there were no private banks in Russia. A two-tier banking system was introduced in 1987 when the central bank and several state-



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owned specialized banks began operations. In subsequent years a large number of small banks were established. By the end of 1991 there were already over one thousand credit institutions registered in Russia, and the growth trend continued further thereafter. Since banks were allowed to deal in foreign exchange and could hold corresponding accounts with foreign banks, the activities they engaged in were often not proper banking activities. Consequently, despite its growth, the banking sector played only a limited role in financial intermediation, with domestic credit accounting for only about 10% of GDP.

The 1998 macroeconomic crisis, when the Russian government devalued the rouble and defaulted on its debt, led to insolvency at many

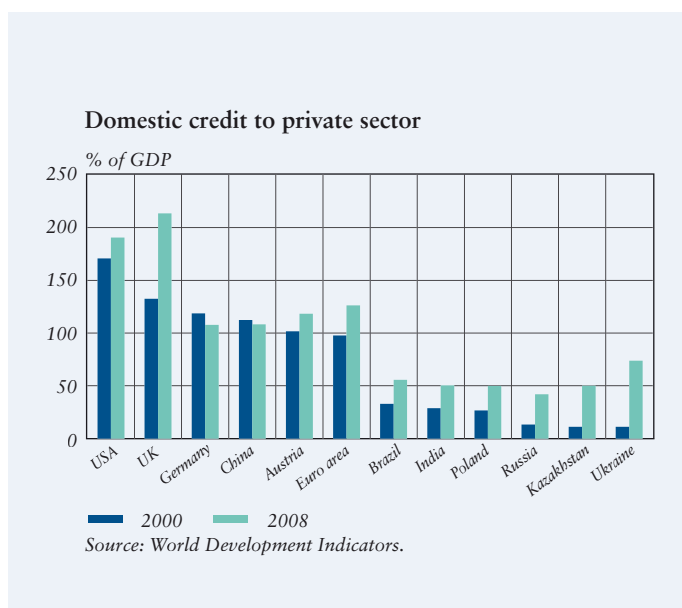
large banks and further reduced the trust in domestic banks. Thereafter, even during the years of economic growth, the banks found it hard to regain public trust.<sup>1</sup> In general, Russian households are not accustomed to using banking services and only about one third of them have a bank account. Nevertheless, the recovery from the 1998 crisis, a stable macroeconomic environment and important institutional changes, including introduction of the deposit insurance scheme in 2004, brought about rapid growth in the banking sector in the 2000s. The ratio of bank assets to GDP doubled between 2000 and 2008, to stand at 68% at the end of 2008. The same development pattern holds for bank credit to the private sector, which amounts to more than 40% of GDP. Despite this impressive growth, Russia still trails not only the developed economies, but also its counterparts in Central and Eastern Europe, in the level of financial intermediation (see Chart 1). The Russian banking sector remains small relative to the size of the economy. This indicates considerable scope for further financial deepening, which should also help to augment economic growth.

#### *Dual financial system*

Given the small size of the domestic banking sector, it is hardly surprising that Russian companies do not rely

<sup>1</sup> Altogether more than 2000 banks went into liquidation or otherwise vanished in 1991–2009.

Chart 1.





on bank loans to finance their investments. Only about 12% of fixed investments were financed using bank loans in the first half of 2009 (Rosstat, 2009), a figure largely unchanged from a year earlier. A Eurobarometer survey for the same period (Flash Eurobarometer 271, 2009) reports that, despite the financial turmoil, the role of banks is much more important in the European Union, with about a quarter of European companies reporting receipt of a bank loan.

Accessing external sources of finance has been particularly difficult for small and medium-sized enterprises. These companies, unlike the largest, globally operating Russian companies, do not have access to international markets. Moreover, the large Russian oil, gas and metal companies have financing needs that greatly exceed the capacity of the domestic financial system. These corporations are served by the global financial system. Russian banks' participation in the operations of these companies is minimal. This indicates that the duality used in describing the Russian economy in general is also present in the country's financial system. The second part of the dual system is the domestic economy, and it relies on the services provided by Russian banks. Up until the global financial crisis, the large corporations could rely on international markets for their investment finance and generally needed the domestic

banking system only for settling their payments. This may well be an additional explanation for the relatively small size of the domestic banking system.

### *Too many small banks*

Despite a slow declining trend in the number of banks in the country since the peak of 2,500 in 1994, there are still a very large number of banks registered in Russia. At the end of the third quarter of 2009, the Bank of Russia reported the number of banks to be 1,074. However, only the 50–70 biggest banks are important to the functioning of the sector as a whole. The remaining 1,000 are mostly small or very small. Of these 1,000 small banks, about half are based in Moscow, with the other half scattered all over the rest of the country. This group of small banks is believed to include a great number of institutions which are effectively pocket-banks of an enterprise group with little if any exposure to retail clients or the inter-bank markets. A few are merely foreign-exchange offices or accounting centres for their parent companies. Some of the small regional banks are, however, important from a regional perspective. Many remote regions of Russia are served only by the state-owned Sberbank savings bank and a handful of local, regional banks. Only the country's top 20 banks have any nationwide branch network to speak of.

The fragmentation of the sector causes difficulties in supervision and

*Only the 50–70 biggest banks in Russia are important to the banking sector.*

*The large number of banks makes supervision challenging.*

a lack of trust within the banking community. The large number of registered banks also makes supervision more challenging, especially with the limited resources available to the authorities. Despite many improvements in recent years, supervision is still considered to be oriented more to form over substance. Moreover, reporting is still based on the Russian accounting standards, which in many respects differ from the IFRS. The objective of implementing Basel II has been declared, but how this is to be achieved is rather unclear. The lack of trust in counterparties is especially clear on the interbank market, which was not functioning properly even before the current financial crisis.

The consolidation of the sector is still the subject of debate. A new law concerning a minimal capital requirement for banks has been approved and should enter into force on January 1, 2010. This requires banks to have capital of at least RUB 90 million (EUR 2 million) (RUB 180 million from 2012) and, unlike previous laws, this requirement is also meant to apply to existing banks. It is, however, unclear if the law will be implemented in full.

#### *State-controlled banks dominate*

The Russian banking sector is still predominantly state-controlled. This feature makes it different from the

emerging markets in Central and Eastern Europe and more similar to the situation in China. The large state-controlled banks have been significant players in the market throughout the post-Soviet period. The plans to partly privatize the country's top banks, Sberbank and VTB, ended in large IPOs in 2007 that resulted in 40% and 23% of private shareholdings in the two banks, respectively. No further privatization of the large state-owned banks is planned. The share of the three largest state-controlled banks (Sberbank, VTB Group and Rosselkhosbank) in total banking sector assets increased from 30% in 1998 to 35% in 2008. Including the major banks owned by Gazprom (Gazprombank) and by the City of Moscow Government (Bank Moskv), the share of the five major state-controlled banks grew from 30% to 45% in the ten years to 2008.

As in other countries, the current financial crisis has further increased the state's share of the sector. Vernikov (2009) estimates the share of state-controlled banks in total banking sector assets to be 57% in July 2009. The increase in state holdings is, however, not necessarily bad for efficiency in Russia. A recent study finds that Russian state-controlled banks do not seem to be less efficient than other domestic banks. Foreign banks are, however, the most efficient. (Karas et al., 2010.)

### *Foreign-owned banks play a minor role*

Foreign bank penetration in Russia has been low, albeit increasing. The share of foreign-owned banks in the total assets of the Russian banking sector increased from 8% in 2002 to almost 20% in 2008. There are no binding legal barriers to foreign bank entry, but the low penetration can partly be explained by memories of the 1998 crisis, when many foreign investors incurred huge losses. Also, the legal and regulatory environment in Russia is only slowly beginning to resemble that of many other emerging economies. The number of banks with foreign ownership has increased from 174 in 2000 to 228 at the end of June 2009. Three of the country's top 10 banks are foreign-owned (OECD, 2009).

Despite the high share of state-controlled banks in the banking sector, their market power declined between 2001 and 2007 (Fungacova, Solanko and Weill, 2009). This can be explained by the weakening of their competitive advantage in terms of security. These banks used to have an advantage in collecting deposits, as their ownership status prevented them going bankrupt. However, macroeconomic stability, which considerably reduced financial instability, combined with the deposit insurance scheme to reduce their competitive advantage. On the other hand, foreign-owned banks

have gained in market power. This might indicate that, after initially attracting customers with lower prices and better services, foreign-owned banks may have been gradually increasing their prices to become standard banks. Also, with the increasing revenue of Russian companies and households, some of the foreign-owned banks have gradually evolved towards an upmarket niche that allows them to charge higher prices.

### **How did the financial crisis arrive in the Russian banking system?**

The years of growth saw Russian banks become stronger, and on average they have been highly capitalised and exceedingly profitable. In addition, the Russian banking sector had very little involvement in the financial instruments that triggered the international financial crisis. Why, then, did the crisis hit the Russian banking sector so very hard?

There were two basic causes. The Russian economy in general, and the financial sector in particular, are dependent on two external factors: the price of oil and the international financial markets. Fragmentation, low trust, poor supervision and the relatively small share of foreign banks further aggravated the situation.

### *The collapse in the price of oil*

The crisis on the financial markets in autumn 2008 also led to a collapse in

the world market price of crude oil. In just a couple of months the price of oil fell by 60%, which amplified the decline in share prices in Russia. This, in turn, had two dramatic consequences for the banking industry. In the first place, a number of middle-sized Russian banks had linked a considerable proportion of their assets either directly or indirectly to the stock markets, and the collapse in share prices caused serious liquidity problems for these banks. This simply reinforced the lack of confidence in counterparties and the consequent hoarding of liquidity by financial institutions.

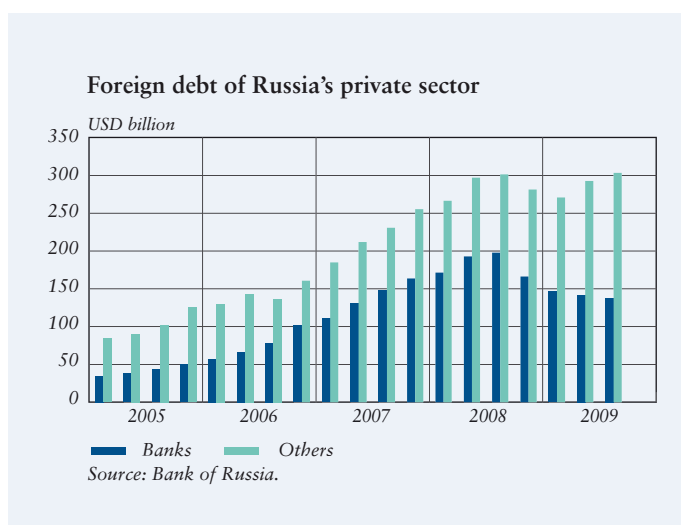
The other shock came from the fact that major corporations which had taken on large amounts of debt in recent years and used their own shares as collateral now found those shares losing a substantial part of their value, leading to margin calls.

In addition, the drop in the price of oil, and in consequence also the prices of Russia's other important commodities, meant a contraction in corporate cash flows. The interesting feature here is that the fall in prices should not have had a particularly dramatic impact on corporate earnings if the marginal tax rate on oil exports was truly 90%, as argued by the major oil companies.

#### *Dependence on foreign money*

During the 2000s, a constantly growing share of banking sector growth has been based on borrowing from abroad. Although the stock of foreign borrowing is not particularly large in international comparison, it has grown very rapidly and the loans are relatively short-term (see Chart 2). Only a third (37%) of the USD 140 billion foreign debt of the sector matures after mid-2011.<sup>2</sup> The interbank market, in particular, is highly dependent on foreign money. The Bank of Russia reports that during 2008 some 60% of the total volume of interbank lending involved a foreign counterparty. Furthermore, foreign banks fully dominate interbank lending in foreign currency, with a share of 90% of total foreign currency lending.<sup>3</sup> This means the banking system is very open and, as became clear in autumn 2008,

Chart 2.



<sup>2</sup> [http://www.cbr.ru/statistics/credit\\_statistics/print.asp?file=schedule\\_debt.htm](http://www.cbr.ru/statistics/credit_statistics/print.asp?file=schedule_debt.htm).

<sup>3</sup> [http://www.cbr.ru/analytics/fin\\_r/fin\\_mark\\_01-2009.pdf](http://www.cbr.ru/analytics/fin_r/fin_mark_01-2009.pdf).

dependent on the risk-taking propensity of foreign financial institutions.

The growing foreign borrowing was made particularly attractive by the exchange rate policy pursued by the Bank of Russia. In order to secure macroeconomic stability and domestic price-competitiveness, the nominal value of the rouble was held more or less stable until December 2008, despite pressures to let it rise. As domestic interest rates remained well above the international level, foreign borrowing was very cheap. In autumn 2008 the supply of foreign refinancing dried up and interbank rouble interest rates doubled in a matter of months. The collapse in the world market price of oil together with the strengthening dollar (due to the ‘flight to security’) destroyed market confidence in the rouble.

### *Exchange rate pressures*

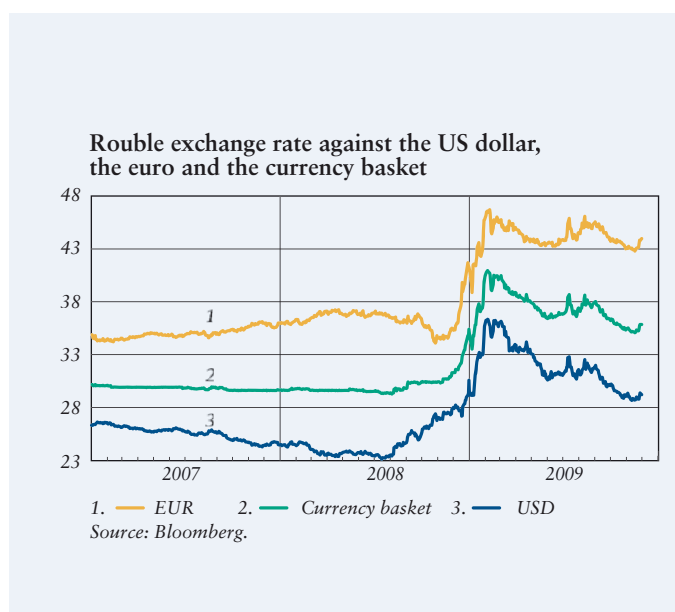
Concern over the future rate of exchange finally paralysed the Russian financial markets. The banks did not want to lend in roubles, while borrowers no longer dared to borrow in foreign currency. A substantial share of the banks’ rouble liquidity was exchanged for foreign currency. Presumably, a substantial proportion of the increased domestic liquidity offered by the Bank of Russia also flowed into dollars, further fuelling the pressures for devaluation of the rouble.

In addition, growing uncertainty, increasing payment arrears and the

conversion of savings into dollars reduced deposit growth to zero. At the end of 2008, the broad monetary aggregate (M2) also began to contract. The decline in the stock of rouble-denominated deposits at the end of the year actually revealed more about lack of confidence in the exchange rate than in the deposit banks. Russia drifted into a step-by-step devaluation, as a result of which the currency depreciated approximately 30% against the dollar-euro basket between November 2008 and February 2009 (see Chart 3).

However, the step-by-step nature of the devaluation allowed all economic agents to prepare for the depreciation in the exchange rate. Of the banks’ corporate loan stock, on average around a quarter of loans

*Chart 3.*



*The massive support measures taken by the government and the central bank prevented the collapse of the financial system.*

were denominated in foreign currency at the end of 2008, although the variations between banks were considerable. For the thirty largest banks, almost 40% of corporate loans were in foreign currency at the beginning of 2009.

The rapid and massive support measures taken by both the government and the central bank at the end of 2008 prevented the collapse of the financial system. The measures taken by the Bank of Russia proved sufficient and there have been no significant banking bankruptcies. Some smaller institutions were closed and the authorities even took over several banks in order to prevent possible bank runs. The deposit guarantee system has worked without problems. Taken together, the measures promised to secure the operations of the banking system amount to approximately 10% of GDP.<sup>4</sup> The end of January saw the establishment of a new, clearly credible exchange rate.

#### **When will lending revive?**

In recent months, since the return of oil to USD 60–80 a barrel, the rouble has rather tended to strengthen slightly. Fuelled by ample liquidity in the domestic banking system and foreign capital inflows, the Russian stock exchange indices have more than doubled from their lows at the end of February 2008. Moreover, the market for domestic corporate bonds

has been attracting increasing interest. The monthly volumes of bond emissions have been larger than ever, with RZD (the state railroad monopoly) and Transneft (the state oil pipeline monopoly) leading the way. But bank lending is still declining in real terms.

#### ***Loan stock quality in decline***

With the most acute phase of the financial crisis now over, the banking system is still hampered by a third source of uncertainty in addition to the uncertainty over the price of oil and the tightness of the international financial markets: namely the quality of the loan stock. Economic collapse and declining real incomes have been reflected in a growth in problem loans and loan rescheduling. The level of non-performing loans recorded by the Bank of Russia is still relatively low at 6%, but there is considerable variation between banks. It is also important to keep in mind that the definition of non-performing loan based on Russian accounting standards only includes the overdue payments, not the whole principal. Moreover, according to international credit rating agencies, the share of non-performing loans has already risen substantially, being at present over 10% of the banks' loan stock. Some Russian observers put the current figure at 20–30% of the total loan stock. These are levels sometimes associated with a full-scale banking crisis.

<sup>4</sup> For an account of the various support measures, see Fidrmuc and Süß (2009).

### *Recapitalization is the first priority*

So far, solvency has not been a problem at the level of the banking system as a whole. On average, the ratio of bank capital to risk-weighted assets has slightly increased during 2009, equalling 20% in September 2009, well above the regulatory minimum of 10%.<sup>5</sup> Many of the smaller banks (which typically have high capitalization ratios) may, in fact, stomach a fairly large share of their possible loan losses by eating their own capital and retained earnings. Nevertheless, on average, the banking sector will need recapitalization before lending can revive.

In this sense, the extensive state-ownership may be a temporary blessing for the Russian economy. Russia's six largest commercial banks, accounting for around 50% of the entire sector balance sheet, are all either directly or indirectly state-owned. These are the systemic banks, vitally important for the functioning of payment systems and interbank markets as well as central in funding the large Russian corporations. During the crisis, the government has resolutely sought to use these banks to carry out its anti-crisis measures and to maintain at least some degree of lending activity in the economy.

The government has made clear it will recapitalize the banks in its ownership if needed. The state development bank, VEB, has been granted

<sup>5</sup> 11% for banks with capital lower than EUR 5 million.

direct budget funding to be invested in commercial banks in the form of 10-year subordinated loans. At the time of writing, almost all large private banks had already received VEB funding to bolster their capital adequacy. Uncertainties over economic growth and, hence, over the creditworthiness of potential customers have not eased. Lending, therefore, has yet to resume.

### *Future growth depends on increasing domestic funding*

Since the banks currently have ample liquidity and considerable capital support from the state, lending activities can revive as soon as the uncertainties in the economic environment begin to diminish. In the medium term, however, growth in bank lending may be hampered by very slow growth on the other side of banks' balance sheets. The rapid growth in bank lending experienced in 2001–2007 was based predominantly on foreign funding. Acquiring wholesale funding now on the international markets will be both more expensive and more difficult than during the last five years. Therefore, future banking sector growth will have to rely on increasing domestic funding.

Russian households have traditionally not been eager to place their money in bank accounts. Only a third of them even have a bank account, and negative real interest rates have understandably discouraged



long-term deposits. The experience of the post-Soviet period with high inflation and low trust in the banking system has depressed savings in Russia. Therefore, it is no surprise that household deposits have not been the single most important funding source for the banking sector. With declining real incomes, this will be hard to change. Due to these funding constraints, we cannot expect rapid growth in the Russian banking sector in the immediate years ahead.

#### *State-controlled banking system is here to stay*

The banks that have increased their lending amid the crisis are the state-controlled banks. On average, the stock of corporate loans has grown by 2% in nominal terms throughout the first half of 2009 – including rescheduling and bad loans. Thus, the corporate loan stock has declined 6% in real terms this year. The average figure masks the fact that corporate lending has increased primarily in just a couple of the largest state-controlled banks. For the rest of the banking sector, the loan stock has declined by 15%, according to the Russian magazine *Bankir.ru*. It is, therefore, clear that, overall, the state-controlled banks are increasing their share of the loan markets.

If minimal capital requirements are also applied to existing banks, there may be demands for state-controlled banks or other state-controlled

corporations to take over smaller, weak institutions. These possible takeovers and mergers (even though some might just be mergers of small banks) would undoubtedly further increase the share of state control in the Russian banking sector.

The increasing role of the state in the banking industry during the crisis is by no means specific to Russia. Almost all countries hit by the global financial crisis have been forced to take measures that increase the role of the public sector in banking. But contrary to most Western economies, there are not even preliminary talks about an exit strategy. The state is there to stay. And only the future will show us how the co-existence of state and private banks will develop in Russia.

#### **Will the dual financial system survive?**

The current financial crisis is unlikely to dramatically change the structural features of the Russian banking industry. The ownership structure will continue to differ from most European countries. As stressed above, the state will increase rather than decrease its share. The major foreign banks will with all likelihood stay in the market, but they will not become the major players in retail banking. The sector will continue to be highly fragmented and prone to rumours. Even though some smaller banks are expected to vanish, Russia will still have a high number of tiny

banks that are difficult to control and regulate. But there are substantial uncertainties over the viability of the international portion of Russia's dual financial system.

Past growth in the banking sector was accompanied by even faster growth in foreign borrowing by the large Russian corporate clients. Russian companies became especially large players in international markets for syndicated loans, with the flow of syndicated loans to Russian borrowers in 2006–2007 being larger than to eg Italian or Spanish borrowers. Therefore, both the domestic and the international side of Russia's dual financial system grew rapidly. Now both sides are struggling.

If the large Russian corporations, too, find themselves unable to draw on the international money markets for a prolonged period, they will have to turn to the domestic banking sector for finance. Given that these corporations are large by any measure, this would imply a further scaling down of many investment plans in Russia. The return of the large corporations to the domestic markets could crowd out the small and medium-sized domestic companies from access to bank finance in Russia. This might seriously hamper economic growth in the long term.

*Keywords: banking sector, financial system, Russia*

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# Banking competition in the euro area

21 December 2009



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**Empirical evidence from the euro area indicates that retail interest rates tend to adjust slowly and incompletely to changes in market interest rates. Responses also seem to be asymmetric: deposit rates display rigidity when market rates rise, but flexibility when they fall. In addition, the available evidence for the euro area banking sector suggests there are significant differences across countries in the way banks adjust their interest rates in response to changes in corresponding market rates. The sensitivity of deposit interest rates with respect to changes in market rates can be used as an indicator for the level of competition in banking.**

A competitive banking sector is a highly important element of the financial system in general, and especially in the euro area, where the financial structure is to a large extent bank-centred. A more competitive banking sector is expected to foster financial services efficiency, product quality and innovation. It should thus drive down bank loan rates and offer fair compensation to depositors, thereby adding to the welfare of households and businesses.

Monetary policy transmission, too, depends crucially on the intensity of competition in the banking sector. Less competition might indicate sluggish and rigid transmission of policy rate changes to retail interest rates, thereby potentially lowering the effectiveness of monetary policy. The

recent financial crisis has highlighted the need to analyse competition in banking. The trade-off between competition and financial stability is one particularly relevant issue currently under discussion.

## Traditional measures of banking competition

Measuring banking competition has, however, turned out to be a complex task. In the last two decades, the banking industry has changed profoundly. Forces such as globalization, technological change, deregulation and European integration have fundamentally altered the market structure and substance of the European banking industry. It is, therefore, not surprising that the evidence on the level of and trends in competition in the European banking sector is rather mixed. The difficulties are especially evident if the focus is on the development in competition over time or the differences in competition between countries. For example, some studies find that competition in banking has tightened since the beginning of monetary union<sup>1</sup>, while some show no significant changes and some actually indicate an easing of competition<sup>2</sup>.

Banking competition has been modelled in a number of ways.<sup>3</sup> A common indicator for the level of

<sup>1</sup> Van Leuvensteijn et al. (2008).

<sup>2</sup> Sander and Kleimeier (2004).

<sup>3</sup> For a recent survey of banking competition, see eg Carbo et al. (2009).

competition in the banking sector is the degree of concentration in the markets in which banks operate, and the common argument is that more concentrated markets are less competitive.<sup>4</sup> From a theoretical point of view, the relationship between competition and concentration is, however, ambiguous. While the intensity of competition should generally increase with the suppliers in a market, concentrated markets may well behave like competitive markets if the market participants face the permanent threat of new competitors, domestic or foreign, entering the market, ie if they operate in a contestable market. Higher concentration in the banking sector may also result from more-efficient banks growing faster than, or taking over, less-efficient banks. Thus, more-concentrated markets could potentially be characterized by higher efficiency and higher competition as well. Furthermore, the presence of a large number of small, locally active financial institutions in a market may not indicate stronger competition, but rather the existence of relationship banking. This would imply a low willingness or low ability of customers to switch to other banks, and thus a low elasticity of loan demand/deposit supply.

<sup>4</sup> Concentration is usually measured with concentration ratios such as the market share of the 5 largest credit institutions or with the Herfindal index, which is computed from the sum of the squares of the market shares of all banks. The ECB report on EU banking structures, for example, monitors these indicators.

Measurement of banking competition can also be approached by emphasizing the analysis of the competitive conduct of banks. Models measuring competition involve the estimation of behavioural equations that specify how banks set their prices and quantities. A behavioural relationship such as ‘marginal revenue equals marginal cost’ cannot be estimated directly, because data on marginal revenue and marginal cost are unobservable. However, such a relationship can be estimated indirectly. The Lerner index is a typical measure based on a competitive conduct model. It shows the extent to which a monopolist’s market power allows it to fix a price above marginal cost, expressed as proportional to the price. The indicator is assigned the value zero if there is perfect competition. The higher the value of the indicator, the less competition there is. Another commonly used measure is the Panzar-Rosse H-statistic, defined as the sum of elasticities of revenues with respect to input prices. If a market is perfectly competitive, the sum of elasticities is 1. If the value of H-statistics is less than 1, this implies imperfect competition.

### Measuring competition using banks’ deposit pricing

Another method to approach the measurement of banking competition is to test how much market power banks have in setting their deposit

rates.<sup>5</sup> The pricing of retail deposits, one of the core businesses of banking, has a direct effect on profitability. Compared with pricing loans, the competitive effect should be more pronounced for deposits, as they are less affected by risk factors and other informational imperfections such as moral hazard and adverse selection problems.

The spread between the retail deposit rate and the market interest rate is the opportunity cost of deposits to depositors and the profitability of deposits to the bank. Banks' retail rates should thus be tied to the market rate that most appropriately reflects their maturity-matching opportunity costs for accepting a deposit. If a bank's retail deposit market were perfectly competitive, the retail rate would equal the competitive rate (market rate + adjustment costs). A less than perfectly elastic demand for deposits implies a deposit rate that is below the competitive rate. If banks exercise some market power, eg monopolistic competition, and if there are costs associated with adjusting retail rates, the decision of a bank to adjust its deposit rate in response to a change in the corresponding market rate depends positively on the interest elasticity of the deposit supply curve faced by the individual bank. This elasticity is, in turn, a positive function of the degree of competition in the deposit market.

<sup>5</sup> This approach has been advocated by eg Hutchison and Pennachi (1996).

This sensitivity of deposit rates to changes in market rates can be used as an indicator for the level of competition. The less flexible the deposit rates, the more market power banks exercise, and the indicator is assigned a low value. If the market were perfectly competitive, adjustment should be complete and the value of the indicator would narrow to 1. This type of indicator allows us to compare the competitive situation both across euro area countries and through time.

### **Constructing an indicator measuring competition using demand deposit interest rates**

To be able to construct the above-mentioned indicator and perform comparisons across countries there are some necessary assumptions the underlying circumstances must fulfil. Firstly, market rates should represent the cost of banks' refinancing, and, in competitive markets, changes in these costs should be reflected in banks' deposit pricing. Within the euro area, the common currency and single monetary policy guarantee that banks face a common wholesale interest rate, which can be assumed to represent the opportunity cost of refinancing. Secondly, to facilitate comparisons there must be a sufficiently similar regulatory and operational framework for banking. In Europe, there have been noteworthy differences in the regulatory framework regarding banking deposits, eg taxation practices, but the significance of these

regulatory measures has been declining over time. During the last ten years, banks have already been facing a fairly harmonised supervisory and regulatory environment regarding the supply of financial services.

Constructing the indicator, we have to assume the deposit interest rates stand for sufficiently harmonised banking products (eg accounts) in order for them to be comparable across countries. The content of these accounts should be assumed to include the same kinds of services across all the countries. In the euro area, the most homogeneous deposit product seems to be household demand deposit accounts.<sup>6</sup> These generally include the possibility to use a payment card, electronic access to the account and the opportunity to pay bills from the account. Thus, even if banks offer highly differentiated products to their customers, the terms and services of demand deposit accounts seem to be highly homogeneous across the euro area. The most relevant feature – to withdraw deposits without any termination clause – is, by definition, a common feature for the demand deposits category. Theoretically, concentrating

<sup>6</sup> In the harmonised ESCB interest-rate data collection for monetary and financial institutions, demand deposits are classified as overnight deposits. Overnight deposits include all transaction account deposits, overnight debt instruments and overnight money market deposits without any agreed fixed terms to maturity. Overnight deposits cover around one third of household deposits. The other main categories are deposits redeemable at notice and deposits with an agreed fixed term to maturity. Harmonised interest-rate data collection began in the euro area in January 2003.

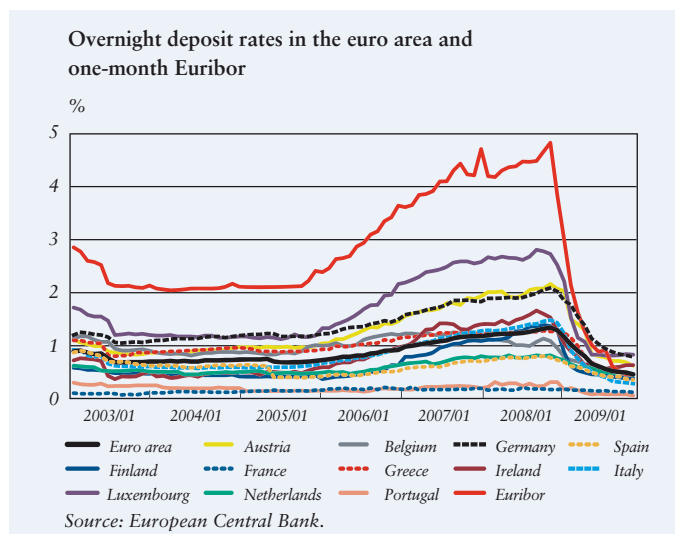
only on demand deposit pricing confines the bank's optimization problem, which varies depending on the maturity of its liabilities.

Differences in interest rate levels on demand deposits across euro countries (Chart 1) are still likely to reflect some product heterogeneity and differences in market practices and fiscal frameworks. This remains the case, even if it seems to be a common practice all over the euro area that banks remunerate demand deposits at low interest rates and in return charge low fees for transaction services.<sup>7,8</sup> However, as long as the relative differences between deposit

<sup>7</sup> Sometimes these average spreads are used as a measure for competition, but for the reasons mentioned they may be misleading. A more detailed analysis of differences in MFI interest rates across euro area countries can be found in the ECB report published in 2006.

<sup>8</sup> France and Portugal have different pricing principles for overnight interest rates than other euro countries.

Chart 1.



rate levels have remained fairly stable over the years, it should be possible to compare deposit rate changes with respect to market changes across countries. This also holds true for the problematic issue of cross-substitution between different bank products – a typical feature in banking. If the bounding terms remain rather constant, they only affect the level, not the changes in interest rates and do not hamper comparisons across countries.

In the recent empirical study covering years 2003–2009, developments in overnight interest rates were linked to the one-month Euribor, which was used as a competitive market rate.<sup>9</sup> This market rate was chosen because it correlates closely with overnight deposit rates, indicating the role of the corresponding competitive market rate. Overnight deposit rates were well below market rates until 2009. Spreads began to fall following the steep decline in Euribor rates from the beginning of 2009. On average, the spread between the one-month Euribor and overnight deposit rates in the euro area was slightly less than 190 bps during the period 2003–09. Also, the sluggishness of deposit rates is clearly observable. The standard deviation of overnight deposit rates is only one fifth of the standard deviation in the one-month Euribor. Deposit rate adjustments also

tend to be asymmetric,<sup>10</sup> being sluggish when market rates are rising and spreads are wide and more flexible when market rates are falling and spreads are narrow.

### Degree of competition within the euro area

The highest response in overnight deposit rates to changes in the market rate was found in Luxembourg, followed by Ireland, which is well in line with the common opinion that the banking markets in these countries are highly competitive. In these two countries, the overnight deposit rate response to a 100 basis points change in the market rate was around 20–25 basis points. The most rigid deposit rates were found in Spain and the Netherlands, where the responses were only around 5 bps (Chart 2).

Assuming only a symmetric response might, however, be misleading, as the response could be simply due to banks' response to declining market rates. A large elasticity for the market rate would not in that case indicate a competitive banking market, but less competition and more market power.

The asymmetric behaviour of deposit interest rates can be taken into account by analysing the different responses of deposit rates to upwards and downwards changes in market

<sup>9</sup> The results presented here are based on research published in the Bank of Finland Research Discussion Papers series (Vajanne, 2009).

<sup>10</sup> Asymmetric price transmission is also found to be common in the pricing of agricultural products and gasoline products. For a comprehensive survey, see von Cramon-Taubadel and Meyer (2004).



rates. Taking this possibility for asymmetric responses into account, most competitive banking in the overnight household deposit markets still seems to be in Luxembourg and Ireland (Chart 3). In addition, deposit rates in Italy seem to respond significantly to increasing interest rates. The most sluggish reactions appear to be in Austria, Germany, Spain and Finland, where deposit interest rates were very sluggish in responding to rising market rates.

Having such an asymmetry in deposit pricing raises an interesting question about the market power banks have when setting their deposit interest rates. Overnight interest rates followed the rise in market rates only slightly or not at all, but declining market rates were undoubtedly followed. Banks' behaviour seems to be surprisingly systematic in all the countries covered.

### Market power remains a concern in modern banking

The empirical results indicate that, in line with the theoretical literature, banks use their pricing power in the markets for short-term deposits. Banks' deposit rates respond on average sluggishly to changes in market rates, and this behavioural trend is reinforced when asymmetric pricing is taken into account. Overnight deposit rates seem to be much more flexible when monetary policy is eased or kept stable compared with a situation of rising policy rates. Banks pass only a limited

proportion of interest rate rises on into overnight deposit rates. Even if the banks' behaviour was observed to have systematically similar features in all the countries covered, there are nevertheless noteworthy differences across euro area member countries.

Chart 2.

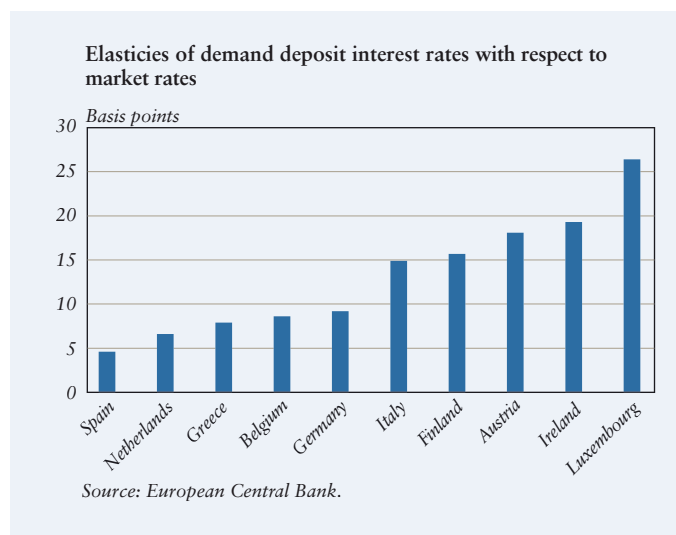
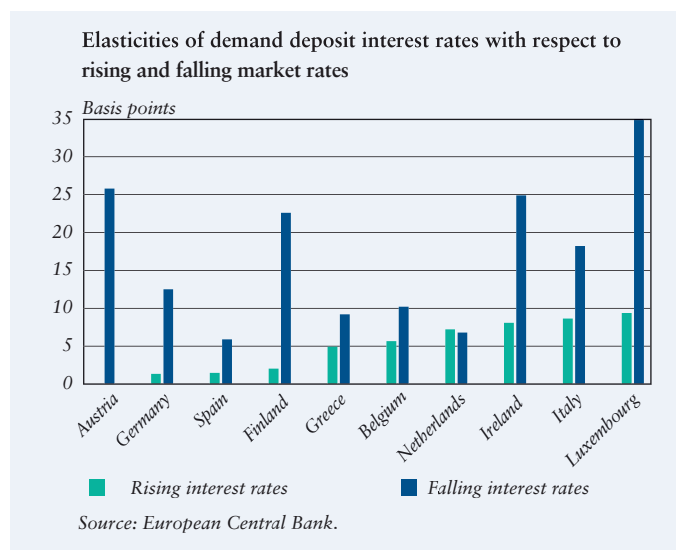


Chart 3.



There are, however, many interesting questions not addressed in the results presented here. In addition to competitive market rates, banks' deposit pricing also depends on the costs involved in switching banking accounts, on the terms of bundling of banking services and on the competitive nature of the banking markets. Controlling for the impacts of these factors could improve the results. An analysis of the pricing of other deposit accounts would, of course, yield important additional information from the competition standpoint. It is, therefore, not possible to draw more general conclusions about the degree of competition in national banking markets based on the present findings.

In terms of policy implications, the relationship between banking competition and financial stability is highly relevant. At the retail level, despite modern banking practices, market power remains a concern. Price rigidities are clearly observable in deposit markets, and competition policy has an active role to play. An interesting test of flexibility in deposit interest rates lies ahead, when the recovery from the current crisis begins and market rates rise towards a more normal level.

*Keywords: banking competition in the euro area, deposit interest rates, market rates*

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# Pressure for changes in capital adequacy regulation of banks

18 December 2009

The financial crisis that began in 2007 and expanded in 2008 has underscored the importance of banks' capital adequacy. Although the new capital adequacy framework for banks, Basel II, which was finalised in the years preceding the crisis, can hardly be blamed for the crisis, the crisis has made clear the need for certain improvements in the new framework. Minimum capital requirements will most likely rise, and there is a need to reduce the contribution of capital requirements to procyclicality in the financial system. However, the view has also been expressed that capital requirements may not be the most efficient way of ensuring the safety of banks. These proposals focus on the idea that there should be arrangements in place that secure sufficient supply of capital to banks when it is most needed, ie when a crisis hits. This article reviews the recent discussion on capital requirements in the aftermath of the crisis.

The first international accord aimed at harmonising the minimum capital requirements for banks in different countries, now referred to as Basel I, was agreed in 1988. Basel I can be viewed as having been successful in putting an end to the 'race to the bottom', a practice whereby internationally active banks could have a competitive advantage from residing in a jurisdiction that imposed relatively low capital requirements.

Basel I requires banks to hold capital equal to at least 8% of their risk-weighted assets. In Basel I, the risk weight on corporate loans, for instance, is 100%, which implies that banks must, at a minimum, hold capital equal to precisely 8% of their corporate credit assets. There are corresponding individualised risk weights in Basel I on broad categories of credit risk, such as retail loans. However, it quite soon became apparent that such broad measures of risk were insufficient to measure banks' true risks. Such crude risk measures also appeared to be lagging behind the development of risk measurement techniques within the leading banks.

## Basel II capital requirements

### *Overview of the Basel II framework*

The first major change to the Basel I framework was an amendment in 1996 that improved the calculation of capital requirements relating to banks' market risks in regard to their trading books. The amendment permitted the use of banks' own value-at-risk models to measure market risks when setting capital requirements.

The use of banks' own models represented an important philosophical change and paved the way for the major revision of the capital framework in 2004, Basel II. Basel II is mainly about reforming the risk weights on banks' credit risk assets, although operational risks were also



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added as an entirely new risk category against which capital requirements are set. Although Basel II does not allow the use of banks' own credit value-at-risk models in determining capital requirements,<sup>1</sup> the idea was adopted that banks could use their own internal customer ratings and themselves estimate the average probabilities of a customer defaulting in each rating class. Under Basel II, these input values determined by the bank are fed along with some other risk parameters through a special mathematical formula provided in the Basel II framework, which then ultimately determines the capital requirements against the bank's credit assets.

In addition to the reform of minimum capital requirements specifically on credit assets, the Basel II framework also contains two other pillars. The second pillar gives structure to the supervisor's holistic review process of a bank's overall capital adequacy and capitalisation planning. If severe shortcomings are identified, the second pillar enables the supervisor to require additional capital. The third pillar aims to facilitate and strengthen the functioning of market discipline via increased reporting requirements.

The bottom line of the Basel II framework is that it aims to determine banks' capital requirements on the basis of bank-specific risks and

therefore makes use of similar risk-measurement techniques to those the leading banks themselves have been developing and using. Basel II does not aim to explicitly measure systemic risks and how individual banks contribute to them. The implicit idea behind Basel II is that measuring the risks of large banking institutions on a stand-alone basis, and requiring capital accordingly, is also the best way to contain systemic risk. The financial crisis of 2007–2008 has challenged this view. At the minimum, the crisis has revealed the need to somehow deal with banks' liquidity risks, which are not currently covered by Basel II's minimum capital requirements.

The EU has implemented Basel II in the form of a Capital Requirements Directive (CRD) that has been in force since 2007. In the United States, the process of implementing Basel II is still in progress.

#### *Did capital adequacy requirements contribute to the crisis?*

Some commentators have argued that the current crisis has partly been driven by, or may at least have been exacerbated by, the new Basel II framework. However, this critique may not be entirely fair. An opposite view may have some merit, in that an earlier replacement of Basel I with Basel II could have alleviated some of the developments that contributed to the crisis. Indeed, as Basel II came into force in Europe only in 2007 and is still not in use in the United States,

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<sup>1</sup> This was considered by the Basel Committee but rejected because it was felt that credit value-at-risk models were not yet in a sufficiently mature state of development.

blaming Basel II for the crisis seems misplaced.

Cannata and Quagliariello (2009) consider the arguments that Basel II contributed to the crisis. These include i) the procyclicality of capital requirements, ii) rating methodologies and rating-related conflicts of interest in determining capital requirements, and iii) capital arbitrage in the form of utilising shortcomings in the regulatory framework in order to minimise one's capital requirements.<sup>2</sup> They end up concluding that, in most cases, the accusations that Basel II would have contributed to the crisis are too stark. Nonetheless, it is quite clear that the crisis has revealed shortcomings in Basel II that will have to be dealt with in order to reduce the likelihood and severity of future crises. Such corrective action is already on the way and is discussed in more detail below.

## Lessons from the crisis for capital adequacy regulation of banks

### *Quantity and quality of capital was too low*

When considering the adequacy of capital, we must distinguish between the two key roles of bank capital (see eg Financial Services Authority, 2009). Firstly, in the event of a bank failure, the role of capital is to protect the claims of creditors, depositors and taxpayers (a 'gone concern' approach).

<sup>2</sup> For a more complete list and discussion see Cannata and Quagliariello (2009).

Secondly, their capital structure and capital adequacy affect banks' behaviour and hence the economy as a whole (a 'going concern' approach). In particular, sudden, large and unexpected credit and valuation losses may force undercapitalised banks to constrain lending to households and businesses. Weakly capitalised and highly leveraged banks may also take excessive risks in boom periods preceding financial crises, as stockholders in levered firms may gain when the business risk increases.

It is clear that prior to the current crisis banks' capital levels were too low, at least in the going concern sense. Many banks and other financial institutions increased their risk-taking and observable and hidden leverage and decreased the size of their capital buffers. Once the risks materialised, central banks and treasuries had to provide enormous public support to prevent the financial system from collapsing and to maintain bank lending to the real economy. Banks in the United States, United Kingdom, euro area, Scandinavia and Switzerland had raised new capital worth close to USD 1,000 billion to end-2009 Q2, much of which from public sources (IMF, 2009).

In addition to the quantity of bank capital, the composition of bank capital also matters. In the years before the crisis – in response to strong investor demand for high-yield securities – banks increased their issuance of hybrid capital instruments (hybrids) that contain features of

*Sudden, large and unexpected credit and valuation losses may force undercapitalised banks to constrain lending to households and businesses.*

*Banks' highest quality capital should be their 'last line of defence'.*

both debt and equity. Under certain criteria, these hybrids could be included in the highest quality class of the banks' own capital, original own funds (Tier 1 capital).

Banks' highest quality capital should be their 'last line of defence' and include instruments that are permanently available to fully absorb their losses and protect their creditors and depositors. However, the eligibility criteria and limits on the use of hybrids were not uniform across countries. As a consequence, investors increasingly called the quality, consistency and transparency of banks' current Tier 1 capital into question and began to use other definitions of capital, such as core capital, consisting mainly of common equity. To reduce uncertainty, provide a level playing field and limit regulatory arbitrage, the definitions of different types of own funds in the capital requirements must be clarified and made as uniform as possible across jurisdictions.

#### *Many major risks were insufficiently covered*

Capital requirements provide the wrong incentives to banks if the amounts of capital required against holding certain types of assets or providing certain commitments are not commensurate to their riskiness. For example, banks have been required to hold very low levels of capital against their trading book assets, which are bought and held mainly for the purpose of selling

them in the near term. The original reason for their light capital requirements was the presumption that trading books mainly included liquid assets that can be rapidly sold, eg government bonds. However, over the years prior to the crisis and partly as a result of regulatory arbitrage, the composition of banks' trading books changed as banks began to hold less liquid and more risky assets. The inadequate capital requirements against trading book assets became evident, especially in the early stages of the crisis, when most bank losses were related to precisely those assets.

The diverging growth rates of banks' risk-weighted assets – which determine capital requirements in the Basel II framework and thus reflect the regulatory assessment of the riskiness of assets – and their total assets suggest that the risk coverage of the capital requirements has, in general, been insufficient (Chart 1).

As Chart 1 shows, the total assets of the 10 largest global banks more than doubled between 2002 and 2007 Q2. Risk-weighted assets, in contrast, grew only moderately. Thus, the chart suggests that the sample banks' assets became safer towards 2007 Q2. In retrospect, the evolution of risk was precisely the opposite.

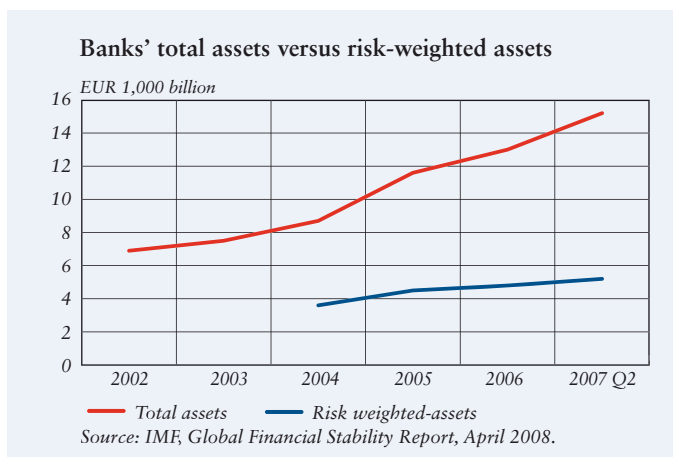
There are clearly many reasons why the risk-based capital requirements failed to capture the increase in banks' risks. These include a large increase in banks' lightly capitalised trading assets, credit risk transfer and

insufficient focus of capital requirements on systemic risks.

The capital requirements also failed to capture many off-balance-sheet risks typical to an originate-to-distribute model of banking. Ideally, under an originate-to-distribute model, securitisation of loans allows banks to distribute risks to sophisticated end-investors outside the banking system. This reduces the risk for the banking system as a whole. However, much of the risk of securitisation remained on banks' balance sheets. In actual fact, the main motivation for much of the securitisation seems to have been the avoidance of capital requirements (see Acharya and Schnabl, 2009).

The capital requirements for securitised instruments, and especially for the complex resecuritised instruments that banks held on their balance sheets, were, in retrospect, very low. Moreover, banks transferred a large amount of securitised instruments to ostensibly legally separate shell companies (conduits), which financed themselves by issuing short-term asset-backed commercial paper (ABCP) and to which the banks provided back-up credit lines. The required capital against this liquidity enhancement was also low. The failure of conduits and other corresponding off-balance-sheet vehicles suggests that radical changes are needed in the regulation and supervision of securitisation, resecuritisations and banks' off-balance risk-taking.

Chart 1.



### *Procyclicality of capital requirements*

Well before the recent crisis many academics were concerned about the increasing procyclicality of the banking sector that could result from the new Basel II rules. The crisis has now brought this concern onto the policy agenda.

In principle, all kinds of capital requirements are potentially procyclical. The mechanism works as follows. As the economy falls into recession, banks' regulatory capital requirements may become restrictive as increasing credit losses shrink their capital base. As new external capital is typically hard to come by in a recession, at least at short notice, the banks may have to adjust to the situation by reducing lending. This may further fuel the economic downturn. Risk-sensitive capital requirements such as Basel II reinforce this effect, as banks' asset risks tend to rise in a recession, which



leads to increasing capital requirements. This concern is certainly justified. Nonetheless, so far it has been difficult to empirically prove the Basel II rules have actually exacerbated the credit crunch during the recent crisis. It is particularly hard to disentangle credit demand effects from credit supply effects during the crisis.

In order to reduce the potential procyclicality of Basel II, regulators are considering whether to make average capital requirements and banks' actual capital levels more consistent with the business cycle; ie to raise them in booms and lower them in busts (see also eg Repullo and Suarez, 2008). Nonetheless, when considering such improvements to Basel II, regulators should not forget the merits of risk-sensitive capital requirements. Jokivuolle, Kiema and Vesala (2009) argue that properly designed risk-sensitive capital requirements can enhance credit allocation, which in turn may have an alleviating effect on procyclicality (see also Boissay and Sørensen, 2009).

#### *There was too little attention to systemic risks*

One of the main overall lessons of the crisis is that systemic risks that threaten the functioning of the financial system and the economy as a whole were not sufficiently taken into account in macroeconomic policies, regulation or supervision. In capital regulation, as in other regulation, the focus was on the safety of

individual institutions. The risks that stemmed from the collective behaviour of financial institutions and other economic actors were not adequately addressed. A key global policy objective must therefore be to reorient prudential regulatory frameworks to have a systemic focus.

There are two main sources of systemic risk (see eg Bank of England (2009), Chapter 3). Firstly, in the upswing phase of the economic cycle, households, financial corporations and non-financial corporations have a collective tendency to increase leverage and take excessive risks. In contrast, in the downswing, they become excessively risk-averse. Secondly, individual banks fail to take into account the spillover effects (externalities) of their actions on the risks of other financial institutions and the financial system as a whole. For example, a failure of a large financial institution would be likely to cause serious difficulties for other financial institutions through bilateral exposures, reputational concerns or panics.

Capital requirements are among the potential macroprudential policy instruments that could be used to reduce these systemic risks. The Bank of England (2009) suggests that policy-makers could set capital surcharges on top of current microprudential capital requirements to dampen the boom phase of the economic cycle. These surcharges could be applied to the overall capital requirements. Alternatively, in the upswing, capital-

ratio risk weights could be increased for certain exposures, such as housing loans, to restrain lending to an overheated economic sector (see Tucker, 2009). In the downswing, capital requirements would be relaxed to support bank lending.

Capital surcharges could also be used to reduce the systemic risk related to a failure of large and interconnected banks. The role of capital surcharges would be to force banks to internalise the costs of their failure on other parts of the financial system and provide incentives for banks to reduce their size and connectivity to other financial institutions. The institution-specific systemic surcharges could potentially depend on variables such as balance sheet size, the size of a bank's interbank liabilities or a value of its trading assets (see Bank of England (2009), Chapter 5).

Overall, the debate on the potential merits and shortcomings of capital requirements as macroprudential tools has only just begun and is likely to intensify in the coming months.

### Reforms to the capital adequacy framework

The Basel Committee on Banking Supervision announced in November 2008 a comprehensive strategy to reform the Basel II framework to reduce the weaknesses revealed by the financial crisis. The planned reforms aim, among other things, to increase the overall level of capital in the banking system, strengthen capital

requirements concerning trading-book and off-balance-sheet exposures, enhance the quality of Tier 1 capital, build larger capital buffers into the capital framework, supplement risk-based capital requirements with a simple gross measure of banks' leverage and strengthen Pillar 2 requirements on banks' risk management and governance practices.

Some of the announced steps have already been taken. In July 2009, the Basel Committee introduced tightened capital requirements for banks' trading books, with the aim of capturing some risks that the previous rules failed to address and reducing the incentives for regulatory arbitrage between the banking and trading books. In addition, the Committee increased the capital requirements against complex resecuritisations (CDOs of ABS). The new rules also prevent a bank from recognising external ratings in calculating its capital requirements when those ratings are at least partly based on its own guarantees or support. Thus, if a securitisation exposure (eg the ABCP issued by a conduit that the bank sponsors) is rated AAA and that rating is at least partly due to a guarantee provided by the bank itself, the bank should not benefit from its self-guarantee in its regulatory capital calculation.

According to a recent quantitative impact study conducted by the Committee, the changes will result in a more than three-fold increase in banks' capital requirements against market risk. The new requirements

*In July 2009, the Basel Committee introduced tightened capital requirements for banks' trading books.*

should be implemented no later than the end of 2010. The Basel Committee also raised Pillar 2 standards to address the flaws in banks' risk management practices and tightened the Pillar 3 disclosure requirements related to securitisation exposures and sponsorship of off-balance-sheet vehicles.

The Committee has also made progress in other elements of the Basel II reform (see Financial Stability Board, 2009). Headway has been made on a revised definition of capital, which will be evaluated in a quantitative impact study in 2010. The introduction of a leverage ratio as a supplement to the risk-based capital requirements is also progressing. The Committee is also preparing a proposal to build banks' countercyclical capital buffers. In December 2009, the Committee issued for consultation a large package of proposals to strengthen global capital regulations and to introduce a global minimum liquidity standard for internationally active banks. An impact study on the revisions to capital requirements and the calibration of the overall capital level will be conducted in the first half of 2010.

As a response to the financial crisis, the EU amended its Capital Requirements Directive for the first time in October 2008. The originators of securitised products were required to retain some of the securities they issue, the criteria for the eligibility of hybrid capital instruments as a part of banks' overall capital was clarified, the

rules on banks' large exposures were tightened and supervisors were required to establish 'colleges of supervisors' for banking groups that operate in multiple EU countries. The Directive was further amended in July 2009, when higher capital requirements for banks' trading books and resecuritisations were adopted in the EU. In addition, banks are required to have sound remuneration practices, and this will be supervised in the Pillar 2 supervisory process.

## Discussion

The global financial crisis has manifested itself to a large extent as a liquidity crisis. As a consequence, capital adequacy is not the only part of banking regulation that needs to be reformed. It is equally important to ensure banks have sufficient liquidity on their balance sheets. As discussed above, new regulatory initiatives have already been taken in this regard. Nonetheless, risks that first materialise as liquidity risks are often embedded in the credit and market risks that banks take. In the recent crisis, such a root cause was largely the subprime mortgages whose capital requirements turned out to be insufficient. This aspect emphasises the primary role played by capital requirements in ensuring the safety of banks.

However, the recent crisis has also reminded us of how difficult it may be to correctly measure banks' true risks and set capital requirements accordingly. Most of the current risk

measurement models would probably suggest there was only a tiny probability that the potential losses to banks experienced in this crisis would actually materialise. This puts the pressure on developing new models – perhaps adopting entirely new approaches to risk measurement modelling – that can incorporate severe crisis scenarios with more realistic probabilities.

Another concern with raising capital requirements from their current level is that this may lead to inefficiencies in financial intermediation. It may be that achieving a sufficient level of bank safety solely via high capital requirements is too costly a solution from the social point of view. New crises always tend to follow new patterns, at least in part, which may be missed by protective measures such as capital requirements. For these reasons, many leading academics have floated the idea of contingent capital arrangements that would not necessitate holding large capital buffers on banks' balance sheets in normal times. One form of this would be debt-equity swaps, ie bank debt being automatically converted to bank equity as a result of some pre-specified trigger event related to systemic risk, or subject to supervisory discretion. Other such ideas include capital insurance (see Kashyap, Rajan and Stein, 2008) and tradable insurance credits subject to public guarantees (see Caballero and Kurlat, 2009).

Common to contingent capital ideas is that they focus more on containing a potential crisis and could therefore be compared to fire sprinklers rather than measures to prevent fire.

## Conclusions

In this article we have reviewed some aspects of the discussion on reforming banks' minimum capital requirements in the wake of the global financial crisis. The overall level of capital requirements will most likely rise, and they will probably conform to business cycle fluctuations by being raised in economic booms and lowered in downturns. On the other hand, linking capital requirements to the systemic risk of individual institutions seems rather difficult at the moment.

Achieving better financial stability without sacrificing too much of the efficiency of the financial system is a very demanding goal. The best policy to achieve this goal will probably involve a mix of policy measures, not only reformed capital requirements. Other key measures could include liquidity regulations governing banks and an enhanced framework for restructuring failed banks.

*Keywords: Basel II, capital requirements, financial crisis, procyclicality, systemic risks*

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