De Nederlandsche Bank

Overview of Financial Stability

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Foreword

Financial stability is a continuous theme in DNB's performance of its tasks. This goes beyond monitoring the health of individual institutions under supervision. DNB expressly considers the interaction between financial institutions and their environment: other institutions, financial markets, infrastructure and the real economy. Policy directed to the system as a whole is generally referred to as macroprudential policy, as part of which DNB publishes an Overview of Financial Stability (OFS) twice a year.

The OFS outlines risks which impact on groups of institutions or entire sectors and could eventually disrupt the economy. It offers a concise overall view of these supra-institutional risks, with particular emphasis on the risks to the Dutch financial system and its environment. DNB draws up the OFS to make stakeholders – financial institutions, policymakers and the public – aware of these risks.

The risk analysis in the OFS is as forward-looking as possible. Looking ahead is coupled with uncertainty and DNB cannot predict all future risks. DNB aims to present the best possible risk analysis of future threats based on current knowledge. Where possible, DNB makes proposals for risk-mitigating policies. The analyses and recommendations in the OFS present institutions and policymakers insights into ways of reducing the effects of shocks in the financial system. This forms the first line of defence in safeguarding financial stability.

Summary and priorities

The outlook for financial stability in the Netherlands is worrying and places high demands on institutions and policymakers. Many of the risks described in the previous OFS have materialised.
The two biggest threats are the consequences of the European debt crisis and the weak economic recovery in advanced economies. The debt crisis has escalated: investors now openly doubt the debt positions of some large European countries and banks, also in the centre of the euro area. Public finances in virtually all European countries are deteriorating and a dangerous interaction has arisen between the soundness of the financial sector, that of governments, and stagnating growth prospects. In the financial markets, falling equity prices and climbing risk premiums reflect the negative sentiment. Crumbling confidence among investors and consumers is increasing the likelihood of a double dip scenario or a prolonged period of low growth. That would deepen the debt crisis.

Prevention of further escalation and a greater loss of confidence requires decisive intervention by **policymakers**. The euro area summit of 26 October has charted the course. Rapid and energetic implementation is now required. That applies for the announced enhancement of the European emergency fund EFSF's firepower and the reinforcement of banks' resilience. At the same time, Greece, Ireland and Portugal should meticulously carry out their EU-IMF programmes and Spain and Italy should actively implement the promised measures. European governments must adhere to their budgetary targets and introduce sustainable reforms to boost growth potential and achieve a sustainable debt position. Finally, enhanced European governance should safeguard these policies for the future.

Growth in the Netherlands is also slowing down. Budget Memorandum forecasts show that the Dutch government could narrow the budget deficit in 2012 to below three per cent of GDP, but the margins are tight. Discipline is all the more important because financial markets currently have little tolerance for badly performing governments. Besides, the Dutch government has guaranteed considerable amounts, not only in a European but also in a national context. For the credibility of fiscal policy, it would be unwise to slacken the reins at a time of increasing economic headwind.
The housing market is under pressure. This heightens the financial risks for households, which are already vulnerable because of their high debt position. The current fiscal regime stimulates taking on more debt and discourages repayments.

To strengthen households' financial position, **policymakers** should take structural measures to gradually reduce the fiscal stimulation of mortgage debt. A desirable improvement would be to determine the mortgage interest relief on the basis of a fictional repayment scheme. Policy adjustments should be introduced gradually and predictably, with a transitional regime for existing contracts.

The situation for financial institutions is likewise uncertain. If the economic climate does not improve, potential losses will increase, while the opportunities for reinforcing buffers through profit retention will diminish. The structure of the housing market also affects the banks' position. The extensive mortgage lending portfolios of Dutch banks are too large to fund solely through private sector savings. Banks are therefore dependent on capital market funding, which is under pressure. Financers are increasingly demanding collateral. The stagnating housing market is further curtailing the opportunities for raising funding.

For life insurers, it remains difficult to keep returns up. Demand for their products is waning and they have to contend with a long-running mis-selling scandal surrounding unit-linked policies. Low profitability, falling interest rates and asset prices, and the increase in longevity are depressing solvency and hindering the build-up of desired buffers. Pension funds are also grappling with poor returns because of low interest rates and negative sentiment in financial markets. Many funds' funding ratios are too low, and some could be compelled to announce cuts because of their weak financial position.

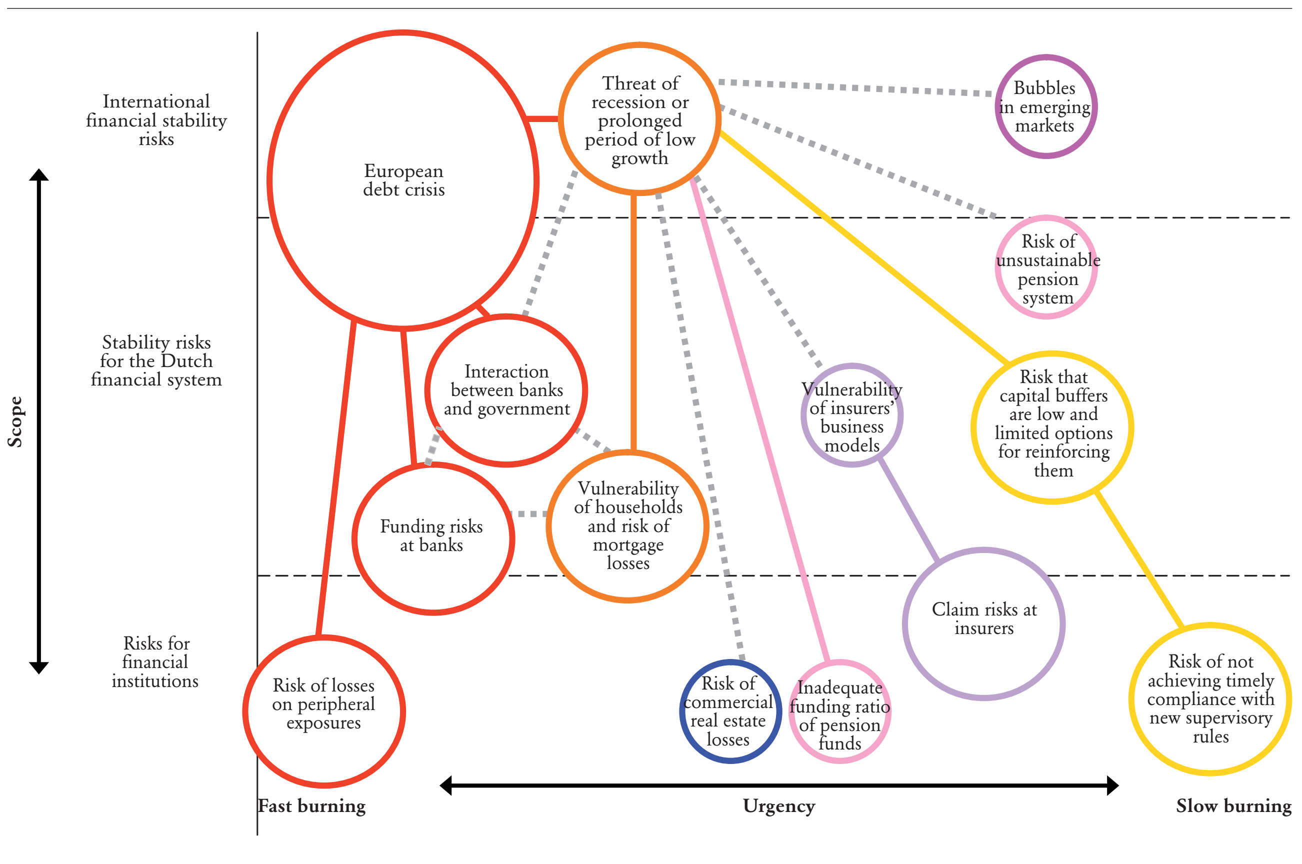
Banks, insurers and pension funds banks can contribute to restoring confidence by not allowing any uncertainty about their soundness. They must be transparent about the consequences of low returns, exposures to problem assets, including exposures to peripheral countries and commercial real estate, and other developments affecting their solvency.
DNB encourages **insurers** to publish a market-consistent valuation for newly-sold policies.
Pension funds must properly inform their members and pensioners about the fund's risk profile and the development of pension claims. A proposal to implement cuts must be timely announced.
Banks and insurers should make a concerted drive towards compliance with the new supervisory requirements under Basel III and Solvency II. They must cut costs for better results and retain profits to reinforce their capital, raising private capital where necessary.

Against the backdrop of the crisis, the reinforcement of the financial system is in full swing. The deposit guarantee scheme will be reformed by shortening the payout term and by building up a fund for paying compensation.

Systemically important banks need to prepare for specific requirements, including the build-up of an extra capital buffer and the development of recovery plans. **DNB** wants to improve the resolvability of systemically important banks. For these institutions, resolution plans will be drawn up, aimed at salvaging vital functions while limiting risks to the taxpayer and contagion effects.

The risk map below presents a graphic summary of the risks described in this OFS. The vertical axis shows whether the risks are in the international financial system, the national financial system or in specific institutions. The horizontal axis gives an indication of the pace at which the risk could manifest itself. The size of the circles reflects the estimated size of the risk. Colours groups risks with significant mutual interaction, while dotted lines show the connections between risks.

Main risks for financial stability



1 International environment

The debt crisis is continuing against the backdrop of a weak economic recovery. In the financial markets the positive sentiment felt at the start of 2011 has evaporated. Mounting risks have driven up banks' funding costs. The financial position of western governments is deteriorating too. Consumer and corporate confidence, crucial to keeping the recovery going, has fallen sharply. A new recession would deepen the problems the global economy now faces. Policymakers must intervene decisively to prevent further escalation and a greater loss of confidence.

European debt crisis

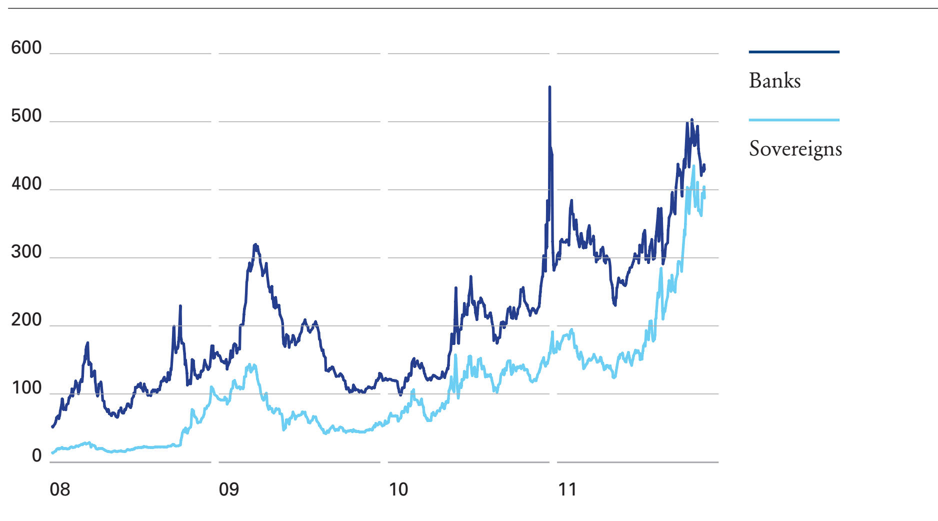
The European debt crisis remains the main threat to financial stability in the Netherlands. Since early 2010, the CDS premiums (premiums for derivatives that pay out in the event of default) on European bank and government bonds have climbed steadily. This means that, despite policymakers' efforts, market estimations of the risk that a bank or a country in the euro area will default are becoming ever higher (Chart 1).

The debt crisis intensified again in the summer of 2011. Markets now openly doubt the capacity of large, solvent European economies to continue funding themselves. Interest rates on Italian and Spanish government bonds soared in July. Italy and Spain are closely integrated in the European and global financial system and many financial institutions have considerable exposures to these countries. This also applies to Dutch financial institutions. The interdependency is even deeper if indirect relations are factored in, for example through exposures to banks that have in turn invested in peripheral debt. Stemming further contagion is crucial for European and Dutch financial stability.

Market parties see a steady increase in likelihood of default

Chart 1 CDS spread in the euro area

Five-year CDS spreads, in basis points, 1-1-2008 to 19-10-2011



Sovereign debt CDS spread is the GDP-weighted average of the individual Member States.
Source: Thomson Datastream and IMF.

Interaction
The uncertainty about the debt crisis reinforces the negative interaction between the banking sector and European governments. Doubt about the soundness of countries undermines confidence in banks because of their extensive exposure to sovereign debt, but also because governments form the ultimate safety net in the event of a threat to financial stability. Owing to this back-up function, doubt about banks in turn undermines confidence in governments.

A few months ago the negative interaction between governments and banks was seen as a risk. This risk has now materialised. Since July 2011, the rising uncertainty has made it difficult for banks to (re)finance themselves. This is not only true for peripheral banks, but also for banks in the core European countries, particularly if they have large peripheral exposures. Confidence between the banks themselves has cooled markedly and the interest rates in the interbank market are on the increase (Chart 2). Instead of lending to each other, European banks deposit surplus liquidities at the ECB. Funding by market parties outside of Europe has dried up too: responding to a shortage of US dollar funding, the ECB once again activated a three-month US dollar liquidity facility on 15 September.

High funding costs prompt banks to adjust their balance sheets. This puts downward pressure on lending and can have a negative impact on the real economy. High funding costs also squeeze banks' profitability, at a time when profit retention is the most effective way of further boosting capital buffers. The opportunities for raising new capital in the market are limited: investors doubt banks' capacity to surmount the crisis on their own steam. In the period from January through to October 2011, European banks' equity prices fell by over a third.

Many European banks are now worth less in the market than according to their annual accounts: the market value of large listed European banks represents no more than 45 per cent of their book value. That indicates that the market fears substantial hidden losses. If confidence in banks does not recover, governments might have to step in again to strengthen the buffers, at the very time that their own finances are under pressure.

Financial institutions should contribute to upholding confidence, by being transparent about their exposure to possible problem assets and other potential

Mistrust among banks is increasing, as reflected by elevated interbank rates of interest

Chart 2 Money market risk premium
In basis points, 1-1-2008 to 19-10-2011

Risk premium is the difference between the three-month Euribor and the three-month EONIA SWAP index.
Source: Thomson Datastream.

losses. Moreover, they should look for opportunities to reinforce their capital position, for example by adding profit to the buffers and by improving their results by cost-cutting or, if necessary, by raising capital in the market. The measures by the European Council to improve banks' capital position and their access to funding provide significant support.

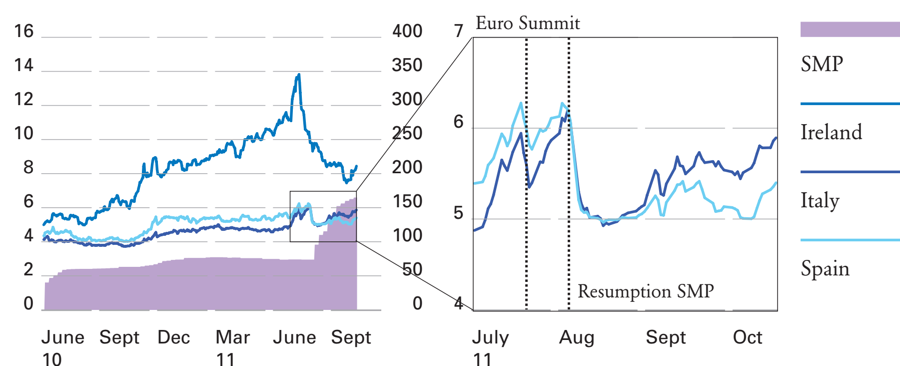
Decisiveness is crucial
The increasing contagion of the financial system shows that the nature of the debt crisis has changed. What started as doubt about the debt sustainability of an individual Member State, has turned into a crisis of confidence in the capacity of European policymakers to resolve the crisis. To contain the contagion it is crucial that policymakers intervene decisively to restore confidence.

The crumbling confidence is reflected in the unfavourable market response to the measures announced at the euro area summit of 21 July (Chart 3). The interest rate on Italian and Spanish bonds surged in advance of the summit, and European policymakers failed to restore confidence. Because the financial crisis threatens the transmission of monetary policy, and hence price stability, the ECB in August resumed its interventions in the market for sovereign debt (the Securities Markets Programme or SMP). The ECB's intervention restored some calm to the bond markets. This merely offers temporary relief, which does not solve the underlying fiscal and structural economic problems, and forms no alternative to European safety nets.

Structural measures at national level
A definitive solution requires that all euro area countries implement fiscal measures to realise primary budget surpluses and structural reforms to strengthen growth potential. Both types of measures are essential to safeguard the solvency position, so that any financing problems may be credibly addressed.

For Greece, Ireland and Portugal, which receive support from the EU and the IMF, this means that they must meticulously comply with the conditions of the attendant programmes. Ireland's progress shows that a credible reform agenda can offer a way out from the negative dynamics of the debt crisis. The interest rate on Irish government bonds has now fallen substantially. Moreover, the sharpest fall occurred during a period in which no significant purchases of government bonds took place under the SMP (Chart 3); the drop is hence not caused by ECB purchases.

Chart 3 Ten-year interest rates on government bonds
In percentages, Securities Markets Programme (SMP) in EUR billion (right-hand scale), 1-6-2010 to 19-10-2011



The market response to the Euro Summit of 21 July is negative

Source: Thomson Datastream and ECB.

Box 1: Measures by selected governments in response to the European debt crisis

	Measure	Announced	Status
Europe			
	EFSF made more flexible and its effective lending capacity increased	21 July 2011	Ratification completed on 13 October 2011
	Establishment of European Stability Mechanism	28 November 2010	Adopted by the Council (25 March), ratification expected at end-2012
	Comprehensive package (including enhancement of SGP, macroeconomic imbalances procedure)	29 september 2010	Accord reached with EP, formal approval by the Council expected on 8 November 2011
	Increase in EFSF's firepower	26 October 2011	Details have yet to be worked out
France			
	Increase in wealth tax and income tax for highest incomes	24 August 2011	Partially adopted on 8 September 2011
	Amendments to corporate tax	24 August 2011	Adopted on 8 September 2011
Italy			
	Fiscal measures targeted at achieving a balanced budget in 2013	5 August 2011	Adopted on 14 September, but measures proving insufficient
	Inclusion of deficit rule in the Constitution	5 August 2011	Parliamentary treatment as of September
	Labour market reforms (including women's retirement age, liberalisation of protected professions, relaxation of rules on dismissal)	5 August 2011	Partially adopted on 14 September
	Additional fiscal measures and structural reforms	26 October 2011	Details still unclear, parliamentary treatment not yet under way
Spain			
	Budget consolidation programme and labour market reforms	May 2010	Largely on schedule
	Additional fiscal measures (amendments to corporate tax and reduction in spending on health care) (0.3% of GDP in 2011, 0.5% of GDP in 2012)	19 August 2011	Approved by parliament
	Inclusion of deficit rule in the Constitution (including controls on local government finances)	19 August 2011	Approved by parliament
	Measures to make labour market more flexible	19 August 2011	Awaiting parliamentary approval
Greece, Ireland, Portugal	These countries are implementing an EU-IMF programme. The ECB, EU and the IMF are monitoring progress.		

Italy and Spain, but the other EU Member States too, will have to carry out reforms in order to remain in control (Box 1). A risk is that the emphasis will fall solely on short-term consolidation, the rewards of which will be seen rapidly, but which will have a negative procyclical effect on economic activity. Sustainable measures that enhance an economy's growth potential often prove difficult to navigate through parliament. The rewards of reforms are less tangible in the short term, whereas the burdens are often directly visible. Sound public finances and sustainable measures targeted at improving competitiveness and growth potential are, however, both

essential for a sustainable debt position and are of great importance for the solidity of the currency union as a whole.

Measures at European level
The agreements made in the Euro Summit of 21 July on making the European Financial Stability Facility (EFSF) more flexible have been ratified. The facility can therefore be used to purchase government bonds in the secondary markets and to recapitalise banks. The wider scope of the facility is important in order to break the negative interaction between public finances and the banking sector

During the Euro Summit of 26 October government leaders agreed on a comprehensive approach to the European debt crisis. These agreements are geared to restoring debt sustainability in vulnerable countries and limiting further contagion. The effectiveness of these agreements depends on their practical implementation. If they are to win back the confidence of market parties who doubt European ability to act decisively, European politicians must demonstrate that they can quickly and effectively put these decisions into action. They must increase the EFSF's firepower as promised, so that it can form a credible safety net should larger countries such as Italy and Spain run into difficulties.

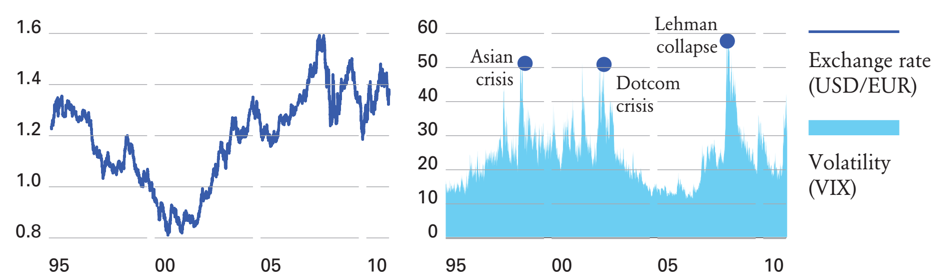
At the same time, the build up of new imbalances within the euro area must be avoided. This requires reinforcement of the economic governance in Europe. The amendments to the Stability and Growth Pact (SGP) and the new procedure for macroeconomic imbalances, on which the European Parliament and the European Council reached an accord in September, are an important step in the right direction, but do not go far enough. More far-reaching measures targeted at compelling compliance with agreements are essential. Options are automatic sanctions and restriction of the sovereignty of countries that repeatedly break the rules. The Commission must present concrete proposals to this effect in the short term. Political sanctions exert pressure without accelerating the downturn in a problem country. Sanctions must remain credible so as to ensure that they will actually be imposed. In addition, attention should also be given to other imbalances than in the area of fiscal policy, such as countries' competitiveness and financial sector resilience.

Likelihood of a new recession

Persistent negative reports about the health of advanced economies are making the financial markets highly volatile. Chart 4 shows the VIX index, a measure for uncertainty and volatility in the equity markets. This index is much higher than in the run-up to the crisis, even compared to the period shortly before the collapse

Uncertainty is still high in financial markets

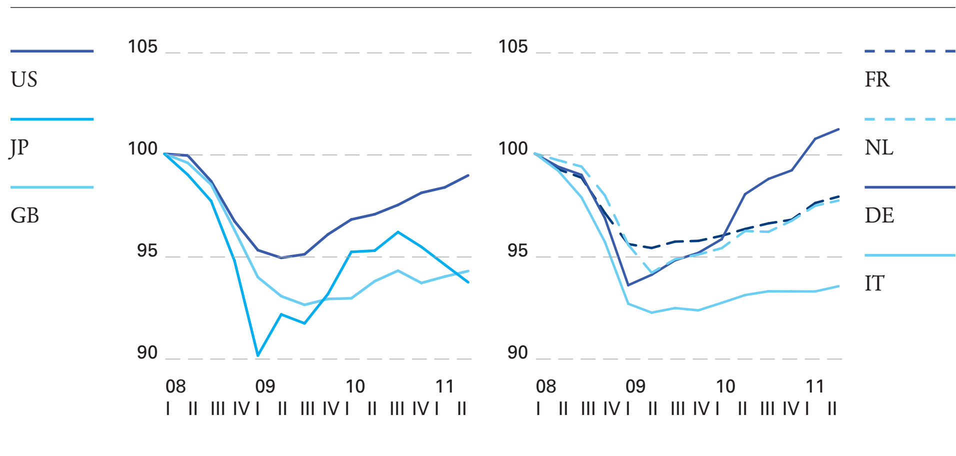
Chart 4 Exchange rate (USD/EUR) and VIX index
Dollars per euro (left-hand chart) and VIX index (right-hand chart), 1-1-1995 to 19-10-2011.



Source: Thomson Datastream and CBOE.

Chart 5 Real GDP per capita
Index: 2008QI = 100.

Economic recovery is slow



Source: Thomson Datastream and the World Bank.

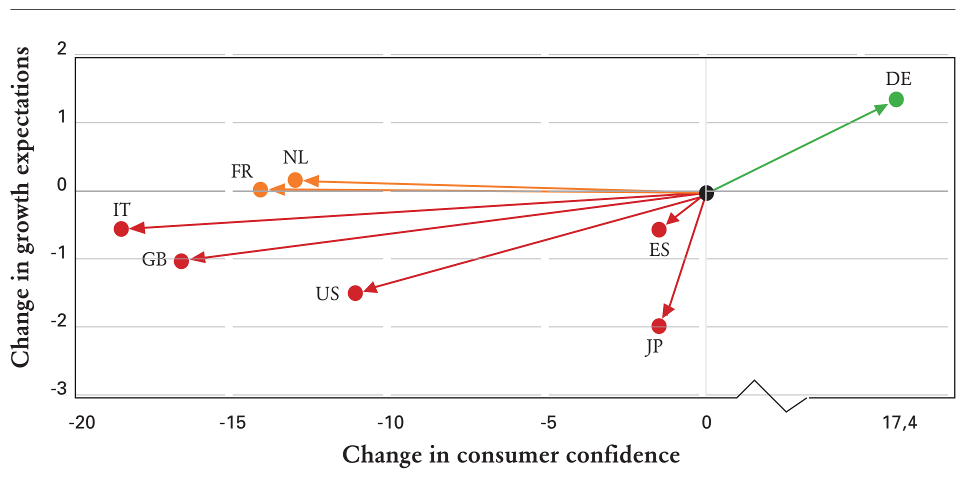
of Lehman Brothers. The euro-dollar exchange rate is also much more erratic than before the crisis. This not only reflects uncertainty about the European debt crisis, but also an abundance of disappointing news from the US.

After all, Economic growth in the US has lagged expectations for some time. Both forecasted and actual figures were repeatedly revised downwards during 2011. Following a sharp economic contraction in 2008, recovery is slow in getting under way. Although real GDP per capita is growing, it has not yet regained its level of 2008. For US consumers, who still face high debt levels and falling house prices, the recovery still feels like a recession. Meanwhile unemployment rose to over nine per cent during the crisis and remains persistently high. Economic growth in Japan and the United Kingdom is lagging even further behind (Chart 5).

As a result of the weak recovery and the plethora of negative news, confidence in virtually all western countries remains low (Chart 6). In this climate, enterprises and consumers remain cautious in their investments and expenditures. Continuing uncertainty about economic developments and mounting fear of recession can

Chart 6 Change in growth expectations and consumer confidence
Change in expectations per September 2011 relative to January 2010, in percentage points.

Consumer confidence is in retreat in most countries



Source: Thomson Datastream and Consensus forecast.

trigger a self-reinforcing, downward spiral. The risk of a double dip – a new global recession, following rapidly on the slump in 2008 – has now clearly increased. Another conceivable scenario is that growth will stay low for many years, keeping real interest rates persistently low too. The combination of low interest rates, a banking crisis and asset price corrections are reminiscent of the experience in Japan, where economic growth has now been close to zero for two decades.

The interaction of a global slowdown in growth with the debt crisis and the sentiment in financial markets is dangerous. A worldwide recession will cause a further deterioration in countries' debt sustainability, further eroding confidence. A strong (double dip) or prolonged (Japan) slowdown in growth will also threaten financial stability in the Netherlands in various ways. In different sections, this OFS looks at the implications for the Netherlands: potential vulnerabilities of households (Chapter 2), the government (Box 2) and the financial sector (Chapter 3).

Consequences for debt sustainability

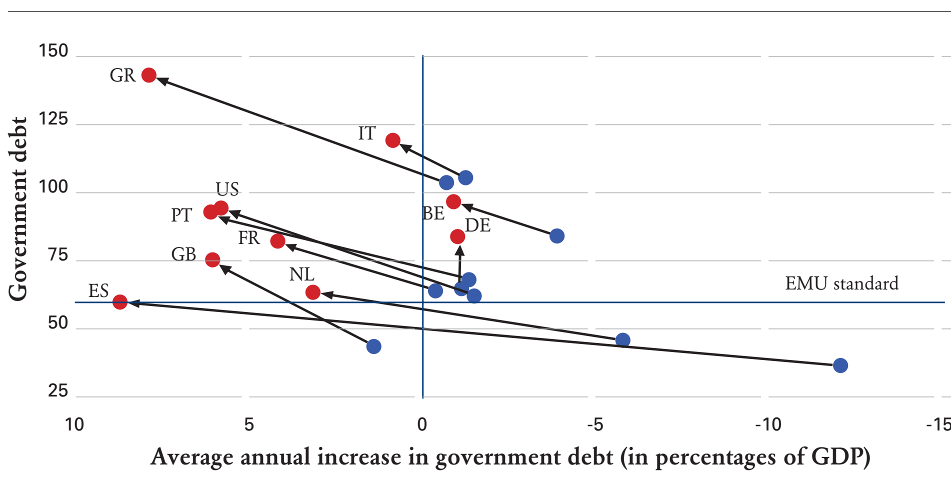
The poor growth prospects present a real risk that markets will lose confidence in the debt sustainability of more countries. This problem is not confined to Europe. Since the crisis, virtually all developed countries have experienced a sharp increase in government debt, a slowdown in economic growth and a serious deterioration in their fiscal position. If a country is to preserve the stability of its debt position, its economic growth must, on average, be equivalent to the budget deficit as a percentage of government debt. In order to have adequate buffer capital, the initial government debt position should not be too high. In Chart 7 a country with healthy public finances is at the lower-right. The position of almost all countries has deteriorated since the start of the crisis, in some cases quite considerably.

In Europe, the interaction between the fear of hidden losses in the banking sector and the size of government debt is crucial for the perception of debt sustainability. To understand this interaction it is important to know how much losses a bank could absorb itself, and how much may come at the government's expense. Two measures are the size of possible problem assets relative to bank capital and the relative size of these assets against the economy's size. Both measures are presented in Chart 8. Banks' exposures to GIIPS countries – Greece, Italy, Ireland, Portugal,

Health of Western countries' public finances weakens markedly

Chart 7 Health of public finances and government debt before and after the crisis

Average annual increase in government debt and government debt, in percentages of GDP.



Average annual increase in government debt = GDP growth – (net budget position/government debt). Relates to three-year averages, 2005 to 2007 versus 2010 to 2012. Government debt relates to 2007 versus 2010.
Source: IMF - WEO.

and Spain – are shown as a percentage of GDP on the horizontal axis and as a percentage of banks' Core Tier 1 capital on the vertical axis. The government's starting position is obviously important too; the colour of the circles reflect the size of government debt.

Charts 7 and 8 show that there are large differences between European countries, and even between the GIIPs countries themselves. The latent losses in all GIIPS countries are large. In Greece, Ireland and Portugal, both the size of the government debt and the health of government finances pose a problem. Although the health of public finances in Spain has seriously deteriorated, government debt is relatively low. The reverse is the case in Italy.

Besides fear of bank losses and the health of public finances, the political drive to carry out adjustments plays an important role in the perception of a country's creditworthiness. This is clearly visible for European countries. But political uncertainty was also an important reason for credit rating agency S&P to downgrade the US credit rating in August 2011. Japan was likewise downgraded.

Emerging economies

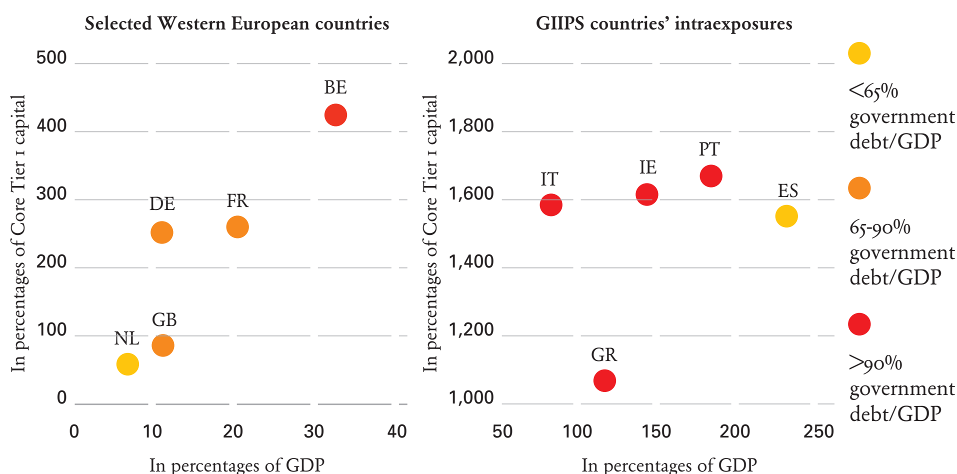
In contrast to the weakening prospects in the western economies, emerging economies have been reporting impressive growth rates for some time. Since this year, Asia and South America even have a slightly positive output gap (Chart 9), meaning that GDP growth in the countries in these regions is above trend. As long as the western economies focus on balance sheet recovery in the public and private sector, the emerging economies are an important bolster for the world economy.

Their rapid recovery is not without risks, however. Loose monetary conditions and fear of low growth in developed economies, coupled with expectations of rapid growth in Asia and South America in particular, are generating capital flows to these regions. This may result in upward pressure on lending and asset prices, and consequently in overheating of the economy and bubble formation. Moreover, there is a risk of an abrupt reversal in capital flows owing to sudden risk aversion among investors. An important indicator for financial imbalances is credit growth.

The interaction between banks and governments exposes differences in vulnerability

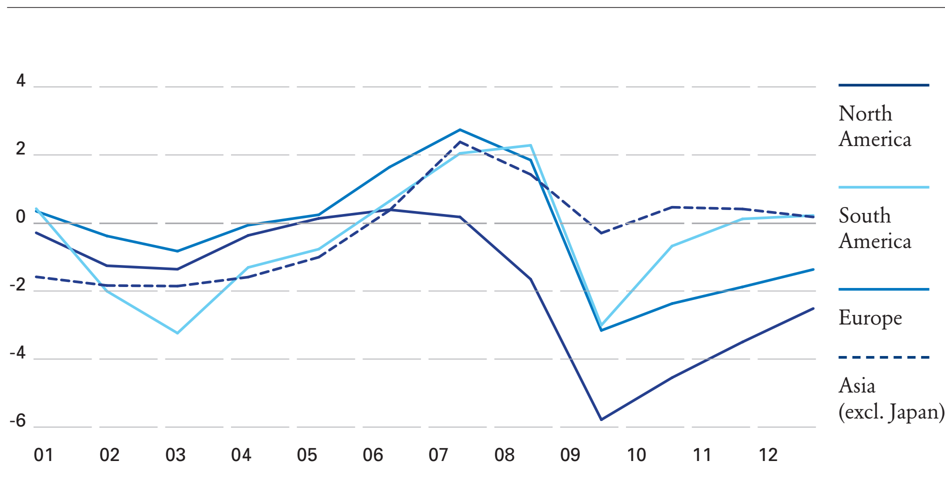
Chart 8 Claims of national bank sectors on GIIPS countries

In percentages, the colour of the circle indicates the size of the government debt in percentages of GDP, end-2010



Source: EBA, Eurostat and DNB calculations.

Chart 9 Output gap
In percentages, divergence from potential GDP, 2001 to 2012.



Source: IMF - WEO April 2011.

In emerging economies recovery is well underway, but the US and Europe are lagging behind

Rapid credit growth may result in a deterioration in the quality of assets, because financial institutions relax their lending terms too much. Credit growth in many emerging economies is above trend (Chart 10). Turkey especially is an outlier, but credit growth in China is likewise high. Dutch financial institutions operating here must take the potential vulnerabilities of these countries into account.

For emerging economies relying on exports for growth, the faltering recovery in advanced economies presents an extra risk. A case in point is China, the pivot of Southeast Asia in economic terms. Sustainable measures that support domestic demand make the domestic economy less vulnerable, while also improving the resilience of the global economy.

After all, at the very time that many emerging economies are approaching the peak of their economic cycle, there is a risk that the pillar for growth may suddenly fall away. A hard landing for emerging markets will further depress the global economy as a whole. That will intensify the problems facing Western countries, including the Netherlands, as our business cycle is strongly affected by developments abroad.

Chart 10 Credit development in emerging markets
Divergence from trend = actual – trend, in percentage points, 2003 Q1 to 2011 Q1.

The above charts show the divergence of the credit-to-GDP ratio from trend. Trend is calculated using linear regression (OLS).
Source: Thomson Datastream.

Credit growth in emerging economies outpaces the already high trend

2 Dutch real economy

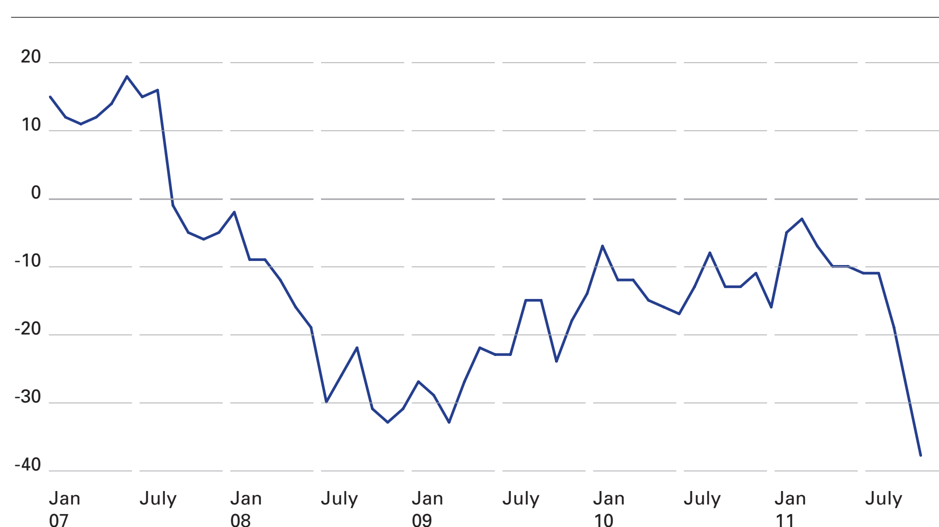
Confidence of Dutch consumers has declined sharply in recent months and the threat of a new recession is looming larger. Households have a high debt ratio and an economic slowdown could expose vulnerabilities. The government's debt ratio is better, but the budget deficit is higher than is consistent with a stable debt ratio and the outlook for public finances is surrounded by uncertainty. To maintain sufficient buffers to absorb shocks, the government must adhere to prudent fiscal policy.

The turbulence in financial markets is depressing confidence among Dutch consumers. The consumer confidence index declined sharply in August, September and October 2011 (Chart 11).This is generally a harbinger of a slowing economy. Recent forecasts back this up. According to calculations by the Netherlands Bureau for Economic Policy Analysis (CPB), the Dutch economy will grow by no more than 1 per cent in 2012. Unemployment has been rising since mid-2011 and is now over 5 per cent.

Dutch credit growth clearly caved in during the crisis but, unlike elsewhere in Europe, remained positive (Charts 12a and 12b). This moderate credit growth is in itself favourable and probably slightly tempered the economic downturn of the past few years. At the same time, both corporate and mortgage credit growth were above trend for a prolonged period prior to the crisis. Notably households have historically high debts, while other wealth components – such as their own home – have fallen in value.

Chart 11 Confidence of Dutch consumers

Balance of positive and negative responses, in percentages, January 2007 to October 2011.

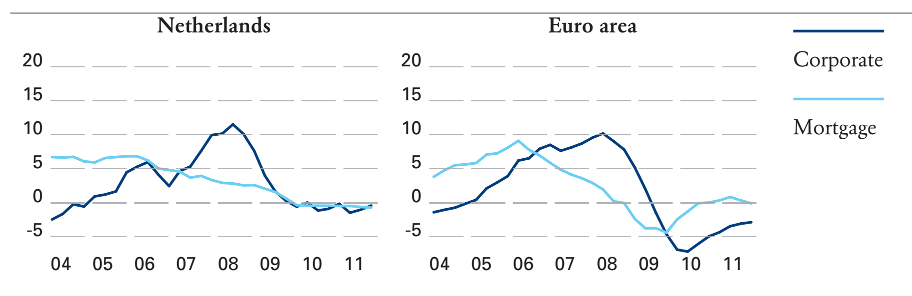


Source: Statistics Netherlands.

Confidence has fallen sharply in the Netherlands too

Chart 12a Bank credit growth

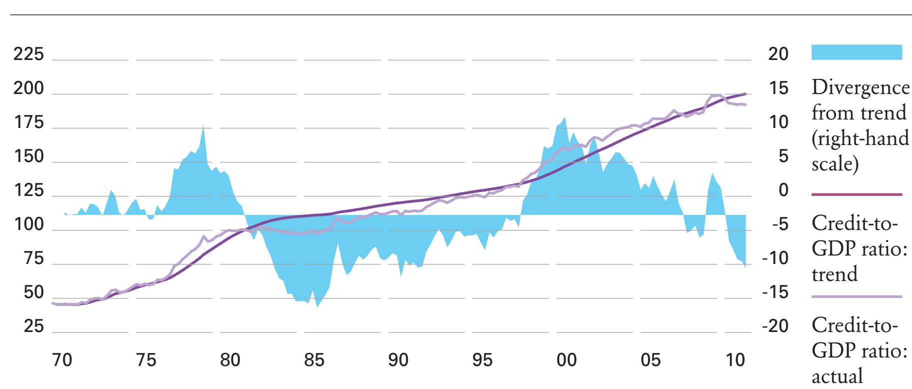
Year-on-year change in percentages; Dutch credit growth data is adjusted for securitisations, 2004 Q1 to 2011 Q3



Source: DNB, ECB.

Chart 12b Credit development in the Netherlands

Ratios in percentages of GDP. Divergence from trend = actual – trend, 1970 Q1 to 2011 Q2.



Trend is calculated with an HP filter with a λ of 400.000.
Source: IMF, Statistical Nethelands, DNB and own calculations.

Under Basel III, banks must build up an extra capital buffer in times of excessive credit growth, which they can draw on during a crisis. The ratio between national credit growth and GDP will in the future form an important indicator for buffer decisions by DNB. The key issue is the divergence of this credit-to-GDP ratio from its long-term trend. If this divergence is substantial, the authorities may decide to activate or increase the buffer requirement, which in normal times is set at zero. In advance of the introduction of the contracyclical buffer in 2016, the credit-to-GDP ratio will be included in the Overview of Financial Stability. For more information, see OFS 13, Spring 2011.

Households and housing market

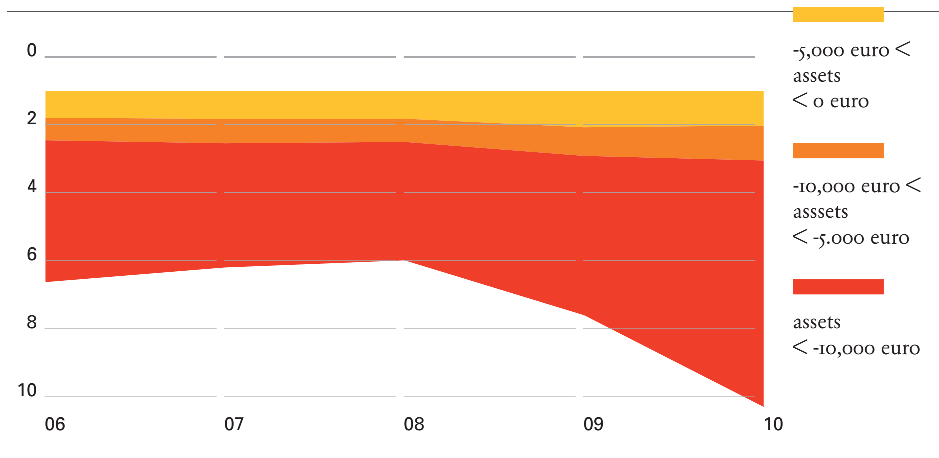
A faltering economy has additional consequences for households, which are already vulnerable because of their high debt ratio. Declining real wages and rising unemployment are putting pressure on incomes. An ever larger share of households have negative net assets (Chart 13). The smaller asset buffers also amplify the interaction with the real economy, because households are sooner compelled to adjust their spending pattern.

For most households, home ownership is the largest wealth component. The steady fall in house prices is weakening their position while also increasing the likelihood of debt problems if, owing to unemployment for example, they sell (or are forced to sell) their home at a low price. The average house price has fallen by around eight per cent relative to the peak in 2008 and the number of housing transactions is around 40 per cent lower than in the period prior to the credit crisis.

As home ownership forms such a large share of household wealth, falling housing prices and a declining number of transactions cause unrest. The Dutch government has taken a number of temporary measures to stimulate the housing market. For

Chart 13 Households with negative net assets

In percentages of total number of households, as at 1 January.



Source: Statistical Nethelands.

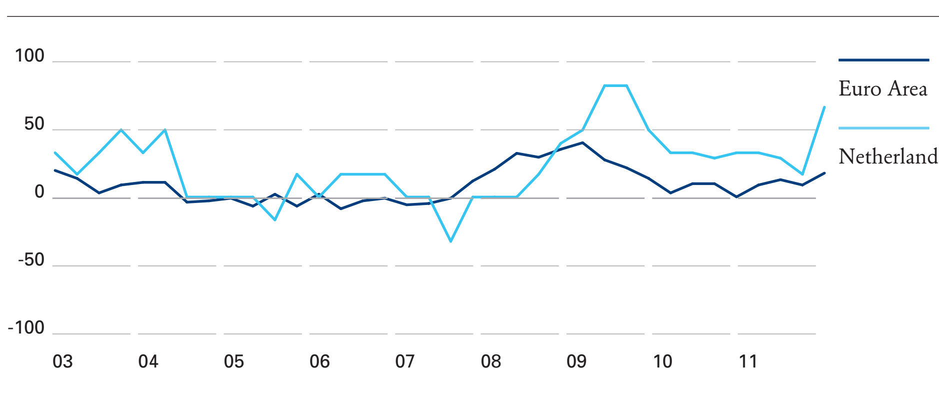
Ever more households have negative net assets

a start, it has relaxed the terms of the National Mortgage Guarantee scheme. The maximum house price in order to qualify for the guarantee was raised from EUR 265,000 to EUR 350,000. Under this scheme, the government takes on a large part of the credit risk. This enables lenders to keep their interest rates artificially low, boosting households' borrowing capacity. In addition, the government has extended the maximum period during which households are entitled to double mortgage interest relief when they have bought a new house but have not yet sold their old one. This enhances both borrowing capacity and market liquidity. Finally, stamp duty has been lowered from six per cent to two per cent. The latter measure is the only one of the three that actually reduces frictions in the housing market. However, as the measure is temporary, it is likely to trigger only short-lived responses in behaviour.

Measures that advance the operation of the housing market, such as the permanent reduction of stamp duty, may help to get the market afloat. It would be better to avoid any stimulation measures that would further enlarge households' borrowing capacity. Household debt is almost nowhere as high as in the Netherlands. Despite the tightening in mortgage lending criteria since the outset of the crisis (Chart 14), mortgage lending did not contract during any quarter since then. Since 2007 there has even been an increase of around 25 per cent.

Chart 14 Lending criteria for mortgages

Increase represents a tightening, 2003 Q1 to 2011 Q3.



Mortgage terms are tightened

Relates to percentage of positive minus negative responses.
Source: DNB and ECB Bank Lending Survey.

The current interplay between regulations and mortgage lending results in vulnerabilities among households, but also among banks (see Chapter 3) and, through its back-up function for the NHG, even the government. Sustainable measures are required to counter imbalances in the housing market. It is essential, however, to introduce these measures gradually and predictably. Households and lenders then have time to adjust to the new circumstances.

Reduction of the fiscally stimulated debt is required to structurally improve the resilience of households and mortgage lenders. Mortgage interest relief stimulates people to take on debt and discourages repayment. A desirable improvement would be to determine the mortgage interest relief on the basis of a fictional repayment scheme. Interest relief in excess of this, say, equal annual instalment scheme would then be no longer possible, meaning that repayment during the life of the loan is no longer discouraged. However, the stimulus to borrow the maximum amount is still in place, and it is hence desirable to further reduce LTV ratios (the amount borrowed relative to the collateral) in the future.

The new Mortgage Lenders Code of Conduct is a step in the right direction towards preventing excessive lending. This code of conduct sets a limit to the LTV ratio of 106 per cent and restricts the interest-only part of the mortgage. Lenders must strictly comply with this code. It should be noted that, with an LTV limit of 106 per cent, the size of the loan still exceeds the value of the collateral, meaning that notably first-time buyers in the housing market remain financially vulnerable if house prices fall.

Government

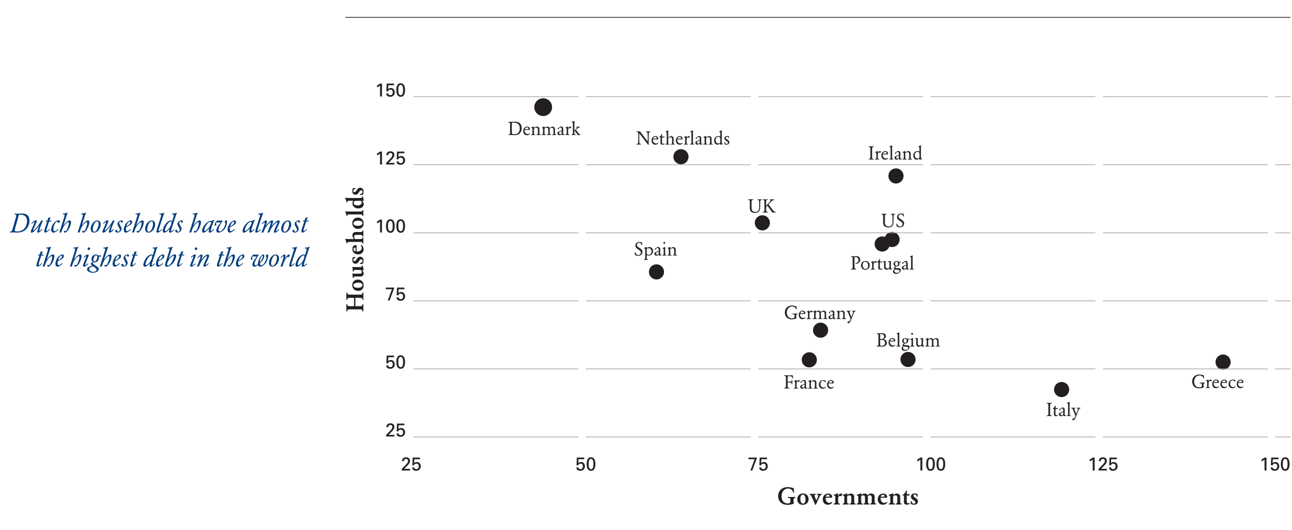
The Dutch government's debt position deteriorated during the crisis but is still moderate from an international perspective (Chart 15). Sound government finances are essential in order to absorb future economic shocks, withstand the effects of demographic ageing and preserve financial market confidence. The government must hence safeguard the favourable starting position.

The existence of implicit and explicit state guarantees and the vulnerability of the net budget position to economic conditions are significant risks for debt sustainability.

Dutch households have almost the highest debt in the world

Chart 15 Debt of households and sovereigns

In percentages of GDP.



Households relate to data at 2009, sovereigns at 2010.
Source: OECD and IMF.

Government measures to support the financial sector in the recent past are still leaving their mark on government debt. The impact of the economic recession of 2008 and 2009 on Dutch public finances is also clearly visible. This is also the case in other countries. With the exception of Estonia and Luxembourg, all euro countries are now undergoing an excessive deficit procedure to narrow the budget deficit back below the three percent of GDP standard within a set timeline. The Netherlands has committed itself to bringing the budget deficit below the deficit ceiling in 2013.

Moreover, it was agreed at the start of the Cabinet term that, should the deficit diverge by more than one percentage point from the budget path then agreed, further austerity measures would be required (Chart 16). The Dutch government deficit fell slightly last year, from 5.6 per cent in 2009 to 5.1 per cent in 2010. According to forecasts in the Budget Memorandum, the budget deficit in 2011 will decrease to 4.2 per cent in 2011, and will narrowly slip below the three percent ceiling in 2012, just barely within the agreed range. Total government debt in that year is expected to amount to 65 per cent of GDP. The uncertainties in these estimates are exceptionally large, however. Even just a marginal further slowdown in growth would necessitate further cutbacks in order to continue fulfilling the agreements and preserve their credibility.

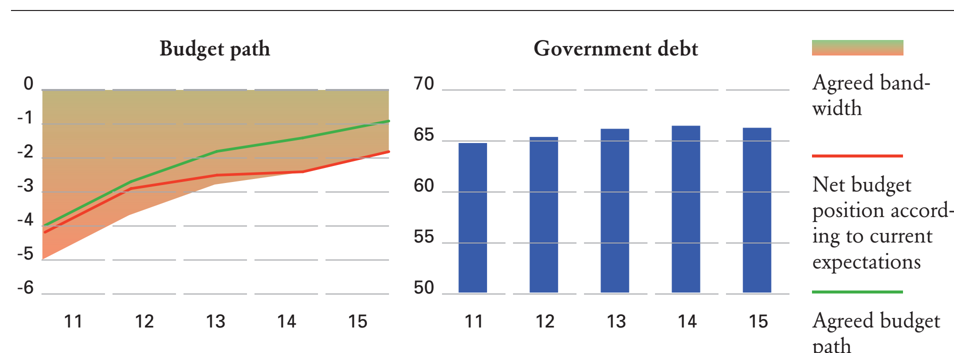
The widening and deepening of the debt crisis is putting further pressure on public finances. The European leaders announced measures on 21 July 2011 to prevent the crisis from spreading. This resulted in an increase in the Dutch guarantees for the EFSF to a maximum of EUR 100 billion.

Confidence in the Dutch government nonetheless remains as strong as ever. The risk premium on government bonds is one of the lowest in the euro area, partly because the Netherlands profits from the flight to safe assets. A stress test of public finances conducted by the Dutch government supports the favourable picture of shock resilience: the results show that government debt could still absorb a serious hit (Box 2). In view of the current threats to public finances, the stress test is a useful instrument for charting the consequences of a new recession and a number of the Dutch government's implicit guarantees. It would be advisable for the government to further develop the stress test and make it a fixed component of the budget cycle.

The government has little scope for absorbing setbacks

Chart 16 Fiscal agreements in the Netherlands

In percentages of GDP.



The fiscal rules allow for a maximum deviation of one percentage point relative to the agreed budget path given in the Cabinet's Initial Memorandum. The net budget position relates to the EMU balance.
Source: Budget Memorandum 2012 and Initial Memorandum (Ministry of Finance, 09-11-2010).

Box 2: Stress test of Dutch government

The Ministry of Finance presented the stress test of Dutch public finances along with the Budget Memorandum in September. The stress test is a first attempt to look at public finances from a risk perspective. The stress test describes the consequences of various financial and economic shocks for the development of the budget deficit and government debt. All scenarios assume a double dip recession. Extra shocks, such as a renewed financial crisis or a deterioration of the debt crisis, were added to some scenarios. The calculations take account of correlations between various risks and indirect effects through, for example, guarantees to the financial sector.

In all of these scenarios, debt increases over a five-year period by 20 to 30 percentage points of GDP relative to current expectations, up to a maximum of 95 per cent of GDP. These results illustrate that Dutch public finances can absorb a blow. At the same time, the deterioration in public finances in the calculations shows the importance of both keeping government debt at a maximum of (but preferably less than) 60 per cent of GDP and restricting guarantee schemes.

It should be emphasised that the stress test is only a first step in inventorying the risks for public finances. Subsequent action is required; the situation of countries such as Ireland and Spain shows that the budget deficit and government debt come nowhere near fully reflecting a country's capacity to absorb hits. Spain is struggling with structural competitiveness problems, leading markets to doubt the country's earning capacity, whereas the Irish government bit off more than it could chew by issuing guarantees for the large banking sector

3 Dutch financial sector

Dutch institutions currently have to operate in an exceptionally uncertain environment. Profits of banks and insurers have come under pressure, hampering the build-up of buffers and institutions' migration to new supervisory requirements. Life insurers also face declining sales and eroding public confidence owing to a long-drawn mis-selling affair, low interest rates and increasing life expectancy. Many pension funds have seen their funding ratios drop beneath the required minimum. Banks have seen financing costs and provisions for credit losses rise. Further reinforcement of buffers is needed to ensure access to funding markets into the future.

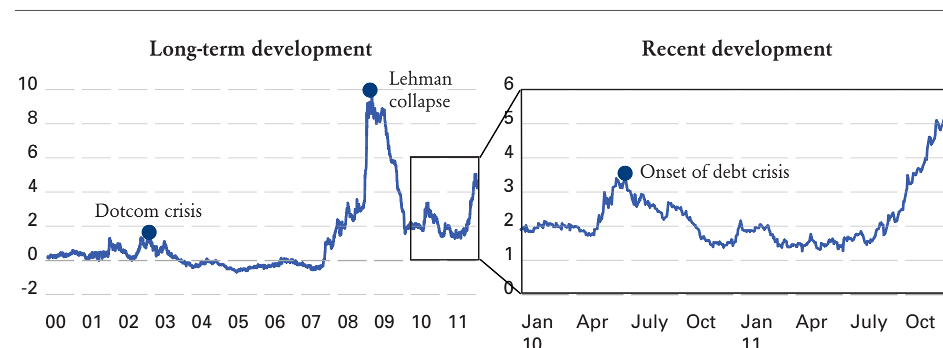
The environment in which Dutch financial institutions operate developed adversely over the past six months. Chart 17 shows the development of the financial stress index for the Netherlands, which measures tensions in four important financial markets. Financial conditions in the Netherlands are strongly affected by developments in the international environment: increasing uncertainty arising from the sovereign debt crisis and the risk of a double dip. Starting in June, the index rose significantly owing to increased volatility in the banking sector and in bond and equity markets. In September 2011, the stress level was well above that of May 2010, which marked the onset of the European sovereign debt crisis, or that of August 2008 preceding the demise of Lehman Brothers, yet still below the level following that demise.[1]

Financial institutions' operating environment deteriorates

If uncertainty persists and economic activity slows down further, profits of financial institutions will also come under pressure. Stress tests have shown that Dutch banks and insurers are, in principle, able to stand up under a scenario of new economic stagnation – provided that contagion from the sovereign debt crisis remains confined. The stress tests do not reveal how the current risks inherent in sovereign

Chart 17 Financial stress index

1 Jan 2000–1 Oct 2011.



FSI is based on four sub-indicators: bond, stock and currency markets and some markets specifically related to the Dutch banking sector.
Sources: Thomson Datastream, Bloomberg, Euronext and DNB.

1 The indicator consists of indices for the Dutch bond, equity and currency markets and a few markets specifically linked to the Dutch banking sector. The indicator is based on the FSI index of the Canadian central bank. See Illing, Mark, and Ying Liu (2006), *Measuring financial stress in a developed country: An application to Canada*, in: Journal of Financial Stability 2, 243–65.

debt positions and the concomitant funding issues may impact the soundness of financial institutions. Financial institutions may actively help to sustain confidence by observing maximum transparency about their exposures to potential problem assets – including peripheral exposures but also commercial real estate – and the associated potential losses they may incur.

Banks

Deteriorating economic conditions are reflected in the declining profitability of Dutch banks. Yet banks do still make profits, whereas during the credit crisis they dipped into the red. Profits have come down, however, from EUR 2.9 billion in the first quarter of 2011 to EUR 1.4 billion in the second. Chart 18 shows that the decline in profits is largely attributable to institutions' increasing provisions. This increase over recent years is an indication that banks expect to make losses in their lending portfolios. During the second quarter of 2011, banks added more to provisions than in any quarter since the beginning of 2010. Apart from higher provisions, banks have also accumulated larger capital buffers for unexpected losses. An encouraging development is that banks have used a large share of their profits to reinforce their buffers. These are currently EUR 3.8 billion larger than a year ago.

Migration to Basel III

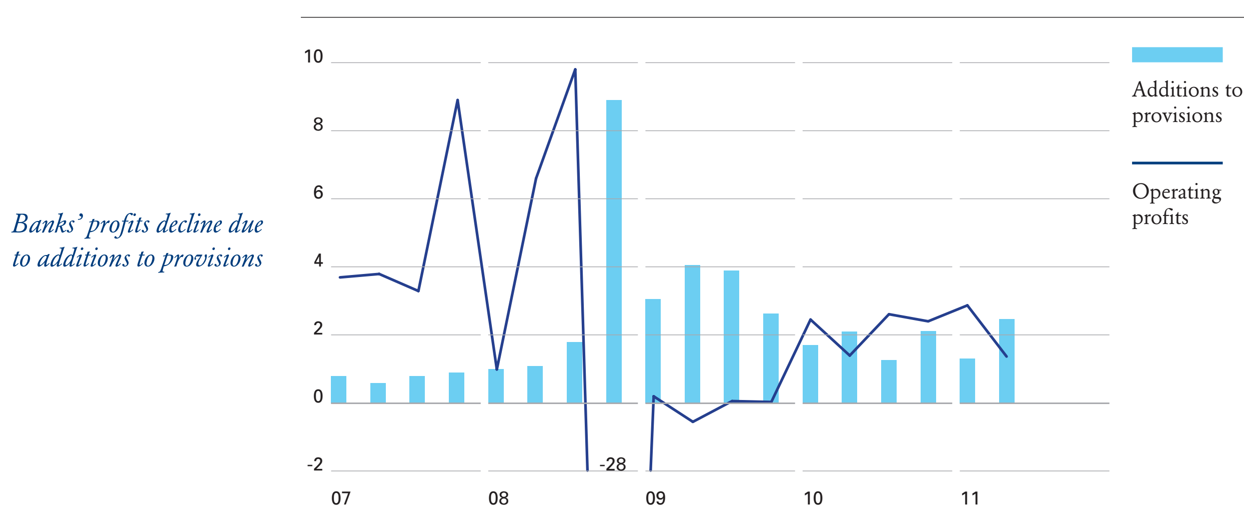
Reinforcement of buffers by banks is driven by pressure from market parties, but also by increased regulatory requirements. The new Basel III regulatory regime increases the resilience of banks by imposing higher demands on banks' capital buffers in terms of both size and quality. The migration to Basel III is a major focus in the supervision exercised by DNB. DNB has asked all banks to submit plans describing how they propose to meet the new regulatory requirements and how this will impact their strategy.

Although Basel III provides for a settling-in path, the Dutch banks aim to comply with the new requirements at an early stage. Since 2009, Dutch banks have made major steps forward to improve their capital positions. Chart 19 shows that their current solvency ratio stands out favourably on an international scale. Yet this by itself will not ensure resilience for the coming years. In the future, only the highest

Banks' profits decline due to additions to provisions

Chart 18 Profitability and provisions of Dutch banks

Quarterly figures in EUR billion, 2007 Q1 to 2011 Q2.



Operating results in the fourth quarter of 2008 were -28.3 billion.
Source: DNB.

quality capital instruments will count towards the main solvency requirement, the core tier 1 ratio. Banks will still have to make an effort to ensure that their capital meets this stricter quality requirements.

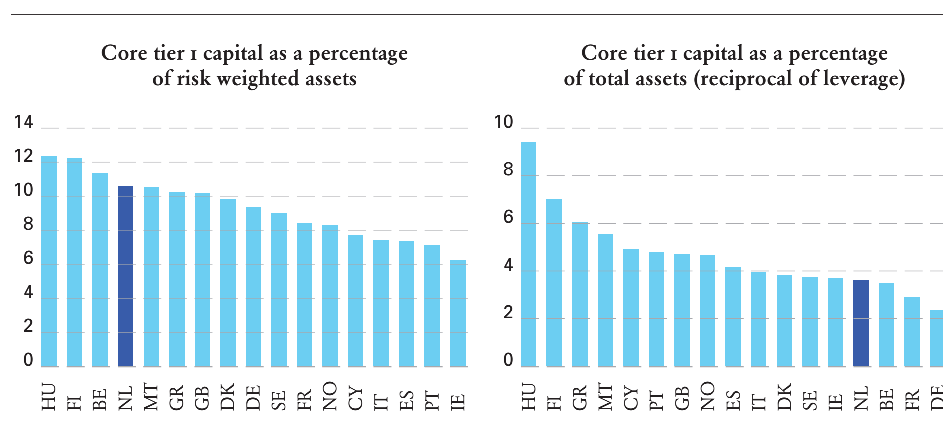
Many banks intend to grow towards compliance with the new requirements by retaining profits. Yet as the risk of a double dip or even a longer period of low growth increases, the question arises whether banks will be sufficiently profitable in coming years to reinforce their buffers in this way. If economic growth slows down, demand for financial services will fall off, trading and commission earnings may turn out lower than expected and default figures in the credit portfolio may rise. In addition, the debt crisis will push up funding costs and may cause losses on government bond holdings and on the lending portfolio in vulnerable countries.

The new regime will also impose requirements on the ratio between the (nonrisk-weighted) balance sheet total and the total minimum amount of capital, also known as leverage. The high solvency ratio of Dutch banks is partly due to their low average risk weighting. This is reflected in the Dutch banking community's relatively large balance sheet total, ranking their leverage among the highest in Europe (Chart 19).

Sector structure
Several market imperfections contribute to the large balance sheet total of Dutch banks. Treasury sponsoring of residential mortgage loans, relatively low associated risk weights and low-cost funding combine to give Dutch banks relatively large lending portfolios and relatively high funding needs. Outstanding residential mortgage loans of Dutch households are sizeable compared to those in other EU countries (Chapter 2). Total savings deposits with banks, however, are in line with the European average. Thus the difference between these deposits and loans to households and enterprises, known as the deposit funding gap, at some EUR 480 billion, is larger than elsewhere in Europe (Chart 20).

Owing to the deposit funding gap, banks have to rely on alternative funding sources. In the past, market financing used to be a relatively low-cost means to close the gap. Tax benefits on borrowed capital, short maturities limiting the risks for financiers and market parties' perceptions about governments' unwillingness to let banks fail combined to keep banks' funding costs low. However, short-term funding may dry up overnight, as came to light in 2008 when the interbank market stalled and again in the summer of 2011 when financing conditions deteriorated substantially. Meanwhile, investors' willingness to supply long-term financing, whose risks are less easy to anticipate, has also dwindled.

Chart 19 Capital position of large banks, by country
Per cent of risk-weighted assets (left) and per cent of total assets (right), end-2010.

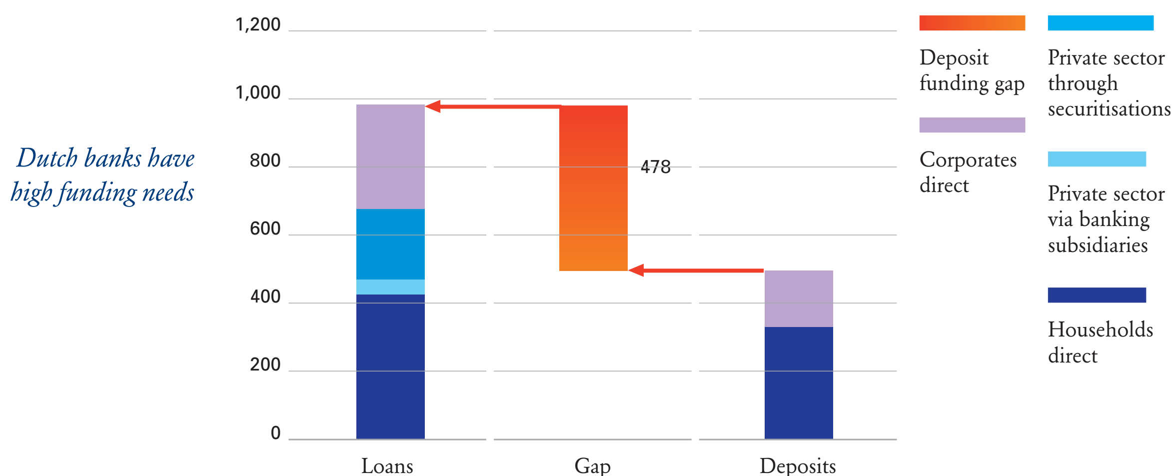


Source: EBA.

Dutch institutions' core tier 1 ratio is high, but so is their leverage

Chart 20 Dutch banks' deposit funding gap
EUR billion, 2011 Q2.

Dutch banks have high funding needs



Private sector through securitizations mainly consists of mortgages.
Source: DNB.

The new Basel III rules require the funding gap to be closed with longer-term funding. A trend that has lately come into its own is long-term financing through the issue of covered bonds (Chart 21). These are bonds collateralised with part of an institution's mortgage portfolio. Since the Dutch residential mortgage market is characterised by high loan-to-value ratios and a large share of interest-only mortgage loans, the nominal value of the collateral has to substantially higher than the amount raised by the bond. Covered bonds are regarded as a stable form of financing since investors run next to no risk of losing money.

However, their certainty is gained at the expense of other lenders, including depositors. The preferential encumbrance of the mortgage loans pledged as collateral means that in the event of bankruptcy, other lenders will be left with a smaller share of the assets and thus run a higher risk of sustaining a loss. Under a worst-case scenario, part of the loss will be borne by the deposit guarantee scheme. Given the current tensions in the finance markets it is understandable that banks should resort to covered finance. Yet moderation is called for, if banks are to safeguard their continued access to uncovered financing without governmental back-up.

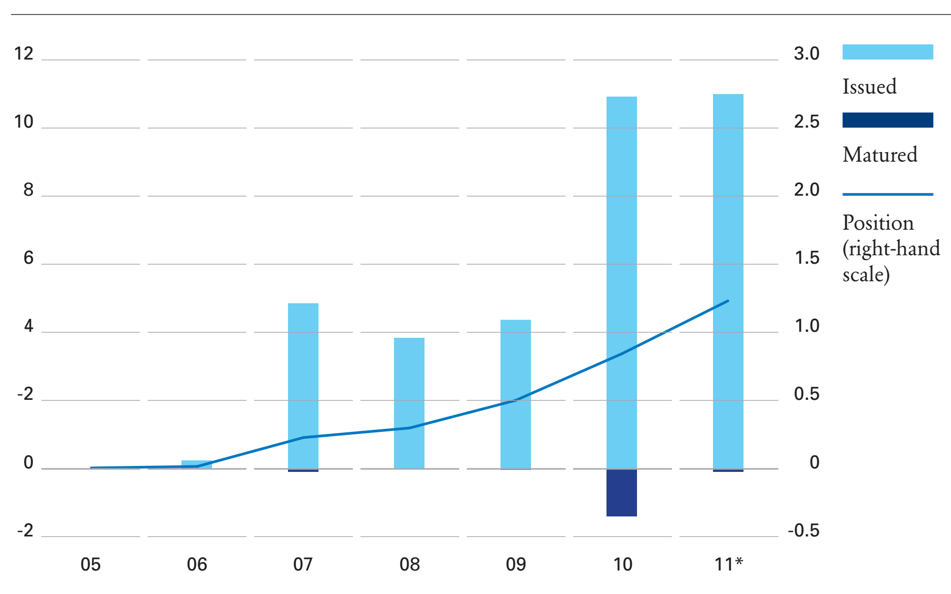
The structure of the Dutch banking sector makes banks' access to financing vulnerable to issues stemming from mortgage assets. A drop in house prices will compromise the issue of mortgage-covered bonds, while significant loan losses may lead to margin calls by the holders of such bonds. Increasing losses will make it more difficult and more expensive for banks to issue securitisations or to raise various types of less secured financing. In order to secure the confidence of financiers, institutions will have to either reinforce their buffers or gradually reduce their dependence on wholesale funding.

Insurers

Profitability
While banks anticipate new capital requirements under Basel III, European insurers are busily preparing for the new Solvency II regulatory framework. Many insurers attempt to strengthen their solvency positions and to lower their solvency

Chart 21 Covered bonds – Dutch banking sector

Development in EUR million, position as a percentage of total assets (right-hand scale).



* Data until 19 October 2011.
Source: Dealogic and DNB.

Covered bonds are on the rise

requirements through reducing risky assets or business. Also, like banks, many insurers try to meet the new requirements by retaining profits. Thus they run risks in the event of further unexpected drops in economic growth. The scenario of persistently low long-term interest rates is especially threatening: low rates will make it more difficult to earn assured returns on investments from policyholders. Under the current Solvency I regime, life insurers hold a buffer (called 'prudence') against this risk in their technical reserves. This buffer is eroded in times of low interest rates (Chart 22).

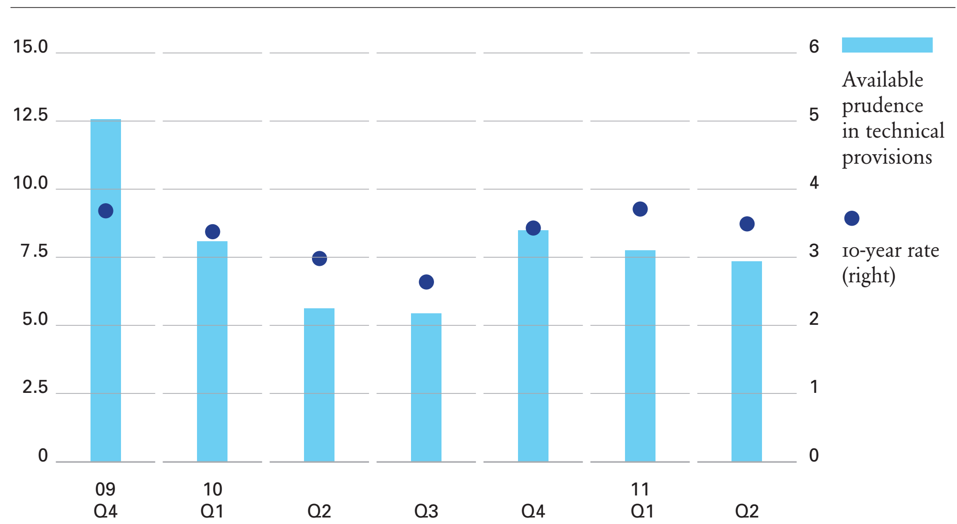
The low current rates and the steady decline of premium volumes in the Dutch life insurance industry put pressure on profitability and forces institutions to cut costs. Amid shrinking sales of life products, some life insurers have tried to protect sales volumes rather than profitability. Selling insurance below cost may work as a short-term survival tactic, but it carries the risk that high costs show up only much later in the profit and loss account. This is because the full cost of a life product becomes apparent only when the policy expires, some considerable time after the premiums have been paid. Several insurers recently announced their intention to publish marked-to-market valuations of new insurance business. This reduces the incentive to protect sales over profits and reinforces the mutual comparability of accounts, thus enhancing the insight of investors in the health of insurance companies. DNB favours this development, partly because it is in line with Solvency II.

Mis-selling

One major cause of the decline in insurers' sales is damaged consumer confidence. For some years insurers have received bad publicity amid accusations of high management costs, poor returns and incomplete information provision. Media coverage of disappointing compensation payouts and recent court rulings rekindled the debate about the products involved and the related indemnity schemes. It is in the insurance industry's interest that the uncertainty surrounding this dossier should be removed. Where the duty of care has been neglected in selling a unit-linked insurance policy, the insurer must actively commit itself to redressing this omission. In doing so, however, it must weigh the interests of all interested parties: both policyholders who need to be compensated and other policyholders.

Chart 22 Available buffer ('prudence') in technical provisions of life insurers, 10-year interest rate
EUR billion, interest rate in per cent (right-hand scale).

Low interest rates threaten the buffers of life insurers



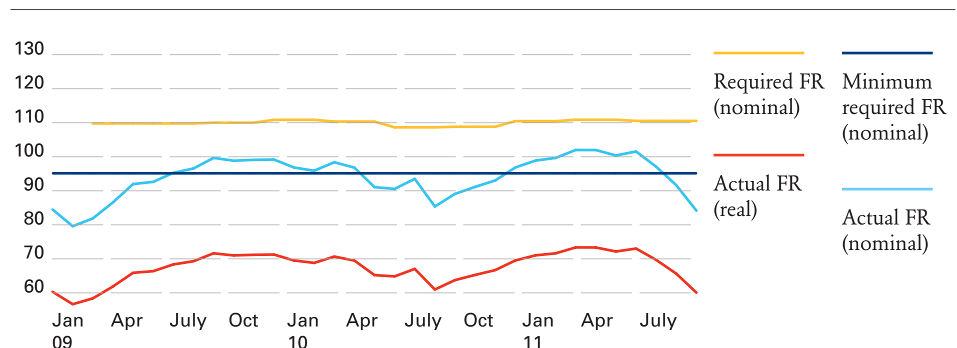
Available prudence in technical provisions = technical provisions at current balance sheet valuation – best estimate of technical provisions risk margin.
Source: DNB.

Pension funds

Operating results
The recent deteriorating economic conditions are also reflected in the financial position of pension funds. The decline of long interest rates and the poor performance of securities portfolios has pushed the average funding rate down to 95 per cent (Chart 24). This puts the sector as a whole below the minimum required funding ratio. This implies, even though there are large differences between individual funds, that many funds are unable to meet their estimated future obligations. To lift the entire sector back to the minimum required funding ratio, funds' financial position will have to improve by approximately EUR 90 billion. To restore its buffers to a sustainable level at the more stringent required funding ratio, it is estimated that the sector will need approximately EUR 200 billion.

Pension funds' funding ratio falls below the minimum requirement

Chart 24 Current and required funding ratio of Dutch pension funds
Per cent of technical provisions, January 2009 to September 2011.



FR = funding ratio. Real funding ratio assumes 2% inflation and 15 years average duration. Exact funding ratios are available only at quarterly intervals, intermediate figures are estimates.
Source: DNB.

Box 3: Insurers' investment behaviour

Insurers, especially life insurers, play an important role in the financial system as institutional investors. In 2010 Dutch insurers bought over EUR 7 billion worth of newly issued euro-denominated corporate bonds. Half of this amount was invested in bank bonds – unsurprisingly since banks account for about 70 per cent of total issues on the corporate bond market. These investments have made insurers sensitive to developments in the banking industry. In addition, insurers invested over EUR 1 billion in special purpose vehicles such as securitisations, and another EUR 1.7 billion in non-financial corporations.

Dutch insurers clearly exhibit home bias: about 20 per cent of total investments were in securities issued by Dutch corporations. Insurers show particular demand for long-term paper. It seems that insurers investment policies tend to draw the bottom line at three- to four-year maturities. This is in line with the average maturity of the entire corporate bond portfolio, 4.5 years.

Insurers will see the capital charge for corporate bonds (including bank bonds) change as a result of Solvency II. However, this does not look like making such bonds an unappealing investment category for insurers. Corporate bonds have since 2008 offered attractive additional returns over the risk-free rate. When the capital charge and the additional yield are offset against each other, the return on the capital charge held for corporate bonds turns out relatively high (Chart 23). Also, the maturity range of especially bank bonds is generally short compared to other types of bonds, so that the capital charge under Solvency II will be manageable.

Chart 23 Yield and capital charge of corporate bonds for insurers under Solvency II, by rating class

For 5–7-year bonds, start-July 2009–end-June 2011, in per cent.

Based on QIS5 specifications and assuming that policyholders receive the risk-free rate of return. Return on capital charge is adjusted for historical credit risk..
Source: Thomson Datastream and DNB.

Under a scenario with flagging growth and continued low interest rates pension funds will have great difficulty in restoring their funding ratios to safe levels under their own steam. Most funds are still recovering from the 2008 crisis and are now lagging behind their recovery plans (Chart 25). For some funds, additional recovery measures including, if needed, conditional cuts in pension rights and entitlements, appear inevitable. Pension funds are obliged by law to announce intended cuts well in advance. After all, it is important that pension funds tell their members in clear terms what pensions they can expect to receive and with what degree of uncertainty. In the event that significant improvement of a fund's financial position is not achieved, a final decision to cut pensions will have to be made one year after the announcement.

In view of the abrupt deterioration of market sentiments, DNB has decided, as it did last year, to offer pension funds the possibility to deviate in 2012 from the requirement that contributions must be in line with a path towards recovery. This measure is emphatically meant as to provide temporary relief. Selected individual funds are given until 2012 to present a balanced financial plan ensuring compliance with this requirement in future. Pension funds that have already had recourse to the temporary relief measure and those that have to apply a cut in 2012 are not eligible to use this facility.

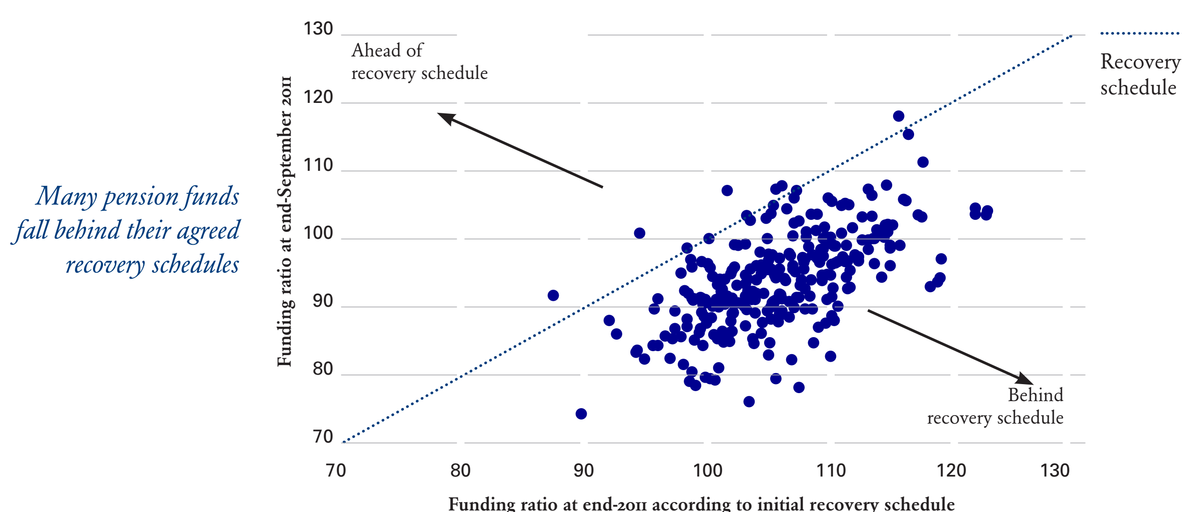
The importance of buffers

Most funds currently have little or no buffers left to absorb fresh losses. Reinforcement of the buffers is as important as ever, both for the members of pension funds and for financial stability. A pension system that holds significant buffers, with risks distributed across time and between generations, is able to reduce the effects of financial cycles. Without such buffers, contributions or pension benefits would need to be adjusted frequently. Thus buffers have a stabilising effect on income development and the economy as a whole. During the credit crisis, the buffers built

Many pension funds fall behind their agreed recovery schedules

Chart 25 Recovery plans of Dutch pension sector

Current funding ratios and target funding ratios in recovery plans, per cent of technical provisions.



Source: DNB.

For most funds, the funding ratio at end-2011 will be leading in the evaluation of the recovery plan. This plot shows the reported funding ratios of funds operating under a recovery plan, compared to the ratio that must be attained at end-2011 under the initial recovery plan. If funding ratios fail to recover significantly by end-2011, funds below the diagonal will be behind schedule while funds above the diagonal will be ahead of schedule.

into the current pension system showed their stabilising value. The most severe financial crisis since World War II could be absorbed while accumulated pension entitlements could be kept virtually unaffected. Had that be necessary, then the recession in the Netherlands would probably have been even deeper.

New pension contracts

Pension funds face the arrival of new agreements under the recent Pension Accord. Adequate buffers remain an important asset under the new Accord. The levelling reserve (*egalisatiereserve*) introduced by the new Accord should therefore, in DNB's opinion, be given a binding status and be sufficiently large.

The new Accord provides for *ex ante* testing whether a funds real-terms ambitions are sustainable. This is a good starting point. However, the sustainability test depends on assumptions, such as regarding future returns on assets. It creates an incentive to assume the highest possible returns. To counter this a robust supervisory framework is needed that imposes clear standards on the financial set-up and communications of pension funds. Another positive element in terms of sustainability is that the pensionable age has been linked to life expectancy. This will prevent the system from becoming unaffordable as a result of population ageing.

The migration from the current to the new system is complex and requires accuracy in the administration of pension entitlements. At this point, it is still unclear whether mass transfer of existing rights will be possible. The migration process will have to ensure careful treatment of property rights so as to avoid uncertainty and loss of confidence among members.

4 Institutional developments and infrastructure

In response to the credit crisis, policymakers are working to reinforce the international financial system. They are tightening buffer requirements and adjusting the system's institutional design. Like in other countries, systemically important institutions in the Netherlands will have to meet additional requirements. Also, the deposit guarantee scheme is to be revised. At the same time, market parties are responding to the tightening of the regulatory regime. They are hiving off activities to parties outside the scope of regular supervision – the so-called shadow banking system – and developing new financial products attuned to the regulatory regime.

Institutional developments

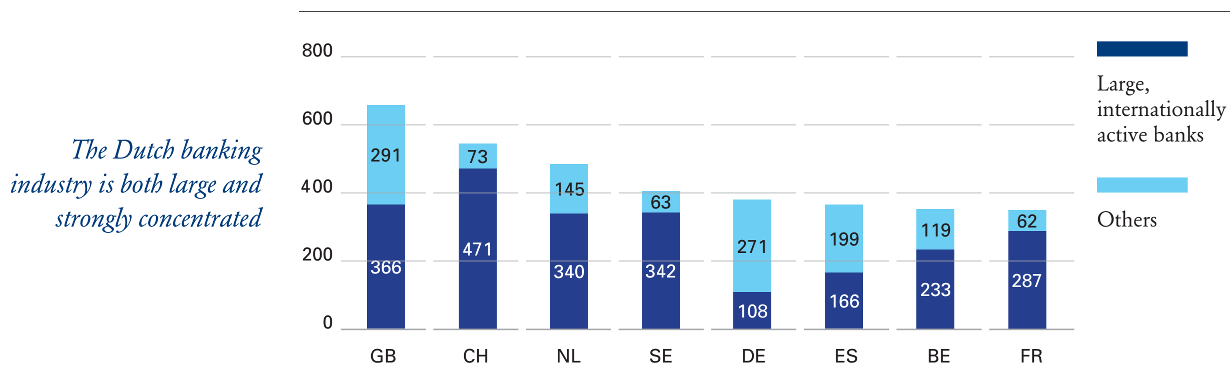
Additional requirements for Dutch systemically important banks
By definition, systemically important banks play a pivotal role in the financial system. A disorderly collapse of a systemically important bank carries unacceptably high costs for the real economy. Market parties hence assume that governments implicitly guarantee banks. Indeed, in the banking crisis of 2007-2009, governments across the world supported banks.

Implicit guarantees impart a perverse incentive to take risk and reinforce the interaction between the banking industry and public finances. The threat to the real economy and to public finances increase in proportion with the size and systemic importance of a bank. Therefore the Financial Stability Board (FSB), in cooperation with the Basel Committee on Banking Supervision (BStatistical Nethelands) has issued concrete proposals to reduce both the probability and the impact of the – unhoped-for – collapse of the largest, most systemically important banks in the world. National authorities are called upon to supplement the measures for this group of banks by measures for institutions that are relevant on a national scale. Switzerland, the United Kingdom, Sweden and Spain have already announced such measures, including a core tier 1 capital haircut of, usually, 3 per cent.

Given the structure of the Dutch banking sector, the Ministry of Finance and DNB also intend to impose strict requirements on national systemically important banks. The balance sheet total of the Dutch banking industry, expressed as a share of GDP, is among the largest in the world (Chart 26). In addition, the sector is highly concentrated: in the Netherlands a small group of systemically important banks accounts for the bulk of lending to the private sector and to households. The lion's share of Dutch savings is held on accounts with these banks, and they also handle most noncash payment processing.

For the risks of systemically important banks for the Netherlands to be reduced, they will have to improve their resilience. Depending on the degree of systemic relevance, the Ministry of Finance and DNB intend to increase the capital requirement for these banks by 1 to 3 per cent of risk-weighted assets. This extra buffer must consist of capital with the highest loss-absorbing capability – that is, core tier 1 – and includes the internationally agreed buffer. Intentions are to allow an adjustment period from 2016 to 2019 so that banks may achieve the reinforcement of their buffers by issuing new capital or by retaining profits. In addition, DNB is asking banks to develop

Chart 26 Concentration and size of banking sectors
Per cent of GDP, end-2010 figures.



Based on large banks that have participated in the EBA stress test. For Switzerland, the top two banks were selected.
Sources: Annual reports, EBA, ECB and Swiss National Bank.

The Dutch banking industry is both large and strongly concentrated

recovery plans describing measures they intend to take to allay suddenly emerging risks. This, too, will increase banks' resilience.

Strict requirements can never rule out the possibility that a bank may fail. In order to reduce banks' systemic importance, the means available to resolve a defaulting bank will also be improved. New statutory instruments to make this possible are currently in the making. A final bill has been submitted to the Lower House of the Parliament. In addition, DNB has created crisis management groups for internationally active banks to strengthen the coordination with foreign authorities. From next year, DNB will asses whether the systemic banks are sufficiently resolvable. This assessment will be based on plans which DNB will draw in consultation with banks. These plans will contain measures the Ministry of Finance or DNB may take to resolve a defaulting bank while salvaging vital functions and limiting contagion effects and risks to the taxpayer. Where necessary, DNB will take further measures to increase banks' resolvability. In this context one may think of limits on intragroup transactions and guarantees, reduction of the number of legal entities and possibly also of adjustments in the business model or structure of banks.

Revision of the deposit guarantee scheme
The deposit guarantee scheme (DGS) is important for the protection of financial stability. The DGS is designed to protect depositors and to safeguard public confidence in the financial system en thereby to prevent a bank run. During the credit crisis, the maximum cover in Europe was increased and harmonised, to EUR 100,000. In response to the crisis, the Ministry of Finance and DNB – the latter as the entity managing the DGS – are revising the Dutch system in two respects.

In the first place, and in anticipation of EU legislation, a fund will be created next year out of which deposits can be reimbursed under the Dutch DGS. Banks will fill the fund by paying risk-related contributions. The revised scheme is designed to serve several purposes. First, banks will make *ex ante* contributions to the DGS. Thus even banks that fail will contribute, unlike in the case of Icesave and DSB Bank. Second, the existence of a fund promotes the credibility of the DGS: it consists of visible savings. Third, the *ex ante* funding serves to spread out the costs of the DGS over time, so that banks need to pay less, if at all, the moment a peer institution fails. This makes the scheme less procyclical. Finally, the risk-related premium ensures that banks with higher risk appetites contribute more to the scheme, reducing the perverse competitive edge risky banks derive from the DGS by attracting savers' deposits.

The current proposals provide for quarterly DGS contributions by the banks from July 2012, consisting of a basic sum of 2.5 basis points (0.025 per cent) of all guaranteed deposits, topped up by a premium varying from 0 to 100 per cent of the basic contribution, depending on a bank's risk class. The risk classification of a bank is to be based on three indicators: risk weighting of the institution's assets, its degree of leverage and its liquidity. Thus, over a period of ten years, a fund is created containing about 1 per cent of the deposits guaranteed under the DGS (some EUR 4 billion). The contributions will be transferred to a not-for-profit entity, the Stichting Depositogarantiefonds. The Stichting will pursue a conservative investment policy, carried out by DNB.

The other major change is that the reimbursement date is to be brought forward. Under EU legislation, the DGS must be able to reimburse depositors within twenty working days. Drawing on its experience in the Icesave and DSB bankruptcies, DNB envisions a disbursement mechanism that is as automatic as possible. In future, a defaulting bank will transfer a data file that DNB can use to quickly determine DGS claims. Next, DNB will make the countervalue available to the defaulting bank's accountholders, using an Internet application to transfer their balance to a bank of their choice. To make this possible, DNB and the Dutch banks are currently modifying their computer systems and internal procedures. DNB will proceed to test these systems as soon as possible. Under the new, more efficient reimbursement mechanism, DGS-insured depositors may rest assured they will quickly regain access to their money.

Shadow banks

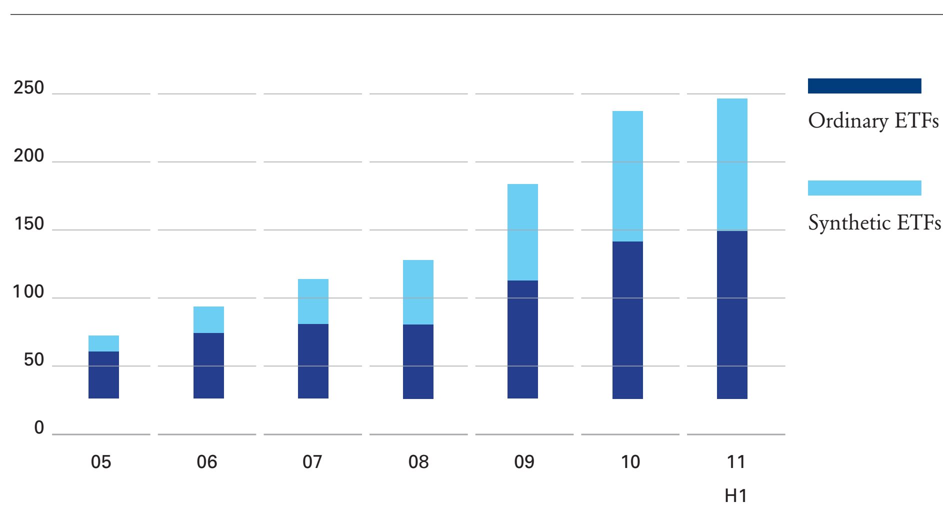
During the crisis it emerged that risks also materialised in the so-called shadow banking system: at institutions that engage in banking-like activities but are not subject to prudential supervision, at least not of the kind exercised over regular financial institutions. This also means that such shadow banks do not enjoy the protection of similar safety nets (such as the DGS or access to central bank liquidity), whereas they do expose the financial system to similar risks, such as the possibility of a bank run, excessive debt accumulation and interwovenness with the regular banking system. The prospective tightening of the rules for supervised institutions, moreover, creates the risk that activities may move from the regular to the shadow banking system. It is therefore imperative to gain more insight into the shadow banking system. Supervisors are working on an international scale to chart the network of financial institutions and bring to light the interlinking between supervised institutions and unsupervised shadow entities.

Financial innovation

The development of new financial products and constructs continues. Exchange Traded Funds or ETFs are in especially high demand. These are investment funds that follow an index and whose units or shares are traded on a stock exchange or other regulated trading platform. The growth of the global ETF sector has been impressive (Chart 27) although volumes come to only a fraction of the total assets managed by investment funds. Apart from ETFs that follow stock indices, a broad spectrum of ETFs has sprung up that mimic commodities, hedge funds, covered bonds or high-yield bonds. International institutions Financial Stability Board and International Monetary Fund have been warning against the risk ETFs pose to investors and to financial stability.

The main cause for concern is the funds' increasing complexity and the inherent risks. The first ETFs used to be relatively straightforward products that mirrored an index by holding the right mix of underlying securities. These days, however, many

Chart 27 Annual growth of assets managed by ETFs
EUR billion.



Source: ICI and BlackRock.

The global ETF sector grows rapidly

providers lend out the underlying assets to generate additional returns. Moreover, almost half of European ETFs follow indices through the use of derivatives (so-termed synthetic ETFs), thereby generating counterparty risk. Investors in ETFs, including pension funds and insurers, must be familiar with the products they invest in. This also means that the providers must be transparent about how an index is mirrored, how the collateral is managed and whether they lend out assets.

ETFs may harm financial stability because they strengthen the correlation between market parties, increase market volatility, reduce the liquidity in the markets they mirror and in some cases use leveraged financing. Synthetic ETFs carry added risks because they are used by the issuing banks to spruce up their apparent liquidity position. Banks receive liquid assets from investors but may pledge illiquid assets as collateral for derivatives transactions while using the liquid assets for other purposes. However, investors may withdraw their liquidities at all times. Such constructions that ostensibly improve a bank's liquidity position are therefore undesirable.

A similar risk is created by the rise of collateral swaps. In such swaps two parties temporary exchange assets to provide one of the them with collateral fit to be used in another transaction with a third party. Banks often swap illiquid assets against assets that may be pledged as collateral with central banks. This way they obtain additional liquidity. The benefit for the counterparties, usually institutional investors such as insurers or pension funds, is the small compensation they receive for their cooperation.

The collateral swap market is highly intransparent and again there is the risk that banks may seem to be sufficiently liquid whereas in fact the liquid assets belong to a counterparty that may withdraw them at any moment. The swaps do not have the effect of improving the liquidity buffers of the system as a whole. They just serve to increase the interwoveness of the financial sector.