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De Nederlandsche Bank

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Recent developments

Economic developments and outlook for the Netherlands

In 2010, the Dutch economy is expected to grow by 1.2%. Due to the European debt crisis, the assumptions underlying the forecasts for the coming years are this time surrounded by unusually large uncertainties. If the Netherlands and other euro countries reduce considerably their government deficits within a short time frame, Dutch growth will probably slowly increase to 1.3% in 2011 and to 1.7% in 2012, and foundations will be laid for a sustainable recovery. In the adverse event that the euro countries do not manage to sort out their public finances, however, chances are that the Dutch economy will only show little growth in the longer run.

The Dutch economic recovery

In the first quarter of 2010, Dutch gross domestic product (GDP) increased by 0.2%. Following three consecutive quarters of positive growth, the Netherlands are now climbing out of the deep economic trough of the credit crisis, after a more than 5% fall in the second half of 2008 and the first half of 2009. But the average growth of 0.4% during this recovery phase does not point to an especially strong recovery.

Export recovery through more favourable international environment

As usual, exports in this first phase of cyclical recovery provide the most important growth contribution. Since the end of the Dutch recession in mid-2009, Dutch

exports have grown by nearly 9%. Re-exports increased very strongly, but domestically produced exports also developed favourably. Dutch export profited from the recovery that continued in various parts of the world.

Especially in the Asian region economic developments so far have been favourable. As a result of the very strong growth in China, which, considering its credit-driven background, seems unsustainable, the activity in emerging Asia in the first quarter increased by 2.3%. For as long as it lasts, that also gives a strong boost to the developed countries in this region, as witness the 1.2% growth in Japan. In the developed world, the strength of the recovery clearly shows a mixed picture (Chart 1). Whereas in the United States the favourable line of the most recent quarters of 2009 is continuing with a growth of 0.8%, growth in the euro area is stalling at 0.2% in the first quarter of 2010 after a lacklustre second half of 2009. The greatest source of concern is Greece, where GDP in the first quarter contracts by 0.8%, while Spain with a slight growth of 0.1% after eight quarters of contraction is finally clambering out of recession. In other euro countries, such as Germany (0.2%), France (0.1%) and Belgium (0.1%), recovery is still slow. Recovery in the UK (0.2%) is also sluggish. If growth in these neighbouring countries had been higher, the Dutch exports recovery would have been even far more dynamic, as for Dutch exporters developments in the neighbouring countries are the most important.

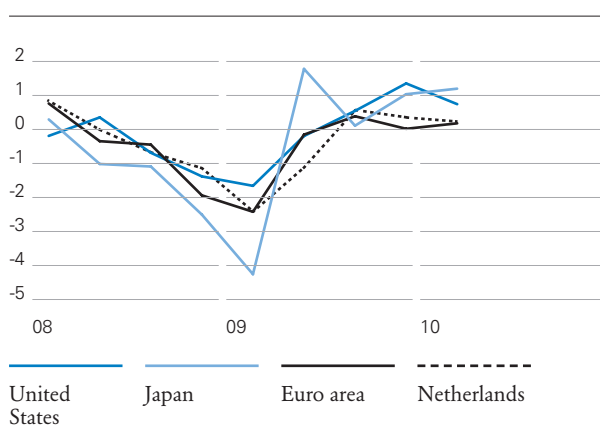
As a result of the export recovery, Dutch manufacturing in the first quarter of 2010 is 5% higher than a year ago. This means manufacturing is leading the recovery, because production in the entire Dutch economy in the first quarter is only slightly higher (0.1%) than last year's level. Since December of last year producer confidence has steadily improved and, despite the renewed financial turmoil, exceeded zero in May, for the first time since August 2008. In line with the more favourable expectations in the Dutch private sector, inventories were replenished in the first quarter, following three quarters of contraction. In addition, there is now also an end to the deep downfall of corporate investment, by almost 20% in 2009.

Reluctance among Dutch households

Dutch households are still pessimistic. Consumer confidence is far below zero and in recent months has not shown any sign of improvement. The fact that the 1.1% growth in private consumer spending in the first quarter of 2010 was nevertheless the largest growth for more

Chart 1 Economic growth

Quarter-on-quarter change



Source: Thomson Financial.

than five years can be attributed to temporary factors, such as the higher natural gas consumption amid a severe winter and high car sales spurred on by attractive rebates. The higher car sales do not add much to Dutch GDP, however, as cars are mainly imported from other euro countries. In combination with the inventory replenishments, this is one of the most important reasons for the very high import growth (4.9%) in the first quarter.

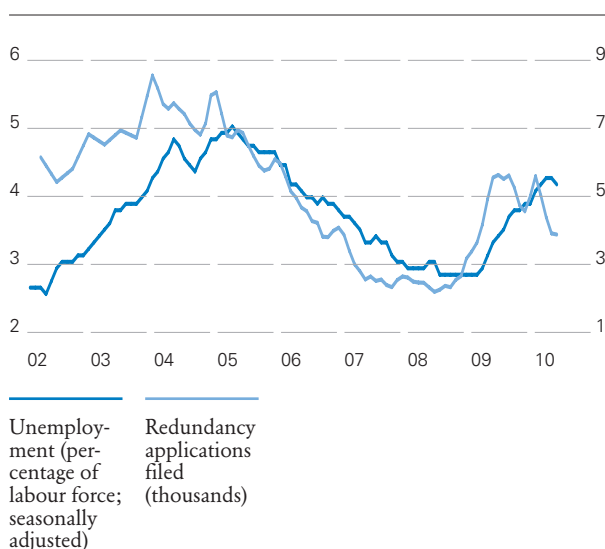
In other respects, Dutch households show restrained purchasing behaviour, which is understandable given wage and employment developments. In six months' time, contractual wage growth, for example, decreased 1 percentage point to 1.3% in April. Most wage increases in new collective employment contracts are even lower. In addition, the number of jobs in the first quarter was 0.5% lower than in the previous quarter while unemployment rose to 4.0%, up from 3.9% in the fourth quarter.

That the unemployed labour force – a measure that only includes people who work 12 hours or more a week or are looking for such jobs – decreased slightly, from 5.8% in February to 5.6% in March, does not point to the anticipated break in the trend, but is caused by the fact that more people are withdrawing from the labour market. Still, there are signs that the damage to the labour market could be constrained, in contrast to previous

expectations. Unemployment – in accordance with the European harmonised definition, in which all workers and job seekers are counted – is still below last cycle's peak, while the number of dismissal permits issued is already going down (Chart 2). In addition, the number of market sector vacancies in has stabilised and the number of temporary employment hours is practically equal to last year's. The fact that unemployment is still relatively low has to do with the very tight labour market of some years ago. In anticipation of better times, employers do not want to just dismiss their hard-won staff. At the same time, more than in previous cycles, they reduced outsourcing to self-employed persons. Consequently, that category of workers has made fewer chargeable hours.

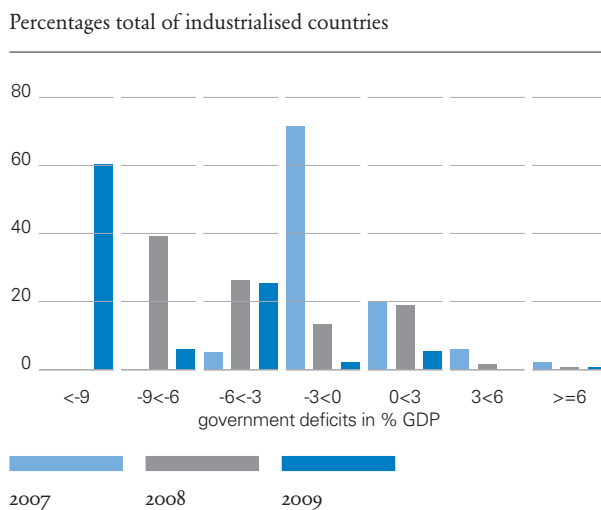
The Dutch housing market is also at a turning point. In the first quarter, house prices stabilized and the number of dwellings sold increased. Nevertheless, the stock of unsold dwellings is still large and the number of days a house is for sale has increased. The adjustment process of supply and demand evolves around a reduction of the number of new developments started. This is evident from the decline in housing investment over 2009 by 17%. However, the further drop in housing investment in the first quarter, by almost 6% compared to the previous quarter, is mainly caused by the climatological impact of the large number of frost days.

Chart 2 Unemployment and redundancy applications



Source: Eurostat and UWV (social security administrative body).
Notes: Employment according to ILO definition; redundancy applications three-month averages.

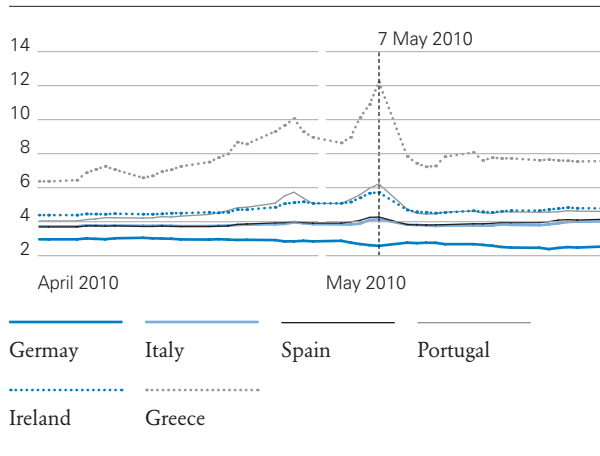
Chart 3 Strongly increased government deficits in the industrialised world



Source: IMF.
Notes: Share based on GDP on PPP basis.

Chart 4 Interest rates on euro area government bonds

Percentages; daily figures



Source: Thomson Financial.
Notes: ten-year government bonds.

New phase in the credit crisis with turbulence in European public finances

Now that the credit crisis has reached a new phase, with strong turbulence emanating from European public finances, the incipient economic recovery is surrounded by even larger uncertainties than in the past. The euro area is not the only region facing a difficult fiscal position. Unlike in the emerging economies, government deficits have strongly deteriorated across the entire developed world. Just before the credit crisis in 2007, 95% of developed countries had a deficit of less than 3%; in 2009, 60% had a deficit exceeding 9% (Chart 3). For the euro area as a whole, the deficit of 6.3% in 2009 is below that of the United Kingdom (11.5%) or the United States (12.5%). Still, the fact that the debt crisis nevertheless broke out in the euro area, is mainly due to the strongly varying solidity of public finances and the weak growth prospects from an international perspective.

Gradually, moreover the financial market parties have come to reassess their previous beliefs that the financial soundness of government paper of all European governments is practically the same. For example, in the wake of German interest rates, Dutch interest rates have decreased to very low levels. Present market confidence in the sustainability of Dutch public finances is no guarantee for the future and will have to be confirmed through a credible consolidation strategy. The risks become manifest in recent developments in

other euro countries, such as Spain, Portugal, Ireland and Greece, where deficits have sharply increased and economic prospects are relatively bleak. Following the outbreak of the credit crisis, the long interest rates of those countries had already risen compared to the German interest rate under the influence of market perception. That trend was reinforced in April and May (Chart 4), in part by investors' sharply increasing risk aversion and by the 'flight to quality' into German – and Dutch – bonds.

It also needs to be taken into account that the credit crisis in the euro area hit relatively hard, because of the strong housing market adjustment in several countries. Economic activity in Spain, Greece, Italy and Ireland, for instance, decreases in two consecutive years, while contraction in the rest of the developed world is limited to one year. The burden of an inflexible labour market and a weak competitive position was considerably increased. Especially the South-European countries priced themselves out of the market in the past decade with high salary increases, and through the composition of their export range are experiencing heavy competition from low wage countries.

Crisis measures taken by European policymakers

The increasing distrust in European public finances instigated an acute debt crisis when Greek interest rates in April soared and markets abandoned their confidence in Greek government bonds. In response, European government leaders, in consultation with the IMF, provided financing support to Greece (See the article "Financial Stability"). When on Friday 7 May, the confidence crisis nevertheless threatened to spill over to other countries, they presented a comprehensive support package for the distressed euro countries in the weekend that followed. The ECB then also took several measures, the most remarkable being a temporary purchasing programme for public and private debt paper. With this Securities Markets Programme the ECB aims at non-functioning segments of the bond market that threatened to disturb the monetary transmission. After all, with its monetary policy the ECB steers the short money market interest rate, which in turn must have a carry-on effect in the longer interest rates on, for example, government bonds, on which, in turn, many private contracts are based. As that transmission was undermined in several markets through a lack of confidence, the ECB intervened. The purchasing programme is not inflationary, because the money which the ECB brings into circulation through its purchases is immediately absorbed from the market again and kept

on accounts at the ECB. The purchasing programme of course does not offer a solution for the underlying fiscal problems. Governments will have to get their finances back in order again at a faster pace and restore the credibility of the Growth and Stability Pact.

Recovery surrounded by larger uncertainties

As a consequence of the heavy financial-economic shocks during the credit crisis, cyclical recovery in the developed world will be slower than after previous downturns. Domestic demand is likely to remain under pressure for a long time, in particular in the United States and the euro area. For instance, households will have to recover from the loss due to lower housing and equity prices at a time when the labour market is still very weak. Under these circumstances it is understandable that consumer confidence in many countries is at a level that is normally only observed during recessions and the inclination to save is stronger than before the credit crisis.

With the turmoil surrounding European public finances, the credit crisis has now entered a new phase and uncertainties have increased even further. Financial market parties have become even gloomier about the prospects for the world economy, as witness the lower stock prices and the lower dollar oil prices. In addition, since the outbreak of the European debt crisis, the euro has depreciated to its lowest level since 2004. Due to the large structural problems in various euro countries, chances are that recovery in the euro area will lag behind that in the United States. Against this backdrop, economic prospects for the Netherlands in 2010-2012 have also become considerably more uncertain.

Estimate excluding consolidation measures

All central banks in the euro area use the same key assumptions in drawing up the economic outlook for their own countries. These assumptions are shown in Table 1 below. In order to guarantee underlying consistency it has been agreed that in the estimate for their own economies, central banks only take into account government measures that have already been adopted by parliament. The estimate is designed in such a way that intended policies are not considered. This means that for the Netherlands DNB has not included additional deficit-reducing policy measures for 2011 and 2012, even though all political parties had included plans to that effect in their election programmes. Especially in the light of the European debt crisis, this path excluding consolidation measures is not very likely to be pursued.

In the estimate excluding consolidation measures the Dutch recovery will gradually strengthen (Table 2). Dutch growth increases from 1.2% in 2010 to 1.9% in 2011 and 2.3% in 2012. In 2010 growth is mainly export-driven. In 2011 and 2012, however, export growth will go down compared to 2010, as worldwide growth flattens. On the other hand, in those years domestic demand will lend stronger support to growth again. Following a decline by 2.5% in 2009, Dutch consumption growth accelerates to 1.1% in 2010 and to 2.0% in 2012, in line with the gradually increasing growth of real disposable income. Business investment also delivers a positive contribution to growth again once recovery gains a more solid basis, while housing investment will profit from the stabilising housing market and resurging real income growth.

Table 1 International assumptions

Percentage change, unless stated otherwise

	2009	2010	2011	2012
Relevant world trade volume ¹	-11.1	6.5	4.3	5.5
US GDP, volume	-2.4	3.1	2.2	2.8
Euro area GDP, volume	-4.0	0.7 – 1.3	0.2 – 2.2	–
Emerging economies GDP, volume	1.6	6.1	5.4	6.0
Short interest rates in the euro area (level, %)	1.1	0.8	1.1	1.7
Long interest rates in the euro area (level, %)	3.7	3.2	3.6	4.0
Euro exchange rate (level, USD)	1.39	1.29	1.26	1.26
Oil price (level, USD per barrel UK Brent)	62.4	79.5	83.7	86.3
Commodity prices excluding energy, in USD	-21.9	16.5	1.5	5.4

¹ This concerns the world trade volume of goods and services relevant to the Netherlands.

Table 2 Key figures for the Netherlands in estimate without consolidation measures

Percentage change, unless stated otherwise

	2009	2010	2011	2012
Volume of spending and production				
Private consumption	-2.5	1.1	1.9	2.0
Gross corporate investment (excluding houses)	-19.4	-5.9	4.9	6.0
Goods and services export	-8.2	8.5	4.4	5.6
Goods and services import	-8.7	8.1	4.4	6.0
Gross domestic product	-4.0	1.2	1.9	2.3
Wages and prices				
Contract wages per employee at enterprises	2.8	1.4	1.2	1.4
Remuneration per employee at enterprises	1.8	2.2	2.3	1.7
Harmonised consumer price index	1.0	1.0	1.6	1.5
Labour market				
Employment (persons, growth)	-0.9	-1.2	0.3	1.1
Labour supply (persons, growth)	-0.2	-0.2	0.5	0.8
Unemployment (persons, thousands)	304	386	409	390
Unemployment (level, %)	3.5	4.4	4.6	4.4
Public sector				
EMU general government balance (level, % GDP)	-5.3	-6.4	-5.4	-5.0
Gross debt (level, year-end, % GDP)	60.9	66.6	69.1	72.0

Inflationary pressure from the external environment is higher because of the lower euro. At the same time, inflationary tensions within the Netherlands will only increase very moderately as a result of the gradual recovery. Growth of unit labour costs remains limited because of the wage moderation in combination with strongly increasing productivity. Inflation of non-energy goods will rise from approximately 1.1% in 2010 and 2011 to 1.4% in 2012. All in all, (European harmonised) inflation in 2010 will amount to 1.0%, to be followed by a further increase to slightly above 1.5% in 2011 and 2012 due to higher energy prices.

In the scenario without policy effects, Dutch employment in the second half of 2011 will peak at 4.6% and will gradually go down after that. In 2010, companies will still have sufficient staff to meet demands. Only as of 2011 will they be inclined again to start hiring new employees. Meanwhile, labour supply will go up again in 2011 and 2012, following a decline in the crisis years. Many students who in 2009-2010 opted for extending their studies will start looking for jobs in 2011-2012.

Without additional deficit-reducing measures, Dutch government deficit will remain at too high a level.¹ Although the gradual economic recovery will lower the deficit by 1.2 percentage point of GDP between 2010 and 2012, at 5.0% of GDP in 2012 the deficit remains far above the pre-crisis level. The delayed response from the labour market means that public finances will only recover slowly. Income from labour taxes will continue to go down somewhat, but especially unemployment benefit expenses will be going up. As companies on top of that are allowed to offset their losses from previous years, income from corporation taxes until 2012 will remain low, despite increasing profits. Apart from the aftermath of the crisis, demographic factors also put pressure on public finances. In the coming years a relatively large section of the population will reach the pensionable age, pushing up state pension expenditures.

Estimate including consolidation measures

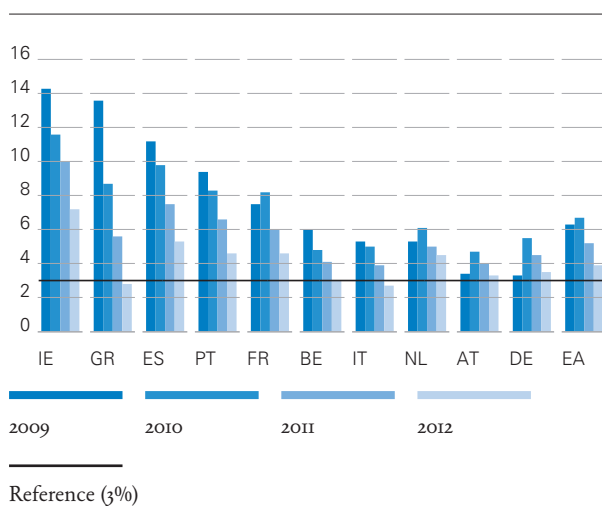
Sound public finances in the Netherlands and elsewhere in the euro area are key to a sustainable recovery. In accordance with the excessive deficit procedure (EDP) within the context of the Growth and Stability Pact, most euro countries are required to have reduced their deficits to a maximum of 3% by 2013. In order to assess the possible economic consequences of consolidation for the Netherlands in 2011 and 2012, the effects have been calculated of a scenario in which the Dutch deficit is reduced to 4.0% in 2012. For this calculation, it is assumed that other countries in the euro area also get their public finances under control. The assumed additional consolidation measures in the Netherlands and abroad will not yet impact Dutch growth in 2010.

As of 2011, the Netherlands will curb public sector consumption and benefits and also gradually cut the number of civil servants. At the same time, both direct and indirect taxes will increase. In comparison with previous consolidations in the Netherlands over the last three decades, the fiscal measures assumed here are not exceptionally large. The collective measures amount to approximately 1.5% of GDP (necessary for the required deficit reduction from 5.0% to 4.0% of GDP, because the measures hold back GDP growth). The last three decades several consolidations of a comparable size were undertaken.

For the euro area it is assumed that the countries stick to the consolidation path leading to the EDP

Chart 5 Comparison of EU consolidations

Percentage of GDP



Source: European Commission (2010).

objectives.² Chart 5 shows for each country the deficit in 2009 and the targeted deficits for 2010, 2011 and 2012 within the EDP framework. The United States and the United Kingdom will also significantly reduce their deficits. The international impact is clear from the development of global trade relevant for the Netherlands. At 2.7% in 2011 and 3.8% in 2012, world trade growth will be 1.5 percentage point lower than in the scenario without consolidation measures, reflecting reduced foreign demand for Dutch products as a result of the consolidation.

Table 3 gives an overview of the consolidation. Consolidations in the Netherlands and abroad limit Dutch growth, cumulatively with 1.2 percentage points, in the years 2011-2012. About half of this effect is due to foreign consolidations, materializing in lower export growth, and half to domestic consolidation. Inflation, as in the scenario without consolidations, remains approximately 1.5% in 2011 and 2012. Domestic demand does develop more moderately, but higher VAT will increase inflation. Unemployment increases even more in 2012, whereas in the scenario without consolidation it is already declining.

Chart 6 shows the development of the deficits with and without consolidation compared to two previous episodes of large deficits, the one in the early eighties and the aftermath of the dot com bubble at the start of the new millennium. In this Chart, t represents the year of the largest deficit (1982 for the eighties, 2003 for the start of the millennium and 2009 for the current crisis). The estimate without consolidation measures leads to a scenario resembling the path of the beginning of the eighties, in which the deficit remains at high levels for a

Chart 6 Deficits from a historical perspective

Percentage of GDP; year t is the trough

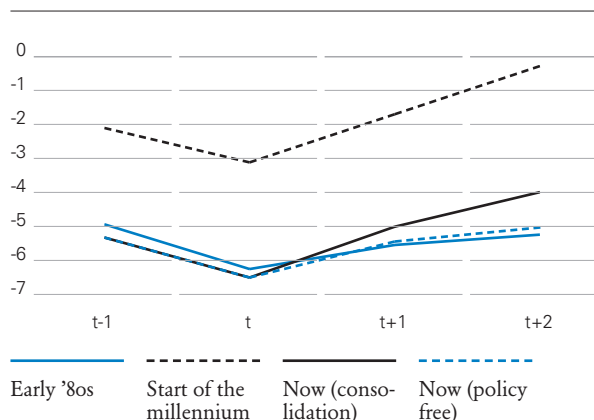


Table 3 Estimate with international consolidation

Percentage change, unless stated otherwise

	2011	2012
Gross domestic product	1.3	1.7
Relevant world trade volume	2.7	3.8
Unemployment (level, %)	4.7	4.8
EMU general government balance (level, % GDP)	-5.0	-4.0
Harmonised consumer price index	1.6	1.4

long time. In the case of consolidation measures on the other hand a pattern similar to that of the beginning of this millennium will develop. At the time the economic headwind blew a hole in the budget, but quickly implemented cuts meant that the hole could soon be closed again.

Risks in case consolidation measures are put off

If consolidation is not implemented or develops too slowly, the basis for recovery will remain very weak. If consumer and producer confidence in the developed world remains weak as a consequence, this could lead to lower private consumption and industrial investment than stated in the assumptions of Table 1. Households and companies are aware that changes are unavoidable to get public finances back on track. As long as consolidation is not forthcoming, they will keep additional financial reserves in the knowledge that at some point they will be confronted with cutbacks. There is also the real possibility that long-term interest rates will reach a higher level in the short term than now assumed in Table 1, because the risk premiums on government bonds will increase. That is all the more true when the real consolidation measures do not live up to expectations in the financial markets.

Table 4 shows the possible impact on the Dutch economy if no action is taken. In this scenario, long-term interest rates between 2010 and 2012 in the euro area, the United States and the United Kingdom in total will increase 1 percentage point. The decline in consumer and producer confidence will in all countries result in an increase in the savings ratio and levelling of industrial investment growth. Besides, stock markets will fall. As a consequence, in 2011 and 2012

world trade growth will decidedly slow down, whereas domestic demand in the Netherlands will recover little. Growth of GDP in these years will amount to 1.3% and 1.5%. Even more important are the consequences of inaction for the years beyond the scope of the estimate. A government that is hesitant in reducing the deficit will have fewer buffers at its disposal to cushion blows in the future. This undermines confidence in the economy's resilience. Additionally, the long interest rates remain high for a prolonged period, because of demands that governments place on the capital market. Besides, insufficient budget discipline in Europe will undermine the workings of EMU.

In an extreme scenario this could even lead to renewed large financial turbulence. If market parties en masse unload government paper of several European countries, the effects will be comparable to those following the Lehman Brothers bankruptcy. The subsequent shock in the real economy is still fresh in our memory. For instance, Dutch financial institutions and pension funds have exposures to government paper of various South-European countries (See the article 'Recent developments in supervision'). If consolidation in these countries fails to materialize, those institutions will see their risk of losses rise.

Growth risks from the financial sector

The uncertainties for the Dutch economy not only relate to willingness to implement fiscal consolidation, but also to developments in the financial sector. Bank credit to non-financial corporations forms a vital pivot between the financial sector and the real economy. The sharp growth drop started in 2008 ended in the summer of 2009 (Chart 7). Since that time, credit growth

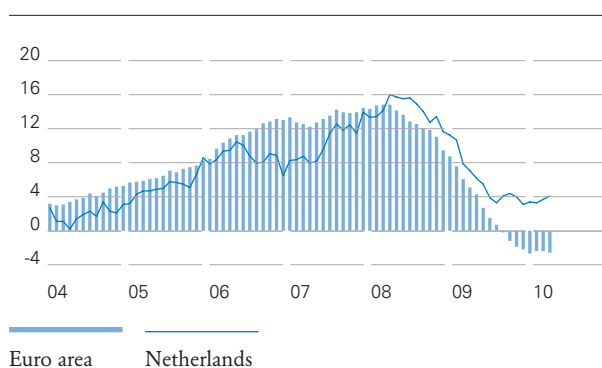
Table 4 Risks without consolidation

Percentage change, unless stated otherwise

	2011	2012
Gross domestic product	1.3	1.5
Volume-relevant world trade	2.5	3.6
Unemployment (level, %)	4.7	4.8
EMU general government balance (level, % GDP)	-5.6	-5.6
Harmonised consumer price index	1.6	1.4

Chart 7 Business credit growth in the Netherlands and the euro area

Annual percentage changes



Source: DNB and Thomson Financial.

has been fluctuating around 4% compared to the previous year, which is considerably higher than during the previous recession. From March on April, outstanding credit to non-financial corporations even increased by 1%. Given the much stronger downturn, business credit growth remains in good shape, also compared to the euro area. There is no clear evidence that credit developments are hampering growth.

Still, credit conditions on business lending have been tightened, as appears, for instance, from the Bank Lending Survey (BLS). 33% of Dutch banks interviewed responded that they had further tightened credit conditions in the first quarter of the year. Above all, this tightening related to increased risks in combination with the deteriorated cycle. To a lesser extent, banks however also indicate that the tightening has to do with higher cost of funds and stricter balance sheet restraints. Although the percentage of banks indicating they will sharpen conditions has dropped since the beginning of 2009, there are still no signs of relaxation. The risk is that supply factors become an impediment when the economy continues to pick up and credit demand will go up again.

Although, compared with the situation six months ago, the Dutch financial sector is clearly in better shape (See the article 'Recent developments in the financial sector'); it is still in a restructuring phase. New measures aimed at the financial sector, such as the package of capital-strengthening measures announced by the Basel Committee for Banking Supervisors, also play a role in this respect. At the moment, the impact of this package on the banking sector is being analysed. Timing and manner of introduction of these measures are paramount, lest these measures harm economic recovery.

- 1 The Spring Memorandum of CBS (Statistics Netherlands) appeared after finalisation of the estimate. It projected a budget deficit for the Netherlands in 2010 of 6.6% of GDP.
- 2 The German economy measures totalling EUR 80 billion, announced on 7 June 2010, have not been included in this overview. This package is a stronger consolidation than required of Germany from a purely European agreements perspective

Latest developments in the financial sector

The Dutch banking sector remains under severe pressure. The movement in the leverage ratio – measured as the equity capital in relation to the balance sheet total – is less favourable than in comparable European banks.

The sale of new policies in the life insurance sector continues to decline steeply, one reason being the growing popularity of the ‘banksparen’ scheme for tax-efficient savings. Modification of the business model looks inevitable for this sector.

The funding ratio of pension funds came under serious stress again in the second quarter, principally because of the decline in the long-term interest rate, which caused an increase in pension fund liabilities.

General

The authorities took drastic steps in the second quarter to secure financial stability (see also the chapter on Financial Stability). These measures were necessary because the Greek debt crisis gave rise to widespread contagion in the financial system, which also affected the Netherlands. During the period from mid April to 10 May, the share prices of Dutch banks slumped by over 12%, and risk premiums went up by 66%. Dutch insurers experienced a similar pattern. The announcement of the European safety net halted the negative spiral in a number of individual markets. Nonetheless, financial market volatility remains high at present.

The direct exposure of the Dutch financial sector to Greece totals around EUR 18 billion (Table 1). This largely concerns government bonds, but also includes private loans. In the case of Portugal, the exposure comes to EUR 13 billion. Loans to Spain – which is in a better position than Greece – amount to around EUR 100 billion. Total lending to Greece, Portugal and Spain corresponds to 3,9% of the assets of the Dutch financial

Table 1 Lending by Dutch financial institutions

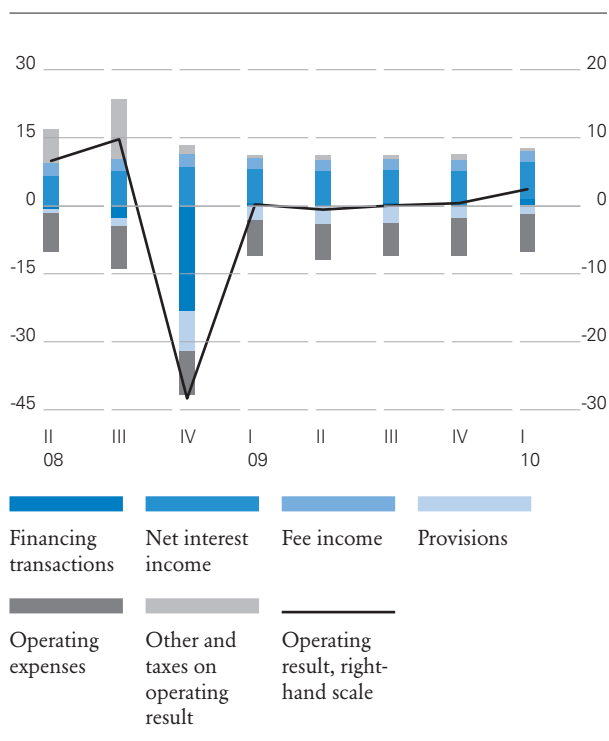
(In EUR billion, 2009 Q4)

	Greece	Portugal	Spain	Total
Banks	8,5	9,8	83,5	101,8
Insurers	2,2	0,9	8,8	12,0
Pension funds	7,3	2,4	19,5	29,2
Total	18,0	13,1	111,8	143,0

Source: DNB (own estimate).

Chart 1 Performance of Dutch banks

Main items, in EUR billion; operating result (right-hand scale) in EUR billion



Note: Figures for 2010-I are provisional.
Source: DNB.

sector. For banks, which have the bulk of these loans on their balance sheet, the figure is 3.8%.

Banks

Financial position

The profitability of the banking sector declined from the last quarter of 2008 to the first quarter of 2010. In

the past quarter there has been a modest improvement in profits (Chart 1). That is attributable partly to a reduction in additions to the provisions which banks rapidly built up during the current credit crisis. Interest income is still the principal source of revenue. Owing to the steep yield curve, interest margins are quite substantial. However, there are considerable variations in profitability between banks. Factors which play a role here are business model flexibility, specialisation, and dependence on interest income. For example, a number of Dutch banks did well in their trading activities last year. These good results were due partly to the market recovery since March 2009, and are therefore not structural.

Bank financing remains vulnerable

During the crisis, banks were able – for a fee – to make use of government guarantees on debt financing. Owing to the current vulnerable situation, the possibility of extending the scheme has been retained at European level, but for a higher fee. This means that banks still have a safety net in case they are unable to raise market funding. The Netherlands aims to extend the guarantee scheme by six months, and has already increased the charge at the beginning of 2010 in order to discourage use of the scheme. It is vital that banks continue to make an effort to improve their funding position, e.g. by raising more long-term finance. DNB is keeping a close eye on the banks’ financing needs and the way in which it is satisfied.

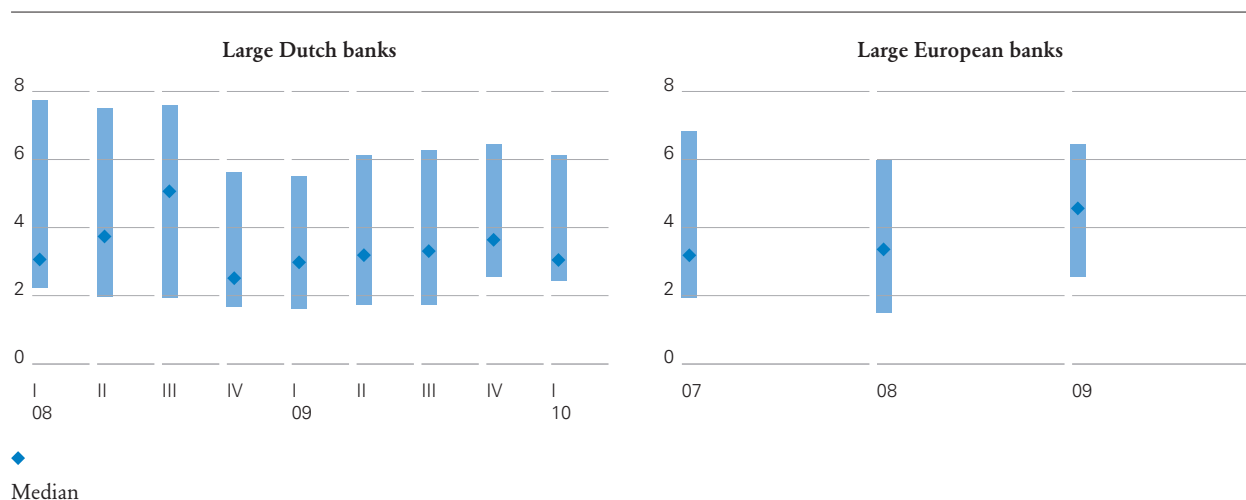
The vulnerability of bank financing may affect lending to businesses and households. Since the outbreak of the crisis, there has been a steep decline in the expansion of credit in the Netherlands, although there have been signs of stabilisation in recent months. A key reason is the lower demand for credit due to a sharp fall in economic activity and the associated uncertainty. For example, the decline in the growth of corporate credit tallies with model estimates based on the link between economic growth and credit growth during previous recessions. In addition, now that the housing market has cooled, that is depressing lending. Many banks record a fall in demand for home loans in the first quarter of 2010. In terms of buying and selling, the housing market seems to have bottomed out. In view of the increased economic risks, banks are also tightening their criteria for the grant of new loans, although conditions did ease off at the beginning of the second quarter. There is a danger that if the economy picks up and demand for credit increases again, the supply of loans will become the limiting factor. Timely strengthening of the financing position will reduce the risk of such a scenario.

Basel 2 modifications

At the end of last year the Basel Committee presented proposals for strengthening the banking sector. A new liquidity requirements framework is to be introduced to ensure that banks have sufficient liquid resources at their disposal. In addition, banks must hold higher quality capital so that they are better able to absorb

Chart 2 Leverage ratio – large Dutch and European banks

In percentages, equity/balance sheet total



Note: Blue bars show the min-max range. 2010-I figures for large Dutch banks are provisional. Figures for large European banks are based on

13 large institutions. Source: DNB and annual reports.

losses. Measures have also been developed to ensure that in good years extra capital is built up to be available for use in bad years. Furthermore, the leverage ratio – a measure of financial gearing – is being used to create a safety net under the risk-weighted capital requirements of Basel II. An impact study was conducted among the banks to find out more about the implications of the proposals. The resulting data are currently being analysed. The measures will be calibrated on the basis of the findings. Various initiatives for strengthening the international financial system are currently being developed. The Basel Committee's proposals merit priority. A surfeit of potential supplementary measures must not distract attention from that priority.

During the crisis, banks strengthened their balance sheet in response to pressure from the market and regulators. In some respects, they thereby anticipated the Basel Committee's proposals. With a tier I ratio averaging 13%, large Dutch banks have substantial capital buffers in comparison with other major European banks. Some banks have also taken steps to improve the quality of their capital.

Yet the banking sector will probably have to take additional steps. For instance, the leverage ratio of Dutch banks – measured as the equity capital in relation to the balance sheet total – is low in comparison with

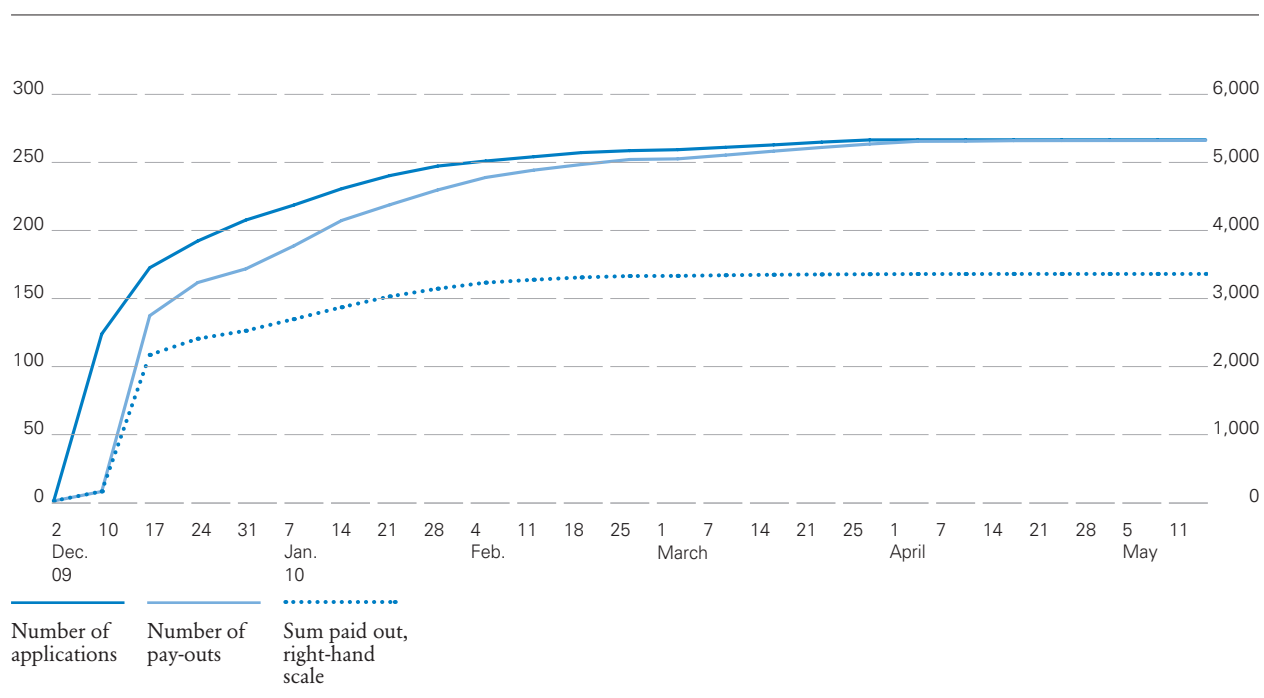
other large European banks (Chart 2). Moreover, this criterion deteriorated in the last quarter, while in the five preceding quarters the trend was upwards. Banks can strengthen their equity by raising capital on the market. The longer the banks wait before doing so, the more competition they could face from other financial institutions. Another way of strengthening the equity is the retention of earnings via a more restrained dividend policy, though it must be said that the operating profits of Dutch banks are relatively low in comparison with those of other European banks, so that there is now little scope for boosting capital levels by retaining earnings. By effective cost-cutting, Dutch banks can improve their profit levels and thereby also strengthen their equity capital. If banks cannot raise or build up sufficient capital, they will have to sell off some assets.

The merger between ABN Amro and Fortis

On 1 April the ABN Amro-RBS holding company was officially divided into two, and the new ABN Amro is now independent. Arrangements for the merger with Fortis Bank Nederland can now begin. In the period ahead, the management of the bank faces the challenge of defining the integration process while at the same time ensuring that the current banking business is run efficiently. The future profitability of the merged bank

Chart 3 Applications and pay-outs under the deposit guarantee system on account of DSB's bankruptcy

Applications and pay-outs in thousands; Sum paid out in EUR million (right-hand scale)



Source: DNB.

depends to a great degree on the success of the forthcoming cost savings. Furthermore, the combined institution must strengthen its solvency position since the express aim is to achieve a higher credit rating.

DSB and the deposit guarantee system

In administering the deposit guarantee system for DSB Bank, DNB has now effected 267,500 pay-outs totalling EUR 3.37 billion (EUR 3.51 billion including payments under an advance scheme; Chart 3). Altogether, 98.6% of non-subordinated (see below) applicants have received full compensation in respect of the bankruptcy. Many of the applications received before Christmas were settled before the holiday period, as promised in the Minister's statement to the Lower House. This concerned around 162,000 applications (EUR 2.4 billion). The speedy pay-out was possible because DNB automated the entire process from application to payment. This process involved the use of the DigiD functionality, used by almost 80% of applicants. In addition, proceedings are currently pending over whether or not holders of a subordinated deposit are rightly excluded from cover under the deposit guarantee system. The total value of the subordinated deposits comes to around EUR 111 million.

Insurers

Financial position

Over 2009 as a whole, the insurance sector has seen a general recovery in its solvency position (from 221% to 254%), mainly as a result of the financial market revival. In the last quarter of 2009, there was only a marginal change in the solvency of insurers (Chart 4). In the fourth quarter of 2009, investment income was down against the successful third quarter. Nonetheless, the life and non-life sectors recorded sound returns on investments. If the capital market interest rate remains persistently low, it will be more difficult to achieve a high return for own account. For life insurers in particular, with their substantial portfolio of fixed-income securities, that could put profitability under stress.

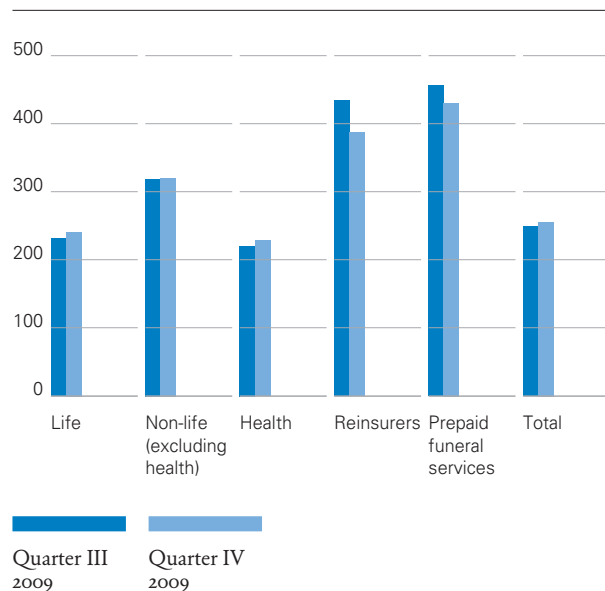
Decline in new life business

The decline in new sales of individual life insurance policies seems to be continuing in the initial months of 2010, according to the figures issued by the Centre for Insurance Statistics (CVS).

That is attributable to a combination of temporary and structural factors. One temporary factor is the eco-

Chart 4 Solvency ratio of Dutch insurers

In percentages, actual solvency divided by required solvency



Source: DNB.

nomie downturn: the low level of activity on the housing market reduces the sale of mortgage-linked policies. However, that factor can account for only part of the decline. Mortgage-linked products are only one component of the total sales of life insurance, while the decline in new business is evident in virtually all product categories.

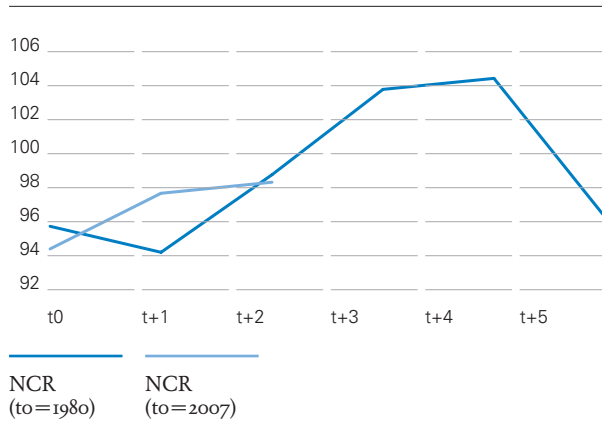
As a result of the introduction of the Bank [Mortgage and Pensions] Savings Act [*Wet Banksparen*] in 2008, life insurers are experiencing growing competition from banks and investment firms. Although the scale of bank savings deposits is modest, at EUR 2.4 billion at year-end 2009, those deposits have at least quadrupled in relation to the previous year. Bank savings products account for a substantial proportion of the new business in tax-efficient asset formation. Their market share is likely to continue growing in the years ahead. The speed of that growth depends partly on the propensity of existing insurance policyholders to switch to a bank savings policy, and the stage which the current portfolios of insurers have reached.

As policies in the portfolio come closer to expiry, the likelihood of a switch increases.

What this will mean for individual life insurers depends partly on the speed and degree of the cuts which they can achieve in their cost base. The mix of group and individual contracts is also a factor. In cer-

Chart 5 Net Combined Ratio – Non-life (excluding health)

Comparison of two periods of recession



Source: DNB.

Note: Net combined ratio = (net claims incurred + operating costs) / net earned premiums x 100. The dark curve shows the NCR in the 1980s and the light curve shows the NCR from 2007.

tain respects, the outlook for the group contract market is better, e.g. because pension funds are transferring their portfolios to insurers. However, this market is 20% smaller than the market for individual contracts, as well as being less profitable. And pension funds can only transfer their portfolios if they are not underfunded. All in all, the introduction of the bank savings scheme will exert structural pressure on the earning capacity of a large part of the life insurance sector. Modifications to the business model seem inevitable.

Non-life and health sector

The non-life and health sector seems to be surviving the crisis well, with the health sector in particular seeing a rise in premium income. Although premium income in the non-life sector remained stable in 2009, a protracted period of economic decline could depress the profitability of that sector. During the 1980s recession, the net combined ratio – claims paid out plus operating costs as a percentage of premium income – increased by 9 percentage points (Chart 5). In operational terms, the sector was then making a loss.

Figures obtained from the Health Care Insurance Board (CVZ) indicate that the health insurance fund (Zvf) deficit is likely to have risen to EUR 3 billion at the end of 2009. The fund, which is used to pay the risk equalisation contributions to health insurers, has an annual turnover of roughly EUR 20 billion. The Zvf fund is financed by income-related contributions (percentage premiums) and the State contribution. There

are also the standard premiums to fund health care costs. In order to reduce the Zvf deficit in the coming years, health insurance premiums will have to rise.

Regulations: Solvency II

According to the schedule, the new European supervision framework, Solvency II, will be launched at the end of 2012. It will mean significant changes for the insurance sector. That is due not only to the increased capital requirements compared to the current situation, but also to the adjustments resulting from Pillar II. These will force institutions to scrutinise and improve their risk management, governance and business model. Owing to the radical changes, insurers need to start in good time on making the adjustments necessary for the migration to Solvency II.

DNB recently sent out a questionnaire to all insurers to find out how the sector is getting on with the preparations. The first results will be analysed in mid June. This year there will also be a new Quantitative Impact Study (QIS₅) to gain an insight into the implications for capital requirements.

Pension funds

Financial position

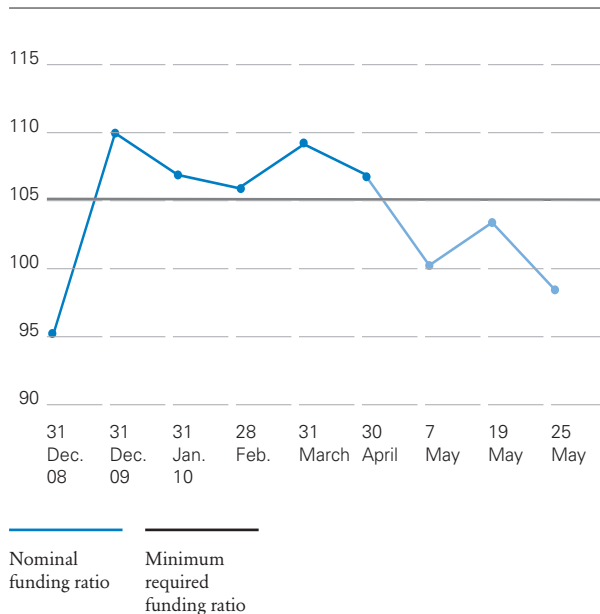
Owing to the recent market developments concerning Greece, pension fund reserves again came under severe pressure in May. Provisional DNB estimates indicate that the average funding ratio at the end of May was around 98% (Chart 6). The deterioration in the funding ratio is due primarily to the decline in the long-term interest rate, which has augmented the long-term liabilities of pension funds. In addition, the value of pension fund investments has fallen owing to the drop in share prices. The funding shortfall in the pension sector as a whole means that there is insufficient scope for absorbing new shocks.

System reforms

The future sustainability of the current Dutch pension system is coming under increasing pressure, partly because of the constantly rising life expectancy and the persistently low capital market interest rate. In addition, population ageing means an increase in the number of pensioners as a ratio of the number of contributing members, so that it is becoming harder for funds to improve the funding ratio by raising premiums when the economy is not doing well.

Chart 6 Weighted average funding ratio of Dutch pension funds

In percentages of liabilities, funding ratios from 30 April are provisional estimates



Source: DNB.

Note: Funding ratios are estimated by DNB. The minimum required funding ratio is approximate.

In the coming months, the political and social partners will debate the future of the Dutch pension system. It is important to revise the legal framework within which pension schemes are agreed, so that the system can better withstand population changes and adverse economic developments. Such adjustments merit priority, even if the financial markets recover and the feeling of urgency diminishes. It is essential that pension funds make their members fully aware of the necessary adjustments.

Recent developments in payment and settlement systems

The creation of the Single Euro Payments area (SEPA) has implications not only for banks but also for businesses and government institutions. A recent survey reveals that small firms, in particular, have not yet realised that. So far, that is not a problem, but increased awareness among small firms would be a good thing.

In 2009, skimming cost the banks EUR 36 million.

In the Netherlands Antilles islands of Bonaire, Sint-Eustatius and Saba, the dollar will become the sole currency for all payments from 1 January 2011. DNB is dealing with the preparations for this change.

Retail payments

Awareness of SEPA among firms and public authorities

In the Netherlands, most small and medium-sized enterprises (SMEs), large firms and government bodies still have much to do to get ready for the transition to European payment products. That is evident from the survey of large government institutions, large firms, SMEs and software vendors conducted by the National Forum on the Payment System (MOB). The survey takes place every half year, measuring awareness of what SEPA means for public authorities and firms. The survey also provides information on the preparations made by firms and public authorities and the actual use of the European payment instruments.

Most public sector entities and large firms seem to be aware of the implications of SEPA for their own organisation. Among SMEs, knowledge of the impact of SEPA on their own organisation is fairly limited as yet. The European credit transfer has already been launched, and will be followed by the European direct debit. A substantial proportion of large firms and the public sector are working on preparations for the European credit transfer. Only a few SMEs have started making preparations yet. A small proportion of them already use the European credit transfer (see Chart 1). The questionnaire also contains questions on the European direct debit, and the answers indicate that most firms want to switch to both new European payment products simultaneously. The longer the two systems have to operate in tandem, the higher the costs.

Software vendors are important in the transition to European payment products: they develop the software that firms and public institutions need to switch to SEPA. The majority of software firms are working on the advent of European payment instruments, albeit at various stages (see Chart 2). They have made

Chart 2 How far have you got with developing software for SEPA payment products for domestic payments?

In percentages

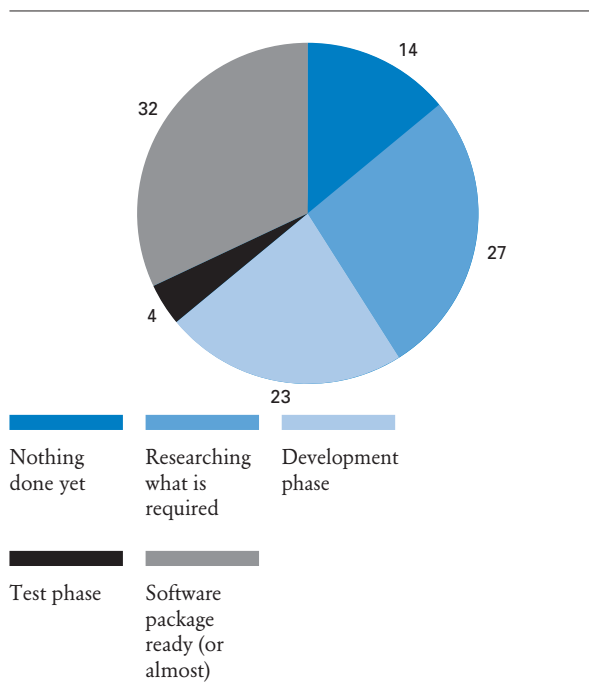
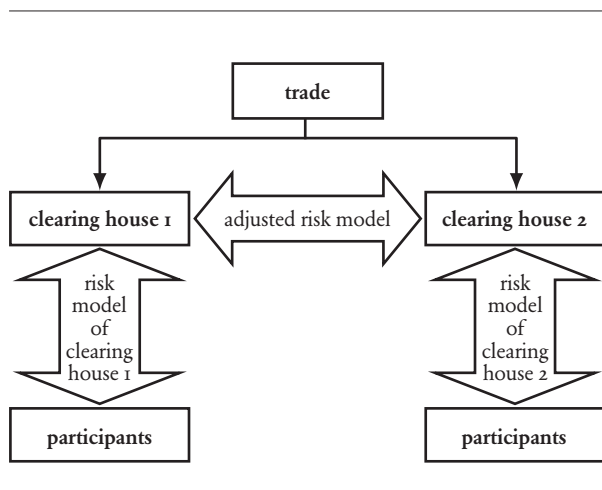


Figure 1 Mutual links between clearing houses



more progress on developing software packages for the European credit transfer than for the European direct debit.

In general, the public sector and large firms welcome the arrival of SEPA (see Chart 3). SMEs are fairly neutral, and do not see SEPA as a definitely positive or negative development. For instance, they see risks in the fact that not all countries will be equally ready, and in the lack of clarity and possible insecurity of the European direct debit. The survey findings are used to support business users in preparing for the start of the European payment market.

Skimming at cash dispensers and payment terminals in the Netherlands

In 2009, the skimming of cash cards cost the banks EUR 36 million; that is 16 % higher than the 2008 figure (EUR 31 million), according to the Netherlands Bankers' Association (NVB). The banks bear that loss: the consumers affected are compensated. In 2009, skimming led to losses on 32,000 payment cards (out of a total of 25 million cards in circulation). Although the number of skimming incidents has risen, detection measures reduced the loss per skimmed card in 2009 from EUR 1500 (in 2008) to EUR 1100.

Skimming means that criminals copy the magnetic strip on a cash card or credit card, and they find out the PIN code when a legitimate transaction takes place. They then make a copy of the card with which they can withdraw cash and make payments at home and abroad. For this type of payment card fraud, criminals target not only cash dispensers provided by banks and point-of-sale terminals in shops, but also unmanned and portable payment terminals. With the arrival of European payment cards, the magnetic strip is being replaced by the EMV chip. Use of the EMV chip makes skimming fraud more difficult because the chip is much harder to copy. In the Netherlands, chip technology

will be the only system used for card payments from the end of 2011 at the latest.

Banks, the public prosecutions service and the police are cooperating closely in 2010 to halt the rising trend in skimming. That cooperation involves the national and international exchange and analysis of information so that criminal networks can be detected and prosecuted at an earlier stage.

Introduction of the dollar in Bonaire, Sint-Eustatius and Saba

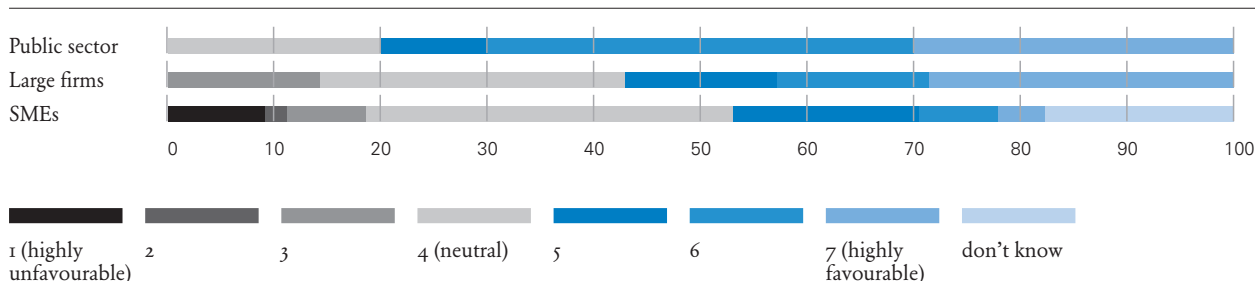
On 1 January 2011 the US dollar will become the currency of the Netherlands Antilles islands of Bonaire, Sint-Eustatius and Saba (BES islands). On 10 October 2010 the Netherlands Antilles will cease to exist as a political entity and will become part of the Dutch State system. The Ministry of Finance has asked De Nederlandsche Bank (DNB) to take charge of the preparations for the introduction of the dollar. Netherlands Antilles guilders have to be exchanged for US dollars, and credit balances on bank accounts in the islands will also have to be converted.

The adoption of the US dollar, decided jointly by the Dutch government and the island authorities, is more logical than it might at first appear. The Antilles guilder has long had a fixed parity with the US dollar, remaining unchanged since 1971. Owing to the fixed parity and the geographical location, the islands' international trade has focused largely on dollar economies.

Introduction of the dollar in the BES islands has similarities with the introduction of the euro in the Netherlands. The existing and new currencies will be legal tender in parallel for one month. The strategy aims to eliminate the guilder more quickly from cash payments. That will be achieved by supplying only dollars via ATMs and bank counters from 1 January, and by retailers giving change in dollars. Important differences between the two changeover operations are that the

Chart 3 Expected impact of SEPA on internal organisation

In percentages



preparation period is considerably shorter, and that the launch is simultaneous for both the cash and the non-cash changeover.

Following the changeover, DNB will be responsible for promoting the smooth operation of the payment system there. That includes the circulation of dollar banknotes and coins.

Oversight

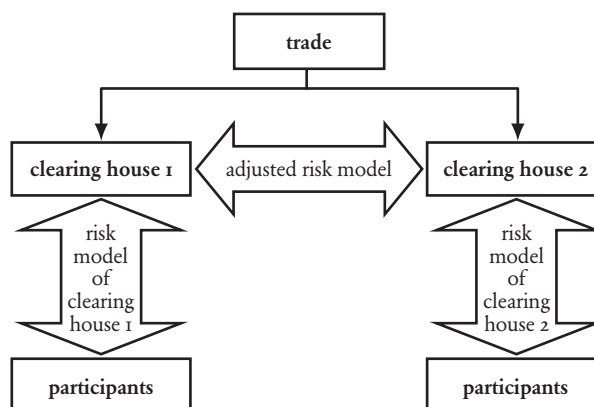
Marking time on interoperability between clearing houses

Together with the AFM and other regulators concerned, DNB has raised objections – in view of market developments – regarding the way in which clearing houses wanted to organise interoperability. A clearing house handles the central processing of securities transactions and is therefore a key component in a secure and efficient financial market. This concerns transactions in equities, bonds or derivatives effected on a trading platform such as a stock market. In most cases, clearing takes place on a single trading platform via one specific clearing house. If clearing houses establish mutual links, a market could be cleared by more than one clearing house (see Figure 1). The establishment of links is also known as interoperability. Interoperable clearing houses have to adapt their operational organisation accordingly, and ensure that their financial risk management model is robust and secure. Interoperability may promote competition between clearing houses, and thus drive down costs for market participants.

EMCF is a Dutch clearing house that aims to become interoperable with the Swiss clearing house SIX X-Clear and with the British clearing house LCH.Clearnet Ltd.

Another British clearing house, EuroCCP, also wants links with the clearing houses mentioned. In the summer of 2009 those clearing houses presented their plans to the relevant Dutch, British and/or Swiss regulators. Following in-depth analysis, DNB and the AFM concluded that the proposal submitted at the end of 2009 for organising the links does not conform to the relevant international standards, and furthermore, leads to financial system risks which cannot be adequately controlled. The objections centre on the way in which the credit risk is covered between the CCPs. DNB and the AFM asked EMCF to revise its proposals for interoperability with LCH.Clearnet Ltd. and SIX X-Clear. The British and Swiss regulators saw merit in the arguments of DNB and the AFM. The existing link between LCH.Clearnet Ltd. and Six X-Clear is therefore being reorganised.

Figure 1 Mutual links between clearing houses



At the beginning of this year, DNB and the AFM issued a joint statement on interoperability with the British Financial Services Authority (FSA), the Swiss National Bank (SNB) and the Swiss securities regulator Finma. The joint statement was intended to clarify the regulators' position on interoperability regarding clearing houses, trading platforms and other market participants. In the statement, the regulators acknowledge the potential benefits of interoperability between clearing houses, but interoperability does also introduce new risks into the financial system, such as credit risks, legal risks, operational risks and settlement risks. Those risks need to be acknowledged and mitigated. The credit risk between clearing houses has to be mitigated by demanding additional collateral from market participants. Higher risks therefore imply higher costs for market participants. The expectation is that the benefits of interoperability for market players will ultimately outweigh these additional collateral costs. EMCF, EuroCCP, LCH.Clearnet Ltd. and Six X-Clear are currently working together on a new interoperability model.

Financial stability: International financial system still under pressure

Global exchange rates have been volatile since the financial crisis. After an initial appreciation, the euro is now being pushed down by concerns about imbalances within the euro area related to the sustainability of public finances. Emerging economies face opposite forces: renewed capital flows, driven by a remarkably rapid economic recovery and exceptionally loose monetary policy in the developed economies, are putting intense upward pressure on their currencies. Countries with a dollar peg, such as China, run the risk that adjustments will occur through domestic price increases. Those countries need to act against the formation of asset price bubbles in order to prevent an abrupt correction.

Introduction

Both divergent macroeconomic developments and the persistent financial crisis are keeping the international financial system under pressure. On the one hand, Europe is confronted with a confidence crisis caused by wayward public finances. On the other, emerging economies are posting strong growth and need to guard against overheating. The economic recovery in the United States is gradually gaining momentum. These contrasting global developments are reflected in exchange rate relationships. The euro came under pressure in this turbulent period, depreciating by around 15% against both the US dollar and the Japanese yen in the space of six months (Chart 1). This article first looks at developments in the euro area and the support measures offered by governments. It next touches briefly on the US recovery, before dealing with the capital flows to emerging economies.

Vulnerable debt levels in the euro area

Uncertainty about the sustainability of debt in a few peripheral euro area countries dominated financial markets in the first half of 2010. Notably Greece's ability to service its debts was a huge concern. Investors were faced with downgrades in the credit ratings of both Greek sovereign bonds and of Greek banks, an upward revision in the Greek budget deficit over 2009, and doubts about whether international support would be forthcoming and, if so, what form it would take. The interest rates on Greek treasuries soared, as did the costs of insurance against a Greek bankruptcy.

Support for Greece

The Greek government officially requested financial aid from the euro area countries and the IMF at the end of April. In early May this support came in the form of a EUR 110 billion loan for a three-year period; the IMF approved EUR 30 billion of this amount. The loan is subject to strict conditions aimed at consolidating Greek public finances and restoring competitiveness. The historically large support package sought to allay the funding uncertainties for Greece. Nonetheless, the threat of widespread contagion within the financial system remained. Government bonds issued by other euro area countries (particularly Ireland, Portugal and Spain), which are usually highly liquid, became difficult to trade because of the exceptional risk aversion among market parties. This heightened country risk was passed on to the financial sector through balance sheet losses. Liquidity in the interbank money market threatened to evaporate, as happened shortly after the collapse of Lehman Brothers in 2008. The tension was then no longer confined to Europe. Volatility in equity and currency markets increased worldwide.

Wide safety net for the euro area

Under this constellation, on Monday 10 May, European government leaders announced measures to safeguard financial stability, centred around an emergency plan providing for a stabilisation mechanism for the euro area. The total volume of this mechanism is EUR 500 billion, EUR 60 billion of which was made immediately available by the Commission. The remaining EUR 440 billion consists of three-year guarantees by euro countries for a joint financing vehicle. Moreover, the IMF announced that on activation of the mechanism it would provide at least half of the European support. As in other IMF programmes, any actual support will be linked to tough conditions regarding economic policies. The effectiveness of the safety net depends on countries' willingness to implement reforms.

Following the announcement of the emergency plan, the ECB decided to start purchasing public and private debt securities in the secondary market. In designing its purchasing programme the ECB targeted malfunctioning segments of the debt securities market that threatened to disrupt the monetary policy transmission mechanism (see the article 'Economic developments and prospects'). The ECB stressed that this would not involve any quantitative easing: the monetary expansion will be sterilised by depositing it

in a one-week fund on a weekly basis. The package of measures was complemented by a return to conducting three-month longer-term financing operations (LTROs) with full allotment and the reintroduction of a six-month LTRO. Because a shortage arose for European banks in the dollar money market, the ECB also resumed refinancing operations in dollars, facilitated by the reopening of the swap line with the Fed. Owing to the unattractive price structure, banks have made little use of this facility so far.

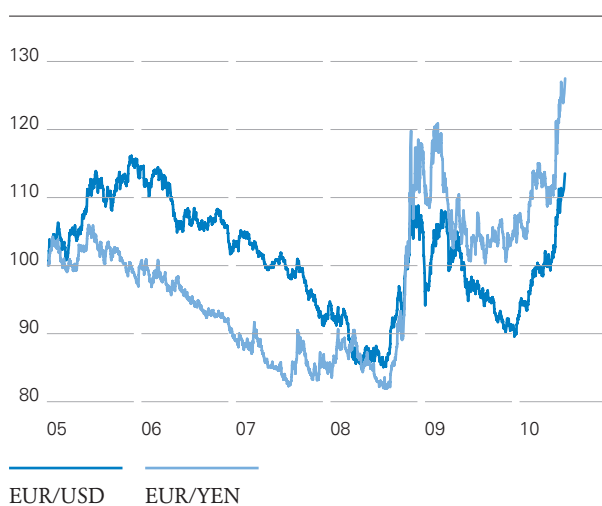
Timely and adequate intervention by the authorities was extremely important to protect a still vulnerable financial sector and economy against a new period of contagion risk and evaporating markets. However, the safety net does not make it any less important for European countries to consolidate their budget and improve competitiveness (see the article ‘Reinforcing fiscal discipline in the euro area’).

Cautious recovery in the United States

For one because of the turbulent developments in the euro area, investors once again see the dollar as a safe haven. In addition, the growth expectations for the US economy are now better than those for Europe. US GDP grew by 3.2% in the first quarter of this year (quarter-on-quarter, annualised). Although this continues the upward path seen in the last quarters of 2009, the current US recovery is expected to be weaker than in normal business cycles because of a still fragile hous-

Chart 1 Euro exchange rate against US dollar and Japanese yen

Index: 1 January 2005 = 100



Source: Datastream.

ing market and a jobless rate that has hit record height (9.9% in April). Core inflation in the United States in April slipped back to its lowest level since 1966.

Against this background, but also because of the sharp decrease in wealth positions since the outbreak of the credit crisis, US households are likely to take a cautious approach and put more aside in savings for some time to come. The increasing savings rate can partly be attributed to the sharp fall in household wealth since the start of the credit crisis. Some other factors are equally significant in reducing the likelihood of an all too strong economic recovery. The banking sector must still contend with real estate losses and the US government will have to narrow its large budget deficit back from an expected 10.9% of GDP in 2010.

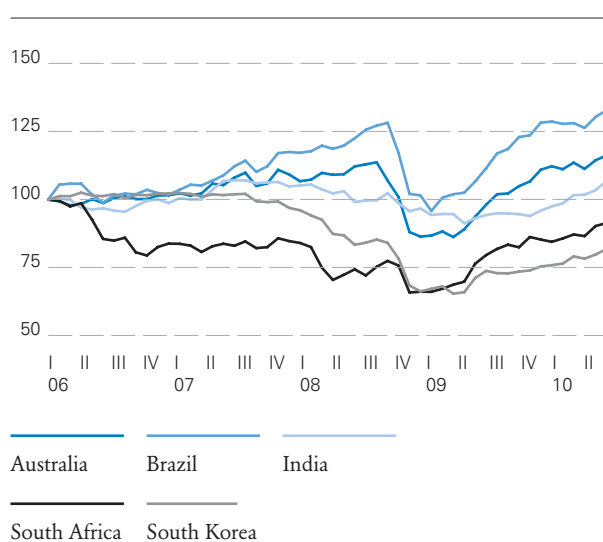
Capital flows to emerging economies

Foreign investment

Whereas the euro is under pressure, emerging economies are, in contrast, experiencing a real appreciation of their currencies caused by a recovery in capital inflows (Chart 2). Notably countries in Asia and Latin America, which came through the credit crisis in good shape, are posting robust economic growth and contributing significantly to global economic recovery. The capital flows to emerging economies thus recovered briskly in

Chart 2 Development of real effective exchange rates

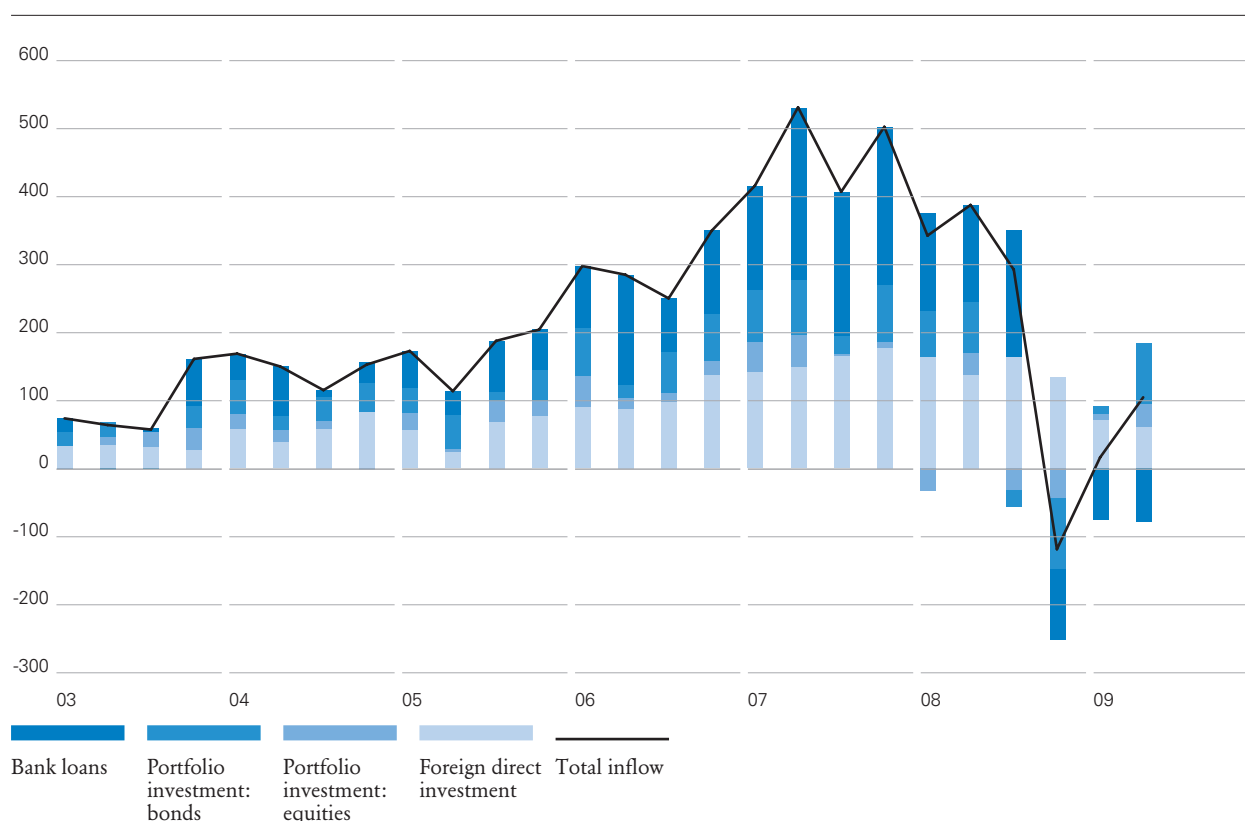
Index: 1 January 2006 = 100



Source: Datastream.

Chart 3 Liquidity-receiving economies: composition of capital inflows

Per quarter, USD billion



Source: IMF (GFSR).

2009 following the deep contraction in the last quarter of 2008. The recovery is expected to continue gaining momentum in 2010 and 2011. As yet, the renewed capital flows consist mainly of (short-term) portfolio investment and, to a lesser extent, foreign direct investment (Chart 3).

But carry trades, too

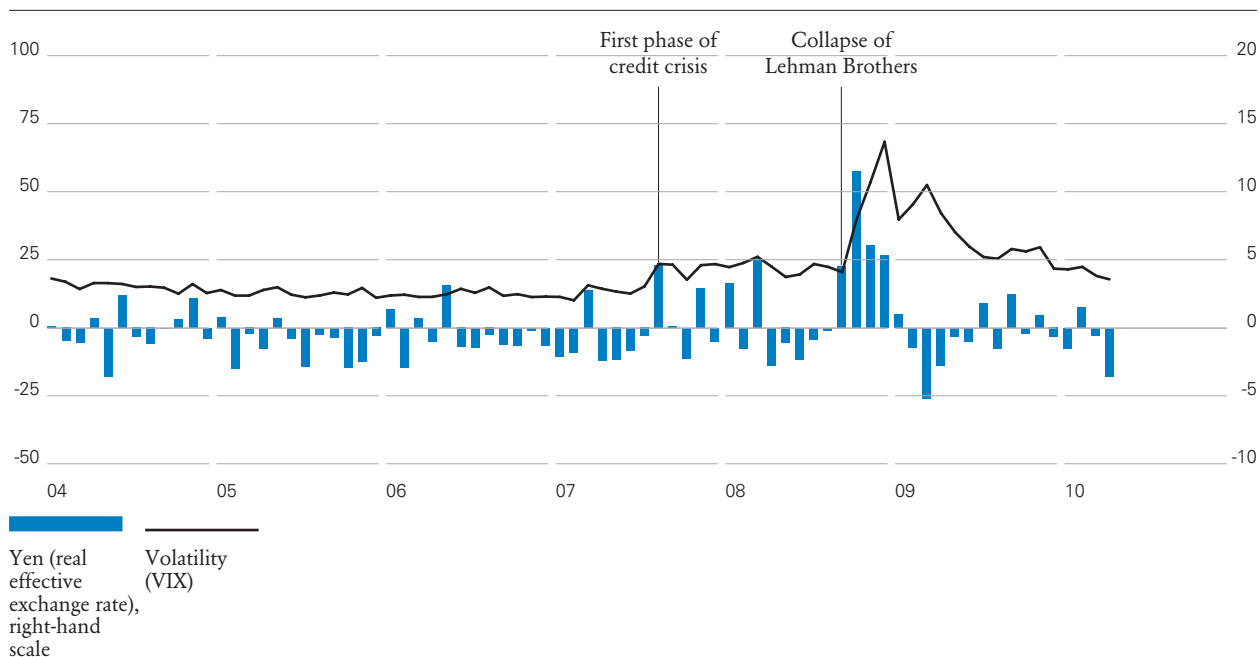
Part of the capital flows is specifically initiated to benefit from the differences in economic growth between developed and emerging economies. Another part is more speculative and is driven by the difference between the monetary conditions underlying the main global currencies and the conditions in emerging economies. Since end-2008, the central banks of the three major global currencies have kept their key policy rates exceptionally low at 0.1% (Bank of Japan), 0.25% (Federal Reserve) and 1% (ECB). The loose monetary conditions are reinforced by the additional liquidity-providing measures still in place. Moreover, it is widely expected

in the market that these central banks will maintain the low interest rates for some time yet. Under these circumstances, investors use the Japanese yen and the US dollar as source currencies for setting up carry trades to the currencies of emerging economies (also labelled target currencies) where interest rates are higher, for example Brazil (key policy rate: 9.5%) or India (5.25%).

Where carry trade positions are built up over time, investors display herding behaviour in unwinding them. In statistical terms, there is a high degree of skewness in the distribution of exchange rate movements: longer periods of stability are interspersed with a few days or weeks of strong volatility. The exchange rate adjustment occurs abruptly. Economic-historical research into abrupt exchange-rate adjustments for some major target currencies show a correlation between financial market volatility and the unwinding of carry trades. If investors suspect that the target currency is starting to depreciate, they all at once unwind their currency position to minimise their exchange rate loss. This may

Chart 4 Market volatility and yen's real effective exchange rate

VIX index and yen (m-o-m percentage changes, right-hand scale)



Source: Datastream and BIS.

trigger a self-induced, steep depreciation. Conversely, source currencies face upward pressure in such situations. The yen was the most widely-used source currency at end-2008. The abrupt unwinding of carry-trade positions caused a flow of capital back into Japan, significantly pushing up the yen (Chart 4).

Carry trades may pose a risk to financial stability, especially for emerging economies where the carry trade may have a serious impact on the volume and direction of capital flows. If there is insufficient capacity to absorb it, an inflow of capital may quickly lead to bubbles, fast credit growth and an overvaluation of asset prices. To avert this situation, some countries have attempted to temper the inflow by introducing capital restrictions. Brazil brought in a 2% tax on funds flowing into short-term portfolio investment. In Russia and India, too, the option of imposing capital restrictions is now openly under discussion. Although capital restrictions may direct the inflow towards relatively longer-term capital, experience shows that their influence in actually curtailing the capital inflow is only modest and temporary. Besides, capital restrictions may disrupt market forces for other countries too.

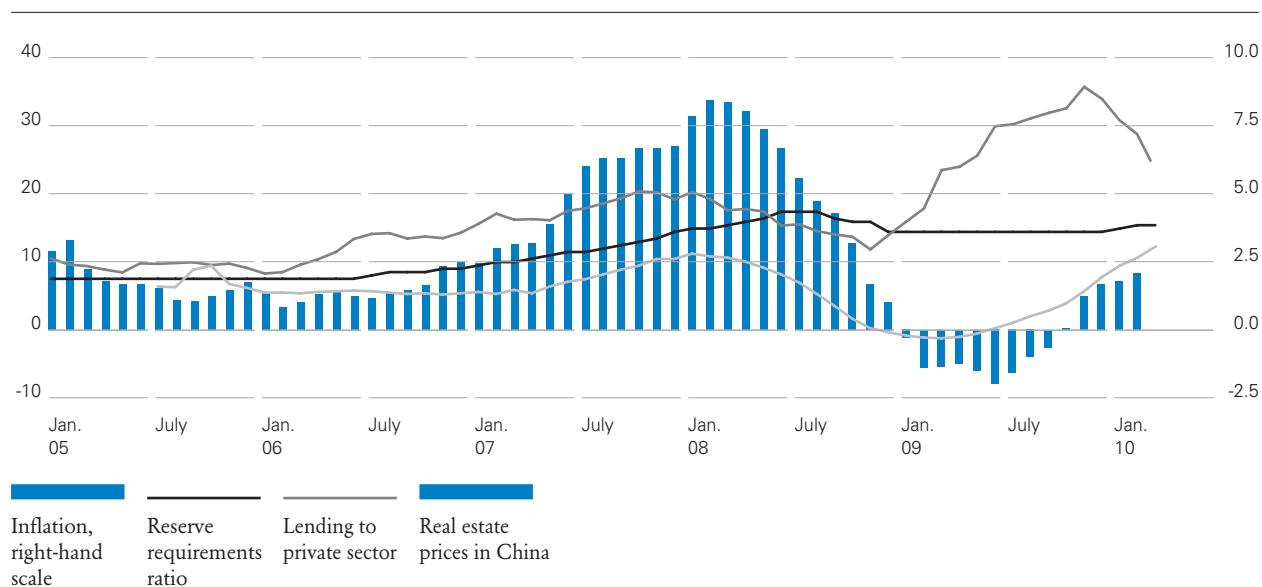
Chinese dollar-peg under pressure

In a broader sense, the debate on capital restrictions illustrates the dilemma facing emerging economies. The convergence of these countries with developed economies requires an appreciation in their real exchange rates. A flexible exchange rate policy harbours the risk that appreciation may lead to speculative capital flows, overvaluation of the exchange rate and the risk of an abrupt outflow of capital. Monetary policy may be deployed, but an increase in interest rates may reinforce the capital inflow. Mindful of the massive outflow of capital at the time of the Asian crisis (1997) and the recent credit crisis, many central banks in emerging economies hence opt for exchange-rate interventions and an accumulation of foreign currency reserves.

Countries with a completely fixed exchange rate, particularly China and Hong Kong, are limited in their scope for pursuing an independent monetary policy. Risks manifest themselves here, too. The Chinese economy is in a boom period and grew by 11.9% in the first quarter of 2010. However, the dollar peg compels the Chinese central bank to follow the US in implementing loose monetary conditions. Exuberant credit growth and a sharp rise in real estate prices point to the risk of bubbles. In April, real estate prices in the seventy largest

Chart 5 Indicators of bubbles forming in China

Inflation (right-hand scale), real estate prices, lending (only y-o-y percentage changes, per month) and reserve requirements ratio (percentages)



Source: Datastream, People's Bank of China and IMF Banking Survey.

Chinese cities increased by on average 12.8% relative to the previous year, the largest rise in the past five years (Chart 5). The recent stagnation in Chinese equity prices suggests overvaluation, as does the decline in house sales in large cities by more than 60% in May (relative to April). In these conditions, inflation continues to climb rapidly. In light of the credit growth, the Chinese central bank has, on as many as three occasions, raised its reserve requirement for lending by 0.50 percentage point since the start of 2010. In Hong Kong, macroprudential instruments, such as credit limits, were deployed to reduce the risk of bubbles. Against this background, however, an appreciation in the Chinese renminbi appears unavoidable, if the authorities want to prevent an adjustment in real exchange rates through a further increase in domestic inflation.

Articles

Ten points for the Financial Assessment Framework

The Dutch pension system is not totally future proof. Population ageing is continuously pushing up the costs, while the greater shift to equity investments is making the system more vulnerable to shocks. Short-term adjustments are essential if we are to avoid saddling future generations with the bill. In addition, we need to tighten the supervisory framework in order to enhance pension funds' shock resilience. The ten required measures focus on four bottlenecks: the tension between a nominal and a real approach to pensions; the lack of balance between risk and return; dealing with volatility; and the realisation of the targeted security. This article highlights ten specific changes aimed at addressing these bottlenecks.

Introduction

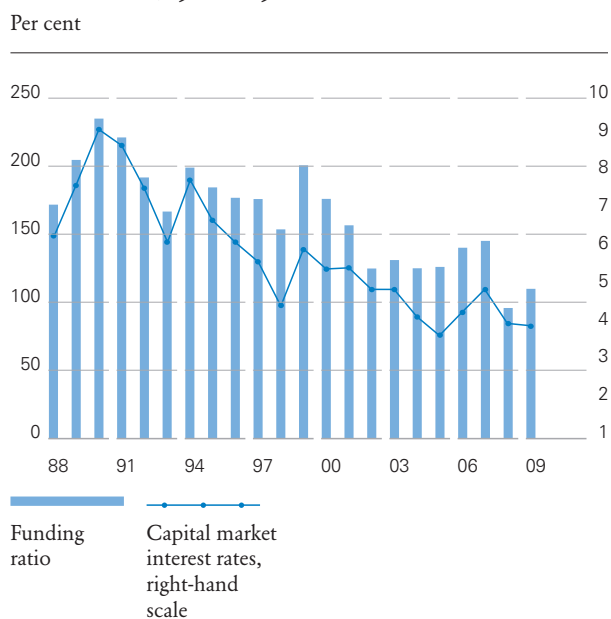
The Financial Assessment Framework (FTK) is designed to ensure that undertakings given to pension scheme members in the Netherlands are based on a high degree of probability. This comes down in practice to the question of whether a pension fund has the financial resources needed to meet its commitments now and in the longer term. The main objectives of the FTK are as follows:

- Consistent valuation of pension fund assets and obligations;
- Calculation of pension obligations based on realistic principles;
- Ensuring the buffer matches the risk profile of the pension fund;
- Encouraging long-term risk analyses.

Many of these objectives are achieved in practice. For example, pension fund assets and obligations are valued on the basis of market principles. The importance of this consistent valuation lies in the need to obtain a clear picture of the financial position of a pension fund. For example, marked-to-market valuation reveals the gradual but steady decline in funding ratios since the early 1990s (chart 1). This substantial decline, which is related to the trend in market interest rates, remained invisible before the introduction of the FTK, when the system used a fixed actuarial interest rate. In addition, the fluctuations in the financial markets underline how important it is that the investment policy of a pension fund accurately reflects the content of the pension contract, and that the solvency test ensures the maintenance of buffers that match the fund's risk profile. This is supplemented by continuity analysis, which takes into account the long-term financial objectives. In general, therefore, the FTK functions well here.

Yet there are a number of caveats attached to the functioning of the FTK in practice; these relate to the compromise that has been sought between security and affordability. Broadly speaking, there are four problem areas here. First, pension funds face the complex task of striking a balance between offering security regarding the unconditional pension entitlements of members and meeting members' conditional entitlements. In practice this comes down in virtually every case to a trade-off between nominal security and the goal of indexation. These two aspirations have differing impacts on the optimum investment policy. Offering nominal security, achieved by hedging the nominal interest rate risk using long-dated bonds and interest rate swaps, limits the opportunities for indexation. Conversely,

Chart 1 Trend in funding ratios and capital market interest rates, 1988-2009



increasing the opportunities for indexation, by embarking on high-risk investments, reduces the security of the accrued nominal entitlements. Second, in some parts of the FTK there is an inadequate balance between risk and return; this is the case, for example, with regard to the assessment of pension fund recovery plans, where the emphasis is on the average route of the continuity analysis. The capacity for recovery based on that average route is greater when a higher risk – and therefore a higher potential return – is taken as a basis. The greater downside risks are however left out of the picture. A third bottleneck in the FTK is the way in which it deals with volatility. In practice, the combination of marked-to-market valuation and the financial structure chosen by pension funds contributes to volatility of funding ratios; this in turn leads to volatile policy responses. Finally, the FTK currently provides an insufficient guarantee of the envisaged level of security, because of a possible underestimation of the risks and the fact that during the recovery periods the required security is exceeded.

There are a number of possible solutions to these problems. They are summarised in table 1.

Table 1 Summary of changes to FTK

Problem	Measure
Tension between nominal and real	1. Mandatory communication of real funding ratio
	2. Information on purchasing power in prescribed 'bad weather' scenario
	3. Link contribution discount threshold to real funding ratio
Lack of balance between risk and return	4. Expand continuity analysis to include stress tests
	5. Develop financial contingency plan
Dealing with volatility	6. No longer base cost-effective contributions on expected returns
	7. Introduction of waiting period for submission of recovery plan
Realise security	8. Corrections to swap curve in the event of distortions
	9. Modification of standard model to meet security criterion
	10. Partial internal model in the event of fund-specific risks

Reducing the tension between a nominal and a real approach

There are several ways of reducing the dichotomy between real ambitions and nominal security. One is to improve the flow of information to pension scheme members on the quality of indexation, for example by requiring pension funds to publish the real funding ratio – i.e. the ratio between the value of the investments and the value of the index-linked obligations. This would give members a more realistic idea of what they can expect, given the financial position of the pension fund, in terms of a stable, inflation-proof pension. To make clear the impact that uncertainty about indexation has, it is also essential that members receive information on what their pension is likely to be in a 'bad weather' scenario. It is important to standardise this scenario, so that the outcomes for different pension schemes can be compared. This would enable the impact of factors such as disappointing returns or an unforeseen increase in life expectancy to be extrapolated, and would make it clear for members that opting for a high-risk strategy of funding indexation can ultimately result in a lower pension.

In practice, indexation is often funded from uncertain returns. Several measures could be taken to limit this dependence. As an example, the reduction on the cost effective contribution rate could be linked to a real funding ratio of 100 percent. Discounting of contributions would then only be possible if envisaged future indexations are also funded. At present, contribution discounting is possible if a fund is expected to achieve 70 percent of its indexation ambition. The fact that pension funds use uncertain returns to fund indexation is due in part to the reality that there is little or no opportunity to hedge inflationary risks in the capital markets. Against this backdrop, it would be helpful if, say, the Dutch government were to issue bonds, the redemption of which was linked to the Dutch rate of inflation. In a liquid market for such index-linked bonds, pension funds would be better able to manage inflationary risks through adjustment of their investment mix.

Improving the balance between risk and return

There are also several ways of addressing the second bottleneck, namely striking a good balance between risk and return. One option would be to expand the continuity analysis by incorporating prescribed 'bad weather' scenarios. As a corollary, pension funds could also draw up a financial contingency plan, describing the financial controls to be used under difficult circumstances, and their envisaged effect on the financial position of the fund. The measures included in the financial contingency plan need not all be applied if an economic setback occurs; there is always room for a customised approach based on the nature of the crisis at that particular moment. These measures would increase the risk-awareness of pension fund boards, because they would be required to think in advance about the measures to be taken in the event of adverse economic conditions.

Another element of the FTK where incentives to take risks play a role involves the calculation of the cost-effective contribution based on the expected investment return. In reality, this approach means that only the upside is taken into account (higher expected return), while the downside (higher risk of inadequate funding) is ignored. In order to address this inconsistency, the law currently places an additional condition on discounting contributions on the basis of the expected return, namely that the expected return may not deviate from the average realised return over the long term. However, it is impossible to assess in advance whether this condition has been met, because the real return

is by definition uncertain. As a consequence, it is not possible to determine in advance whether new pension entitlements are being adequately funded through the contributions. This increases the risk of structural underfunding of new pension entitlements, and therefore of slippage of the funding ratio. One solution would be to create a uniform definition of the cost-effective contribution in which uncertain, as yet unrealised risk premiums play no role.

Dealing with volatility

Funding ratios can sometimes fluctuate widely, forcing pension funds to make policy adjustments in response to short-term movements in the financial markets. These volatile policy responses ultimately lead to greater insecurity for members about their future pension, and are generally procyclical in the sense that they exacerbate economic fluctuations. This may mean that contributions have to be raised in order to bring the buffers back up to the required level. Pension funds can limit the consequences of fluctuations in the funding ratio through their own policy. The FTK also takes some account of the undesirable consequences of volatility, for example by allowing the stabilisation of the cost-effective contributions and the use of recovery periods. Stabilising policy responses is another option, for example as regards the FTK requirements as to the submission of a recovery plan. The present FTK prescribes that a recovery plan must be submitted to the supervisory authority if a pension fund no longer holds the required (minimum) own funds. Since a pension fund submits the recovery plan immediately, based on a snapshot of its situation, this may needlessly increase the volatility of the policy response. A waiting period could instead be built in, so that a recovery plan only has to be submitted if there is still a funding shortfall or reserve deficit after three successive quarters. This would prevent pension funds having to act on the basis of a snapshot situation during a crisis. This would not of course alter the need to report a shortfall or deficit immediately. The regulator would also retain the ability to require more rapid submission of a recovery plan because of fund-specific risks, or if the situation deteriorates badly during the waiting period.

The role of the swap curve is sometimes highlighted as a source of volatility. Pension funds use the yield curve published by DNB to calculate their technical provisions. They need to do this in order to obtain a realistic picture of their financial position. The yield

curve is derived from European interbank swaps, is virtually risk-free and is generally highly liquid. Swaps are also much more readily available than, say, AAA-rated government bonds, and it is therefore more efficient for pension funds to hedge the interest rate risk via the swap market. DNB can in fact adjust the yield curve for possible distortions in the swap market, for example during periods when liquidity temporarily dries up.

Achieving the targeted security

The FTK applies the principle that an ex-ante probability level of 97.5 percent will prevent a pension fund from getting into a situation within one year where its assets are insufficient to meet its obligations. Pension funds maintain a buffer for this. In calculating the size of this buffer, all pension funds apply the prescribed standardised approach. The recent period has however made clear this approach underestimates the risks, while certain other risks – e.g. liquidity risks, concentration risks and risks ensuing from active management – are ignored. As a result, the FTK is currently insufficiently able to guarantee the targeted security. This could be corrected through a reappraisal of the standardised approach and by including risks that have thus far been left out of consideration.

There may sometimes also be fund-specific risks, for example related to investments in complex financial products. These specific risks are difficult to capture in a standardised approach. The (mandatory) application of partial internal models would accommodate this problem. This would enable the required own funds to be tailored more closely to the actual risk profile of the pension fund, and the probability margin of 97.5 percent to be achieved.

Conclusion

The Goudswaard Committee concluded that, given the present ambitions and presumed security, the Dutch pensions system is currently insufficiently future-proof. The Frijns Committee also highlighted the increased vulnerability of the system.¹ Given the present level of contributions, it is inevitable that the level of ambition will either have to be lowered or a greater degree of insecurity will have to be accepted. The proposed changes to the supervisory framework will result in a more realistic view of pensions, a good balance between risk and return, restriction of volatile policy responses and

achievement of the targeted degree of security. These are essential conditions if the Dutch pensions system is to be brought to a new and sustainable balance. It is desirable that a start be made on the envisaged changes in the near term.

¹ For the Goudswaard Committee and Frijns Committee reports (in Dutch) see www.szw.nl.

A century of financial leverage at Dutch banks

Viewed in a long-term perspective, banks have markedly increased their leverage. The driving forces behind the increase are the search for efficient use of capital, tax considerations, regulations (supervision, safety net schemes) and financial innovation. The recent crisis has highlighted the need for banks to reduce their leverage.

Introduction

Owing to the credit crisis and to supervision and regulation changes, the financial structure of banks has come under scrutiny. With their much higher levels of leverage (Table 1), banks' balance sheets differ strongly from those of other enterprises. In itself, this structural difference, which arises from banks' traditional role as intermediaries, is not disputed. But the crisis has shown that the vulnerability of banks needs to be curbed by tightened solvency and liquidity requirements.

Determinants of the financing structure

A quintessential distinction within the finance structure of enterprises is that between equity capital and debt. Borrowing on top of their paid-up equity capital enables an enterprise to invest more and thus boost its profitability. The borrowed funds thus serve as a kind of financial lever – hence the term 'leverage'.

The degree of leverage depends on various factors. One major driver of leverage is the tax system: in most countries, interest payments are tax-deductible, making debt cheaper to hold than equity. Other factors, however, serve to limit leverage. For one thing, leverage increases a firm's financial vulnerability, in that it reduced the firm's power to cope with losses. Enterprises with high risk profiles therefore need to hold relatively large amounts of capital as a buffer against loss. Governance factors may also influence a firm's financial structure, but it is uncertain whether they tend to increase or reduce leverage.

In the specific case of banks, three further factors come into play:

1. *Liquidity preference of the public.* Banks' leverage is largely composed of sight deposits and other short-term financing, filling society's need for liquid assets. In exchange for liquidity and attendant services such as payment facilities, counterparties are prepared to hold balances against, usually, modest interest rates. Thus banks' leverage increases.

2. *Safety nets.* Banks have a range of safety nets at their disposal to resolve temporary liquidity issues, such as the deposit guarantee scheme and central bank facilities. The fact that in a crisis, governments may launch rescue operations for banks may also be regarded as an implicit safety net. Safety nets serve to reduce the financial risks for financiers (i.e. depositors) thus creating an incentive towards increased leverage.

Table 1 Paid-up capital of financial and nonfinancial corporations

In percentages

Type of firm	Paid-up capital
Nonfinancial corporations	44
Insurers	
Life	14
Nonlife	26
Banks	3

Source: CBS, DNB.

Notes: Presented above is Dutch corporations' equity as a share of their balance sheet total, averaged across 2000-2008, as published by Statistics Netherlands (CBS) (large enterprise finances) and DNB (insurers' and banks' balance sheets as based on supervisory reporting). In the case of life insurers, the balance sheet total is presented net of technical provisions for policyholders' risk; with such provisions included, own funds amount to 10%.

3. *Regulation and supervision.* The minimum solvency and liquidity requirements which banks must satisfy tend to put a ceiling on the level of leverage.¹ In addition, banks are subject to supervision, which reduced the likelihood of financial problems and thus the need to hold large capital buffers. There is a danger that lenders may trust this system blindly and become less aware of risks. All in all, the impact of regulation and supervision on leverage is inconclusive.

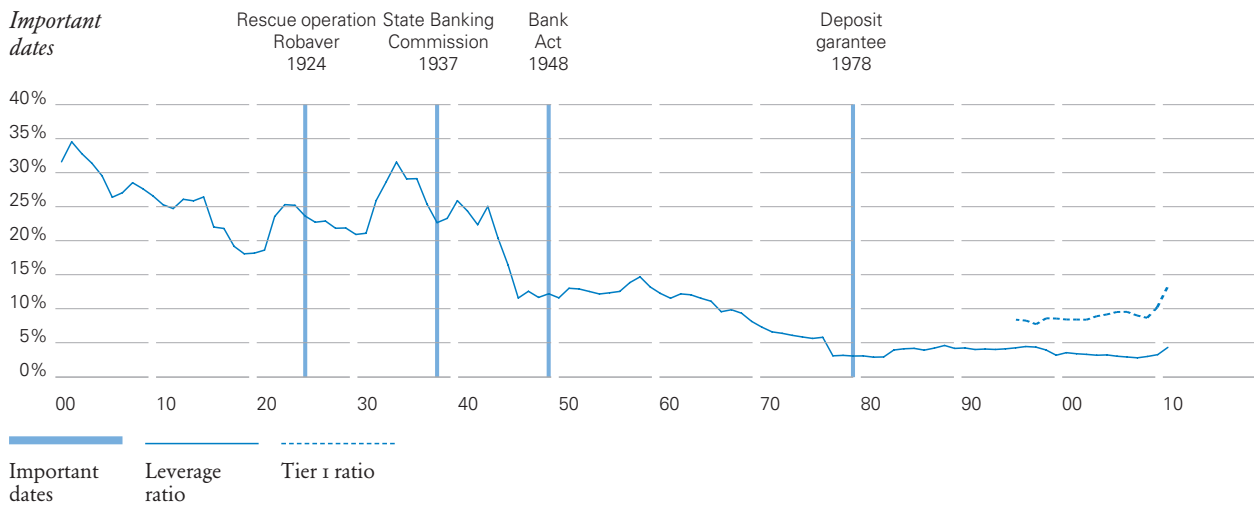
Of course the degree to which these factors are decisive depends on the conditions a firm (bank or nonbank) operates in. Severe price competition or the threat of a hostile takeover exert extra pressure towards leveraging to save costs. On balance, specific banking factors provide a clear incentive to use a high share of leverage, as is shown by Table 1.

Historical perspective

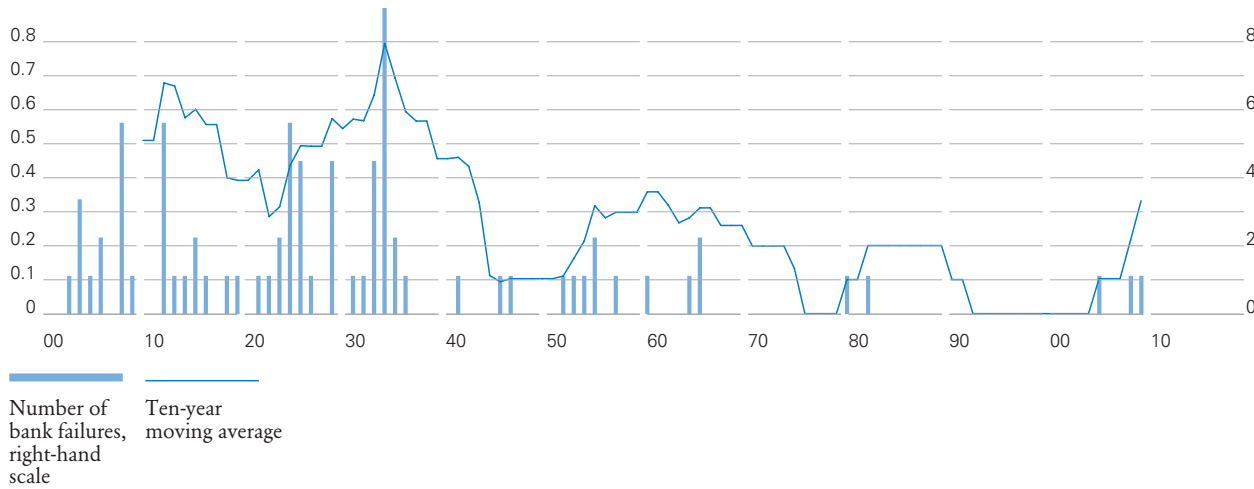
Chart 1 (top) shows the development of the leverage ratio – equity capital as a share of the balance sheet total – of the Dutch banking industry since 1900. Notably, equity capital dropped from about one-third of the balance sheet total at the start of the 20th century to less than 5% in recent decades. This puts the leverage ratio clearly below the risk-based solvency ratio that is pivotal to solvency supervision.²

The long-term trend of increasing leverage was interrupted during the nineteen-thirties. This period of de-leveraging cannot be seen in isolation from the

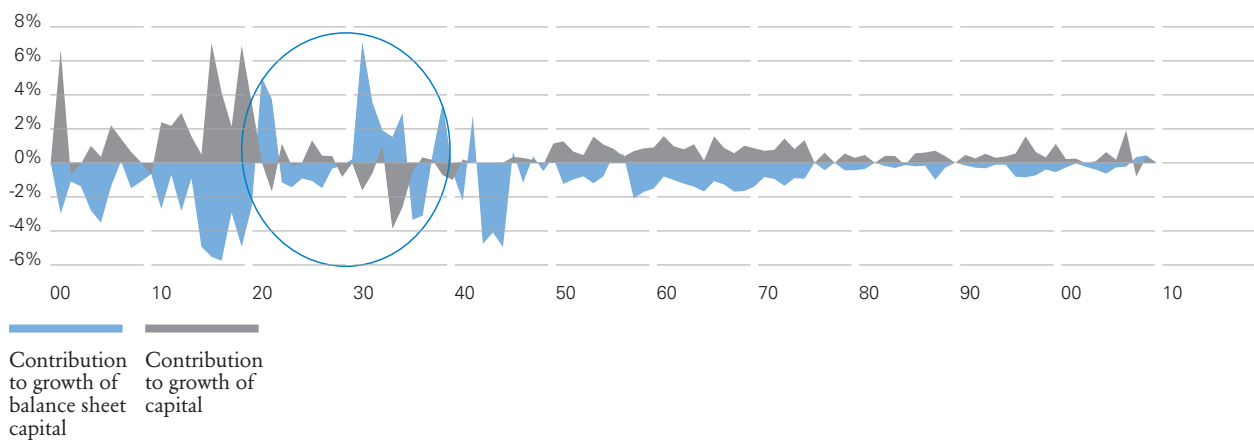
Chart 1 Leverage ratio and several environmental factors



Bank failures



Decomposition of leverage ratio: balance-sheet total versus capital



Source: DNB.
 Explanatory notes: Up to 1982, the figures relate to the subclass of 'commercial banks', afterwards to all banks and from 1990 to the consolidated business. The series includes several breaks (1946, 1950, 1976, 1978, 1982),

of which only two are substantial: 1976 (downward) and 1982 (upward). The leverage ratio is defined as own funds (capital plus reserves) as a share of the balance sheet total.

global economic crisis that had erupted in 1929. The Dutch economy received its blows as well: soaring unemployment, negative economic growth and deflation (see also the article entitled ‘The differences between the 2010s and the 1930s’ elsewhere in this Quarterly Bulletin). Bank lending declined strongly, turning negative, in fact, for several years.

The same general picture emerged in other countries such as the United States. Although the forces driving the changes in banks’ financial structure at any moment are hard to identify exactly, a comparison with other historical developments suggests the presence of some of the abovementioned factors.

General factors

In the early 20th century, the number of bank failures was substantially higher than in the subsequent period (Chart 1, middle), creating a more unfavourable risk profile. This may have given savers and other depositors reason to demand higher equity capital buffers than during the post-World War II period. Especially during the 1920s, the Netherlands were beset by banking problems, following years of buoyant growth. Another element was that most banks in the early 20th century were small-scale, strongly specialised and active within a small geographical area. This made them vulnerable to setbacks in their own niche market, while they faced limited competition. Through the years, the banking industry consolidated on an ever larger scale, leaving a small number of dominant players offering a broad range of financial services. These large institutions compete against each other and increasingly against foreign institutions, presumably intensifying the disciplining influence of financial markets on banks’ financial structure.

As regards other determinants of the financial structure, it is less clear whether they helped to set or sustain the identified trend. On the one hand, the relatively favourable tax treatment of debt has no doubt influenced the financing structure. Yet on the other, this situation has existed for a long time and does not in and of itself explain the *continued* trend towards ever higher leverage.

Specific banking factors

During the period under review, safety nets have become increasingly important. Initially, there was only DNB as the lender of last resort, a facility that until the early 20th century was hardly ever used. This changed during the 1920s, with the 1924 rescue of the Rotterdamsche Bank Vereeniging (Robaver) – one of the largest banks in its

time – as a prominent case. Initially, DNB provided only liquidity support. Subsequently, however, further steps were taken including guarantees and a coordinating role in a rescue operation involving a banking consortium. Notably, the authorities referred explicitly to the interest of the general public, which arguably makes this the first example of a rescue operation motivated by the ‘too-big-to-fail’ argument. Although the crisis was initially followed by a period of deleveraging, the intervention in the 1920s may have helped to create the perception that in the end, big banks will always be rescued. Another safety net, the deposit guarantee scheme, was introduced as late as 1978 in the Netherlands, in contrast to e.g. the United States, where it had been in operation since the 1930s.

In tandem with the safety nets, the role of banking supervision has become ever more prominent. Until the second World War, this had been marginal at best, with DNB informally exercising ‘paternal oversight’. During the 1930s, however, a growing need was felt to obtain a tighter grip on developments in the banking community. In 1932, DNB made a gentlemen’s agreement with the banks, the latter undertaking to report financial figures on a quarterly basis. If the need arose, DNB would ask for additional information, and if developments provided grounds for concern, urge policy adjustments. DNB’s annual reports of those years refer explicitly to the increased concentration in the banking industry and the ensuing need to obtain a better perspective on banks’ policies. Also in the 1930s, politicians first advocated formal supervision for banks. In 1937, a State Banking Commission was created to explore possible ways to implement this. After the War, the 1948 Bank Act provided for a formal supervisory duty.

Lessons from the credit crisis

The increasing leverage applied by banks through the years may be associated with several determinants of the financing structure of companies in general and that of banks in particular. At the same time, the crisis has brought the realisation that the current degree of leverage has made banks too vulnerable. Moreover, the degree of leverage has in the recent past been even higher, in fact, than appears from this article, if banks’ exposures excluded from the balance sheet and arising from financial instruments (‘embedded leverage’) were fully accounted for. Such exposures are difficult to quantify.

The Basel Committee on Banking Supervision has proposed a tightening of the international minimum

standards for solvency and liquidity. Its proposals have been published in outline last December and are currently being elaborated into concrete plans.³ One proposal is for a measure of the ‘leverage ratio’ that should be seen as a backstop in case the risk-based Tier 1 ratio is unable to halt the growth of leverage. Another proposal is to implement solvency requirements in a way that in good times provides an incentive to banks to build additional buffers to be drawn down in bad times. This will curb procyclical behaviour in banks by which they may reinforce an economic downturn.

Meanwhile, international work is going on towards measures that should prevent banks from receiving perverse incentives to take unjustifiable risks – as through excessive leveraging. One such measure could be a change in the set-up of safety nets, for instance by imposing additional requirements on systemic banks or by funding deposit guarantee schemes from pre-levied risk-based premiums. Another example regards crisis control, where authorities could be given powers and instruments to curb the rights of bank shareholders in an emergency, thus encouraging them to be more alert to their bank’s risk profile.

The proposals are perceived by some as far-reaching and a threat to post-crisis recovery. These concerns are to some extent justified, implying that these measures should be introduced carefully and gradually. Nevertheless, when looking at banking developments in a historical perspective, one must conclude that leveraging has overshot its mark and that there is a need for higher risk-mitigating buffers. DNB has therefore advocated the proposals in various international forums.

¹ It should be remembered, however, that solvency requirements do not address the ratio between equity capital and borrowed capital itself: they accept certain non-equity titles as capital, such as subordinate loans, and take the risk profile of assets into account.

² Only part of the least risky assets counts towards the capital ratio in determining a bank’s capital requirement. In addition, the capital ratio is based on a broader definition of capital, which also includes – up to a point – so-called ‘hybrid instruments’. These assets, which exhibit traits of both equity and borrowed capital, must satisfy specific requirements ensuring their value in absorbing losses. The main element of this ratio is the ‘Tier 1 ratio’, based on relatively high-quality assets.

³ See also the article entitled ‘Adjustments to the Basel framework for banking supervision’ in the December, 2009 Quarterly Bulletin.

Differences between the 2010s and the 1930s

Although the problems in the financial sector this time around have been more serious and the downturn more severe, the recovery has set in faster than in the 1930s. This time, a more active policy response absorbed the first shocks. However, the sustainability of the recovery is surrounded by major uncertainties. Many developed countries face long and difficult adaptation processes, while the policy measures taken have themselves created new risks. The uncertainties are also manifesting themselves in renewed unrest on the financial markets.

More severe financial problems and steeper fall than in the 1930s

When the credit crisis began in summer 2007, comparisons were soon made with the Great Depression in the first half of the 1930s. Then, too, the US was the epicentre of a financial crisis in which stock markets worldwide slumped and banks across the world failed. As a result, economic activity fell for several years in succession. How differently things are progressing this time around: the global economy has been picking up again since the second half of 2009, and the economic contraction in most developed economies has so far been restricted to one year. These differences in the way the two financial crises developed are striking for several reasons.

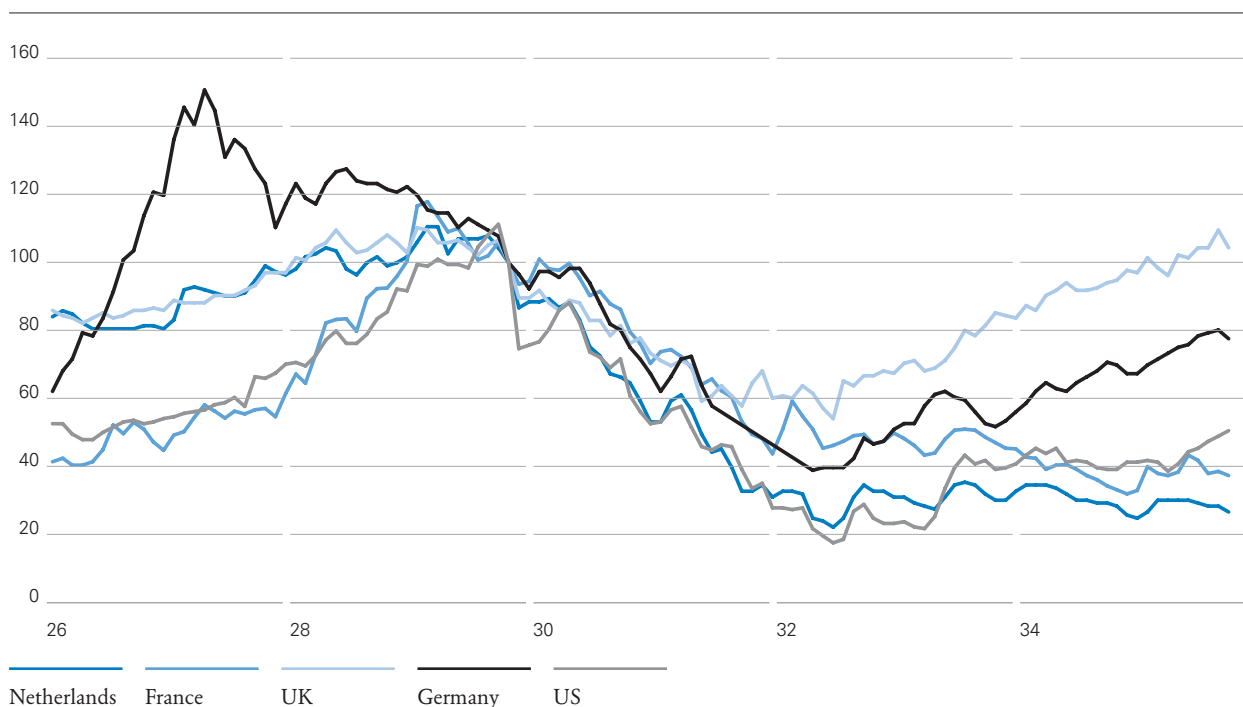
The present shock to the system is in many ways more severe than that of the 1930s. In the period from the onset of the credit crisis in summer 2007, when interbank money markets first began to falter, up to the low point in March 2009, stock market prices in the US and most other developed countries plummeted by around 50 per cent. The fall in stock market prices at the start of the Great Depression was less steep, while the phase differences between countries were bigger

(Chart 1). During the present credit crisis, prices not only fell in the equity markets, but also in many credit and housing markets, whereas eighty years ago house prices did not begin falling until the Depression had reached an advanced stage. The risk premiums on higher-risk corporate bonds also started rising at a later stage of the Depression.

The origins of the present credit crisis lie in unbridled mortgage lending, especially in the US. In a fragile financial system, an apparently manageable problem in a subsegment of the US mortgage market, which manifested itself after the price correction in the US housing market, grew within a short space of time into an international banking crisis. Shortly after the onset of the credit crisis, in the second half of 2007, it seemed that the problems in the banking sector were due primarily to a lack of liquidity in the various market segments. As asset prices fell further in 2008, however, the solvency of the banking sector became increasingly undermined. Banks across the world were forced to make huge write-downs on their US mortgage books, structured products and investment portfolios. These in turn plunged the international banking industry into major problems as early as mid-2008, when the damage to the economy as a whole was still limited; a year after

Chart 1 Stock market performance in the 1930s

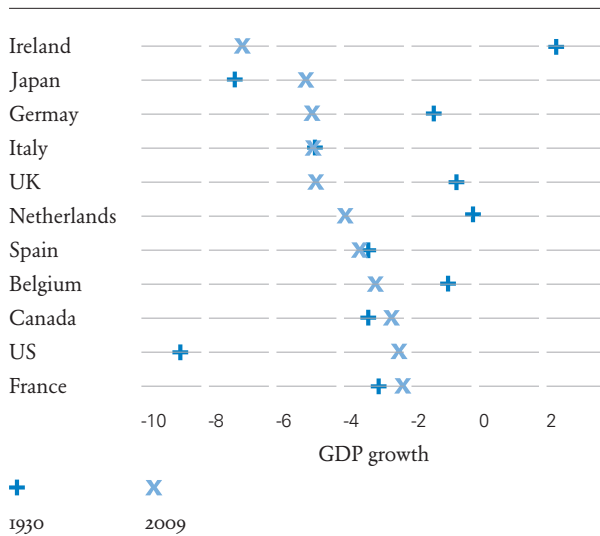
Index (October 1929 = 100)



Source: C.P. Kindleberger, (1973) World in Depression.

Chart 2 Fall in GDP

Percentage change



Source: Maddison and OECD.

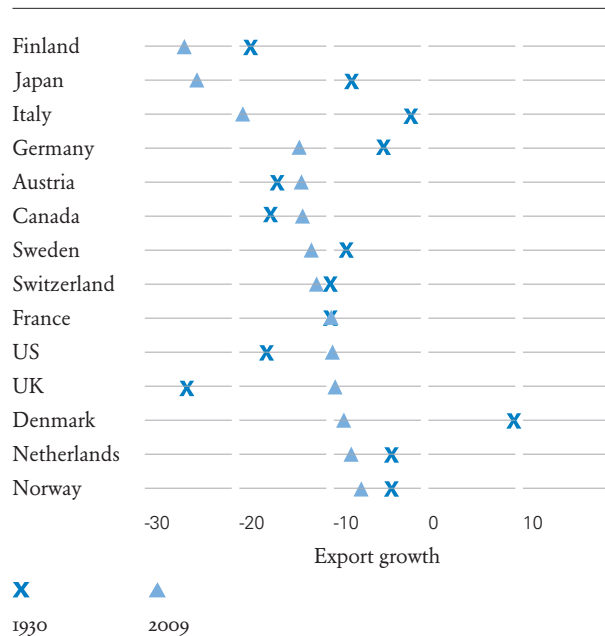
the outbreak of the credit crisis, most economies had been in recession for only one or two quarters.

During the 1930s, the causal chain operated in precisely the reverse direction: the banking problems arose as a result of the persistent economic malaise. The first American banks got into difficulties in December 1930 after GDP had already fallen dramatically, while the American banking crisis did not peak until autumn 1933, by which time GDP had shrunk by 25%. European banks also started experiencing heavy weather at a later stage than in today's crisis. Back then, the European banking crises, which occurred primarily in Central and Eastern Europe, were sparked off by a large-scale flight of short-term capital, reflecting investors' concerns about central banks' willingness to stick to the Gold Standard (whereby national currencies could be exchanged for gold at fixed rates) during a long-term economic malaise.

The fall in production was also steeper at the start of the present credit crisis than in the 1930s, while also affecting the entire world economy within the same short timespan; within the space of six months, during the final quarter of 2008 and the first quarter of 2009, GDP in all developed economies fell by several percentage points. The fall in GDP in 2009 was in fact greater in many countries than in the first year of the Depression in 1930 (Chart 2), not least because of the acute international trade finance problems, particularly at the height of the credit crisis in the months following the failure of Lehman Brothers in September 2008. However, the fact

Chart 3 Collapsing exports

Percentage change



Source: OECD and UN.

that growth in so many countries fell both simultaneously and so sharply was caused mainly by global panic: the huge uncertainties prompted households and businesses to give priority on a massive scale to building up extra financial buffers. Sales of cars and capital goods collapsed in many countries, while stocks piled up. The globalisation of production chains meant that this sudden disappearance of demand was felt across the globe. Major exporting countries such as Germany, Japan and the Netherlands were hit particularly hard. Overall, global trade volumes fell by no less than 12% in 2009.

In 1930 the differences between the extents to which countries experienced falls in their exports were much greater than in 2009 (Chart 3). Many countries, however, managed to limit the damage in 1930, with the result that world trade fell less sharply (down 7%). The panic-driven loss of demand at the start of the Great Depression was restricted to US households and businesses. Since most consumer discretionary and capital goods were manufactured in the US, American industrial output fell by almost 20% in 1930. The international impact of this panic attack, however, was limited because the global economy was less integrated than it is today. Indeed in Europe, the economic cycle initially appeared to be proceeding 'normally'.

Policy mitigated initial shocks this time around

Today, in 2010, the contraction of most developed economies has so far been of limited duration. Countries such as the United States, Germany, France and the Netherlands have already been posting positive growth figures again for several quarters. In the first half of the 1930s, however, the economic downturn spanned several years in succession (Chart 4). The damage to the stock markets this time around has so far also turned out to be much more limited in scope. Although share prices have recently been falling again due to concerns about public finances in Europe, stock market indices are still substantially above the low points seen in March 2009.

According to many observers, an important reason for the length and depth of the Great Depression lay in the inadequate response by policymakers of the day. The latter wrongly assumed that the economy would right itself again quickly. They therefore failed to prop up demand and made no attempt to reverse the strong deflationary trend. Governments continued to strive for balanced budgets, while central banks were determined to stick to the Gold Standard at any price. In October 1931, for example, right in the middle of the Depression, the Federal Reserve raised interest rates in order to put an end to the speculation which, it feared, would drag the dollar away from the Gold Standard. The Fed also looked on passively as one third of American banks failed. European countries that kept faith with the Gold Standard for a long time, such as the Netherlands and France, also faced severe deflation due to restrictive monetary policies.

Deflation derailed the economic process in many countries in the 1930s, as many households deferred purchases in anticipation of further price falls. This collapse in demand, combined with falling sales prices, hit business income hard. Companies quickly got into financial difficulties because it was not easy to cut wages, while payments of interest and principal involved fixed nominal amounts. In many countries, this triggered a negative spiral of loss of demand, financial difficulties for businesses, lay-offs and financial hardship in households. The banking crises, caused by the financial problems in the private sector, led to a further deepening of the Depression, especially in the US.

The turnaround in the US came in 1933, when the newly elected president Roosevelt decided to devalue the dollar against gold. This brought a halt to American deflation. European countries that stuck to the Gold

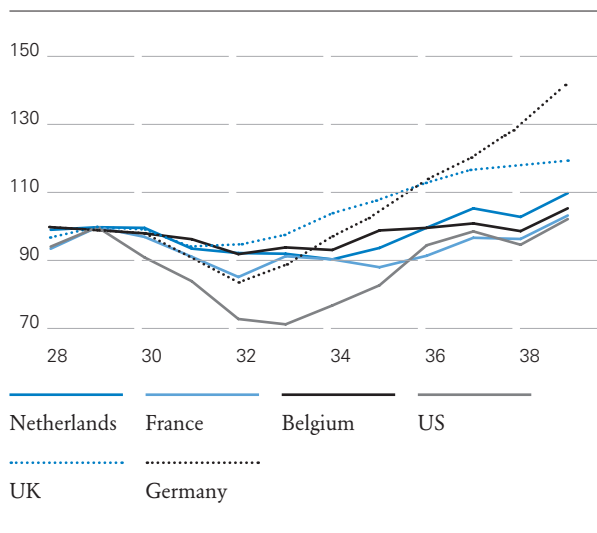
Standard, such as the Netherlands and France, went through a deeper recession than countries such as the UK, which had abandoned the Gold Standard in 1931. Leaving the Gold Standard provided a considerable monetary stimulus for the economy. In the second half of the 1930s, there was a further de facto stimulus from most governments in the form of increased military spending due to the rising international political tensions.

With the events of the Great Depression in the back of their minds, today's policymakers were quick to recognise the risks of a further deepening of the downturn and adopted a completely different approach. Monetary policy was used more actively to mitigate the economic downturn and to combat deflationary risks. Official interest rates were cut drastically in most of the developed world to their lowest levels since the Second World War, while several central banks opted for further monetary relaxation by including fixed-income (government) paper in their balance sheets. In contrast to the 1930s many regions also used budgetary policy to support demand. Lastly, the financial system was provided with support on a very large scale during the credit crisis, with liquidity injections by central banks, capital support from governments and higher guarantees on savings deposits keeping the number of bankruptcies and insolvencies within limits.

As in the 1930s, it will be a long time before a definitive opinion can be formed on the policies adopted to

Chart 4 Growth performance in the 1930s

Real GDP index (peak prior to depression = 100)



Explanatory note: Countries with dotted lines abandoned the Gold Standard in 1931.

Source: Maddison.

address the current crisis. However, the initial impressions are that the present, more active policy response has helped prevent a deep, downward spiral, thus enabling the recovery in most developed countries to set in more quickly than in the 1930s. A key factor in this respect is that both consumer and business confidence levels have increased markedly since their low point in March 2009, and that deflationary risks in almost all developed countries are now largely under control. Policymakers in developed countries have also had luck on their side in turning around their economies because many emerging economies have continued to grow almost without interruption. As a result, demand for imports in the emerging economies has provided a major growth stimulus for the developed world, whereas no such supporting factor existed in the 1930s.

New risks in the 2010s

The active policy response has, however, created new risks of its own. National debt levels in many countries, for example, have risen very rapidly due to high budget deficits and the support provided to the financial sector. This has recently led to renewed unrest in the financial markets, which has been fuelled by doubts about the creditworthiness of governments and their political will to implement radical policy measures to reduce the deficits. Governments will only be able to regain the markets' confidence by energetically setting about consolidating their public finances. These 'exit' risks were entirely absent in the recovery phase of the Great Depression, when there was still ample scope for governments to boost their economies through lower policy rates.

In addition, the underlying structural problems have not yet been adequately addressed in many countries. A difficult process of adjustment is still needed if competitiveness is to be strengthened and overcapacity reduced. Households are still cautious about spending because of the weak labour market and the financial losses they have suffered due to lower house and share prices. The financial sector is also by no means fully back on track. Banks will need to continue strengthening their balance sheets in order to be prepared for the present credit risks on loans to private and public sector borrowers, as well as for stricter capital and liquidity standards.

Time will also tell whether the world has managed to avoid another policy error from the 1930s. Then, global trade suffered severe damage due to a wave of

protectionist measures, especially by those countries that stuck to the Gold Standard. These included the Netherlands, which raised import tariffs in the early 1930s and imposed strict import quotas. This led to a slump in world trade volumes, which hit a low point in 1932 of 30% below their 1929 level. Today, global imbalances and artificial exchange rates mean that disruption to the international political climate (including in the field of trade) is also a risk that cannot be ignored. If countries keep their exchange rates artificially low, this could prompt other countries to start protecting their own industries. The willingness to engage in international cooperation will also be tested if countries that have been living beyond their means and are struggling under high levels of external debt offload some of the burden of change onto other countries through higher inflation or substantial write-offs.

The sustainability of the present recovery is surrounded by major uncertainties. Experience from the 1930s can serve as a warning here. At the start of the Great Depression, the US was also assuming a rapid economic recovery, just like today. This view appeared to be borne out by the short-lived rally in share prices in the first half of 1930. It was not until the end of 1931 that the realisation dawned that the downturn could last considerably longer. Therefore, although the initial shocks have been dealt with well in the present crisis, the current upturn does not provide any guarantees for the future.

Reinforcing fiscal discipline in the euro area

Fiscal discipline is hugely important for the European currency union. The European debt crisis shows that countries have not adequately fulfilled their responsibilities in this area. Compliance with and enforcement of the rules need to be improved – first at national level, then at European level. Responsibility for sustainable fiscal positions must be embedded in national legislation, along with the practical elaboration of adequate fiscal procedures to achieve this. Enforcing the use of realistic assumptions for fiscal plans, better integration of these plans in the national fiscal process and the automatic imposition of low-level sanctions would strengthen the Stability Pact.

Introduction

The credit crisis led to a sharp deterioration in public finances. This escalated in Greece to a debt crisis, which threatens to drag down other countries as well. Before the end of this year, a task force made up of member states, the ECB and the EU presidency will put forward measures aimed at strengthening the legal framework of the Stability and Growth Pact (SGP). To start the process, the European Commission recently published the document *'Reinforcing economic policy coordination'*. This document looks in broad outline at reinforcing the SGP, addressing macroeconomic imbalances and setting up a crisis management framework. By way of contribution to this discussion, in this article DNB sets out its view on preventing and correcting fiscal imbalances and improving market discipline. In line with the approach taken by the European Commission, the emphasis is on measures that can be realised quickly within the SGP, without the need for amendments to the Treaty on the Functioning of the European Union (the Treaty). In the longer term, of course, the Treaty itself could also be amended.

Fiscal discipline and EMU

The policy model for Economic and Monetary Union (EMU) consists of a central monetary policy in combination with coordinated national fiscal policy. The importance of fiscal discipline and an effective stabilising function of national fiscal policy was recognised right from the start, as a means of preventing irresponsible fiscal policy in one euro area country leading to higher interest rates in all euro area countries, and to make it easier to adapt to country-specific economic developments. This is important because, once a country has introduced the euro, nominal devaluation of the national currency to bring about a temporary improvement in competitiveness and alleviate fiscal pain is no longer an option. This means that healthy trends in wages and costs are also crucially important. The Treaty contains provisions aimed at guaranteeing fiscal discipline. Those provisions seek to prevent excessive budget deficits (maximum 3% of GDP) and high levels of public debt (maximum 60% of GDP) and to prohibit direct monetary financing by the ECB, privileged access for the public sector to financial institutions and bailouts by other member states. The purpose of these three prohibitions is to ensure that governments – just like private enterprises – are fully

exposed to the disciplines of the market when raising finance.

The fiscal rules are worked up in detail in the Stability and Growth Pact (SGP). The preventive supervision by the European Commission and the Council of Ministers is based on national programmes in which member states indicate how they intend to balance their budgets in the medium term, or to keep them virtually balanced. It also contains a detailed description of the sanction procedures for countries that fail to comply with the rules. When the SGP was reformed in 2005, the possibility of longer adaptation pathways was created – a possibility that has been used given that 13 of the 16 euro area countries have excessive budget deficits.

The importance of fiscal discipline has also grown because national debt is increasingly in foreign hands. For example, whereas 20% of the total national debt of the Netherlands was in foreign hands in 1998, this percentage had risen to 62% in 2008. The percentage of total national debt that is in foreign hands is between around 40% and 80% in virtually all countries in the euro area. In addition, a major part of the national debt is in the hands of financial institutions. The growing international interdependence of the markets for government debt has led to efficiency gains, but has also increased the risk of 'contagion' whenever doubts arise about the refinancing of the national debt of one country. This then rapidly leads to a systemic risk for the euro area as a whole.

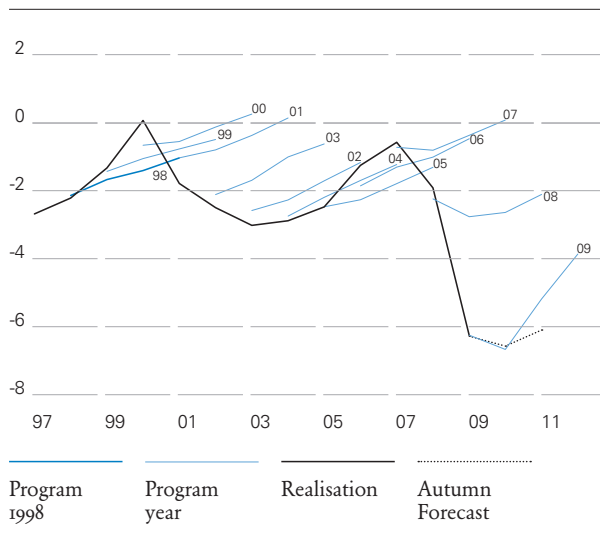
Preventing fiscal imbalances

What is the problem?

To prevent fiscal imbalances, European governments are required under the SGP to formulate plans to balance their income and expenditure. However, there is no mechanism for enforcing the implementation of these plans. Although the Commission and the Council have the power to issue an early warning where countries are making insufficient progress towards achieving a balanced budget, in practice virtually no use has been made of this power. An underlying problem is that the economic forecasts underlying the fiscal plans are used in some countries as a political tool. The aim is then not to publish realistic forecasts, but to express optimism about the country's economic development.

The combination of overly optimistic growth forecasts and excessive spending explains why the fiscal plans in the euro area are generally far too optimistic; see Figure 1. The red lines indicate the fiscal plans of

Chart 1 Fiscal plans versus outcomes under the SGP
Percentage of GDP



Explanatory note: euro area based on twelve countries.
Source: European Commission, Spring Forecast 2010 and fiscal plans on the basis of the various national stability programmes.

the euro area countries. These plans have been aggregated for the euro area as a whole and are shown in terms of the EMU balance, i.e. the difference between income and expenditure. The plans show the same picture across the years, with deficits shrinking towards a balanced budget. The thick black line shows the actual outcomes for the EMU balance, and merges with a blue line showing the projections. The outcomes bear little relation to the plans. They hit a first low point during the recession of 2002-2003, before subsequently sinking to unprecedented lows during the credit crisis.

Embedding responsibilities at national level

Within the currency union pursuing a disciplined fiscal policy is a national responsibility. The goal of sustainable fiscal positions and the compliance with and enforcement of this goal, must therefore be embedded in national legislation. This would be a demonstration that countries are taking seriously their responsibility to make monetary union a success. In addition, the Treaty already contains a stipulation that national fiscal procedures must enable countries to comply with their Treaty obligations. However, this stipulation has not yet been worked up in specific detail. A commitment to this explicit embedding and detailing in national legislation needs to be included in the Stability Pact.

Independent forecasts; stronger national fiscal institutions

The results of research offer pointers for working out the specifics of the foregoing point. The highlighted problem of overly optimistic forecasting does not occur in countries where the economic scenario is compiled by an independent institute. This is a strong argument for compelling countries to base their budgets on the scenario produced by an independent national institute, such as the Netherlands Bureau for Economic Policy Analysis (CPB) in the Dutch case or, where such an institute does not yet exist, by the European Commission. The problem of expenditure overruns could also be addressed by setting conditions for the enforcement and monitoring of national spending rules. Finally, the debate rightly devotes a good deal of attention to ensuring the quality and independence of national statistical agencies, with a view to avoiding the deliberate reporting of overly optimistic figures to the Commission.

The result should be that the fiscal plans reported to the Commission in the future not only show a trend towards a balanced budget, but are also fully embedded in the national fiscal process. The stability programmes must be adopted by the national parliaments, based on independent forecasts and supported by concrete measures. Early identification of deviations would initially be carried out at national level by the independent forecasting institute, e.g. CPB in the Netherlands, while the ex-post accountability could be strengthened through the existing supervision by the national courts of audit. These institutes could then inform the European Commission if enforcement at European level is necessary.

Preventive supervision becomes full-scale fiscal rule

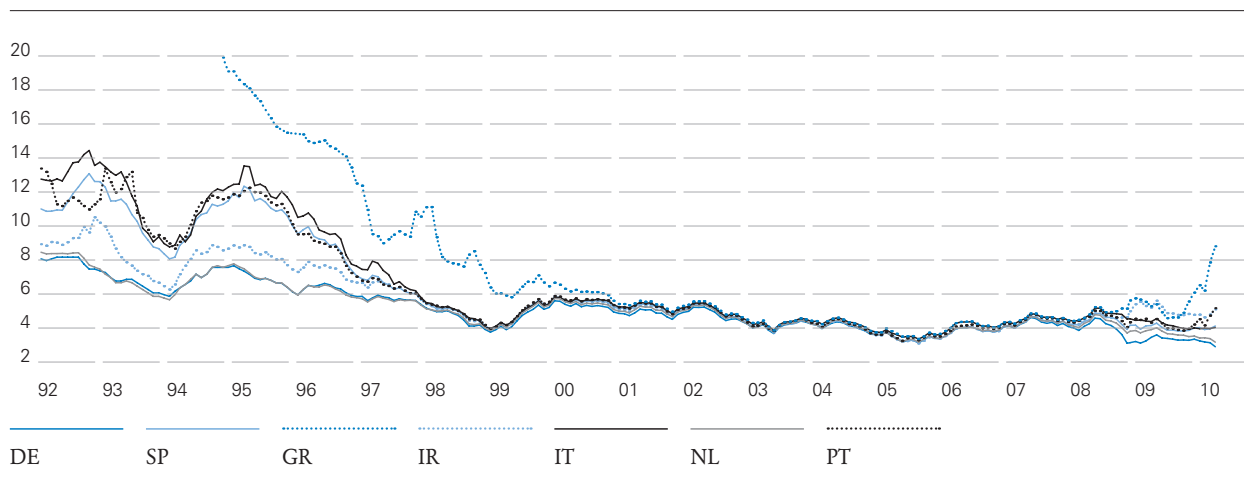
Improvements are also needed at European level in order to instil greater fiscal discipline. To address the problem of inadequate preventive supervision, substance needs to be given to the early warning system, and the preventive section of the SGP could be transformed into a full-scale fiscal rule. An enforcement mechanism needs to be created for the plans from the stability programmes, in line with the Commission's proposal. The supervision should then be tightened up further, starting from a deficit of 3% of GDP or in the event of an excessively high national debt.

Criteria for financing national debt

The case of Greece shows clearly that a high national debt can trigger doubts about the refinancing of that debt. This in turn can jeopardise the financial stability

Chart 2 Capital market interest rates of some euro countries

Percentages, 10-year government bonds



of the euro area. Financing the national debt should therefore be incorporated in the regular fiscal supervision of the European Commission. The transparency of debt financing operations also needs to be improved. At present, for example, there is no oversight of countries that use innovative financial strategies to finance their national debt. Various indicators ought to be examined for countries with high levels of debt, such as the annual public borrowing requirement, the sensitivity to shocks to the system and unusual financial transactions.

Market discipline

What is the problem?

The discipline of the market is insufficiently preventive. As figure 2 shows, the differences in ten-year interest rates between the euro area countries have been virtually nil since the launch of EMU compared with the preceding period. To some extent this reflects the disappearance of the devaluation risk from the euro area countries, but the remaining very small interest rate spreads hardly reflect the underlying differences in fiscal discipline. Since the collapse of Lehman Brothers in September 2008, the financial markets have begun punishing unbalanced public finances in the euro area much more severely, though it remains to be seen whether the markets will continue to make this distinction in calmer periods.

Improving market discipline

The crisis has demonstrated that supervisory authorities and central banks will over time have to draw a greater distinction between government bonds with differing credit risks. That will also strengthen the incentive for preventive market discipline. For supervisory authorities, this means that the requirements set for the capital and liquidity buffers¹ held by banks will have to be configured in such a way that holding relatively high-risk government paper is made less attractive than holding paper issued by a country with stable finances. Central banks will have to do the same thing when valuing collateral offered by banks. This is a logical step, since if the supervisory standards make little or no distinction between government paper from different countries, banks will be inclined to buy the riskiest paper – with the highest yield – thereby undermining the discipline of the market.

Correcting fiscal imbalances

What is the problem?

The European fiscal rules are aimed at prevention, but also allow fines to be imposed on countries that do not comply with the rules. The problem is that those fines are not credible. They were intended to act as a kind of atom bomb, forming such a deterrent that everyone would want to stay out of the danger zone. In practice, however, when countries did enter the danger zone, it turned out that there was a lack of political willingness actually to apply the sanctions. The result was a

relaxation of the SGP (2005) and the creation of longer adaptation pathways to defer the moment at which sanctions would be applied.

Solution pathways

A first option would be to tighten up the fiscal supervision, starting from a deficit of 3% of GDP or an excessive level of debt. Unlike at present, a European team of experts would immediately have the authority at that point to investigate the fiscal situation in detail. These experts would have to be given access to all information and would publish a detailed report with recommendations. This phase could also be accompanied by a stricter duty to provide information to the Council, thus increasing transparency.

A second option concerns the Structural Funds and Cohesion Funds that the EU makes available to member states. The Cohesion Funds already carry a provision that they may be partly or wholly frozen if a country with an excessive deficit fails to take effective action. Such a provision could also be added to the Structural Funds. One option would be to withhold a small percentage of the funding automatically as soon as a country's deficit exceeds 3% of GDP, with that percentage gradually rising as the deficit increases. The underlying idea is that countries with excessive deficits jeopardise cohesion in the currency union and should therefore receive less money from these Funds.

Crisis management

The SGP was designed to prevent a debt crisis from occurring. When such a crisis actually arose, Europe therefore had no mechanism to address it. The European Council recently created a temporary mechanism for providing joint EU/IMF support and ultimately intends to move towards a permanent crisis management framework. As the European Commission has also suggested, it would make sense to incorporate experiences from the temporary mechanism in this framework. It is in any event important for the credibility, conditionality and enforceability of a support programme that the IMF should be given a role in the permanent framework, similar to its role in the temporary mechanism.

Conclusion

Fiscal rules can only be effective if politicians consider it important to adhere to these rules. Merely tightening

up the rules is therefore not sufficient; what is needed is a change in the political mindset so that all governments are aware of the huge importance of fiscal discipline for the functioning of the currency union. This demands a willingness at national level to take sometimes painful decisions. In the European arena, governments must be willing to call each other to account where the rules are infringed and to attach consequences to this. Only then can the euro become a permanent success.

¹ Liquidity comprises bank assets that can be sold quickly, such as government bonds.

Payments: not only bank business

Through the years, more and more nonbank enterprises have sprung up in specific niches of the payment market. This is largely explained by cost saving measures at banks, progressive specialisation and technological developments. With an authorisation as a 'payment institution', a nonbank party may, in principle, act as independent provider of payment services to end users. The establishment of a Single Euro Payments Area, which has set new standards for payment systems in Europe, offers even better opportunities to such new arrivals. Of course, DNB's duty of care for the smooth operation of the payment system also extends to this new offshoot on the payment tree.

Nonbanks in the payment system

The payment system comprises both ‘home banking’, including credit transfers and direct debits, and point-of-sale payments with cash or cards. To make all such different payments possible, numerous things have to happen behind the scenes. Think, for instance, of restocking an ATM cash dispenser or manufacturing a debit card – which is then linked to the correct consumer with the right PIN and account number. At the time a payment is made or cash is withdrawn, the balance on the user’s account needs to be checked, and right after the transaction is made the consumer expects to see it on their Internet banking page. All such processes are part of the payment chain and together they make up the payment system. Many of the activities in the chain are outsourced by the banks to nonbank companies. But whereas nonbank companies are present all along the chain, the process can never be outsourced in its entirety. Certain links in the chain have to be provided by the financial institutions themselves, such as customer contacts or the verification of balances and transactions.

An inventory performed in 2009 shows that in the Netherlands, eight financial institutions, which cover the bulk of the payment system, employ the services of some 125 nonbanks. Many of these companies are active on an international scale. The services provided by nonbanks are diverse but usually highly specialised and often technologically advanced. Thus only the most highly specialised companies are able to deliver the desired level of sophistication. Examples are Internet checkout counters or Internet payment providers. They enable Internet retailers to receive electronic payments through them, often offering the buyer a choice of different payment methods. Thus they can save a great deal of effort for both the retailer and his bank. Specialisation also offers room for innovation, so that nonbanks are often able to offer faster processing. Other activities performed by nonbanks are, for instance, payment processing or security-related services: protecting a bank’s Internet banking environment, say, or manufacturing protected documents such as identity documents or payment cards. Credit card service providers have been around for many years in the payment market. They often leave the issue and acceptance of payment cards to banks or other companies.

One major factor underlying the growing importance of nonbanks is scale. In a sector involving many transactions and low margins, such as the payment system, it is essential to keep per-transaction costs

low. By outsourcing elements of the payment chain to specialised companies, a bank may save costs while continuing to provide the related payment services to their own customers. In some cases outsourcing is, in fact, unavoidable. One example is the need, already mentioned, for specialised security services and highly specific software and hardware owing to the upsurge of Internet banking and online shopping. This is an area where nonbanks play a major role. The employment of nonbanks offers financial institutions more flexibility and room to pay more attention to their core business.

Payments become European

European developments are changing the playing field for nonbanks. The adoption of the Payment Services Directive and the creation of a Single Euro Payments Area (SEPA) has made it easier for new players to enter the payments market. Many relatively small parties of a specialist nature find it difficult to enter a national market precisely because what they need is scale. The new regulatory framework and the introduction of SEPA has considerably enlarged the scale firms may operate on.

The establishment of SEPA means first and foremost that technical standards for making payments in euro will become identical throughout Europe. The payment instruments offered under these standards, i.e. the SEPA Credit Transfer, the SEPA Direct Debit and payment cards based on the so-called EMV standard (a chip protocol developed by Europay, Mastercard and VISA), have been introduced across Europe and will gradually replace the national payment instruments over the next few years. As the common standards make it easier for market parties to scale up, the types of service provision that aim to facilitate the handling of different national systems will grow less profitable.

The legal basis underlying the creation of SEPA is provided by the Payment Services Directive. The Directive harmonises the rights and obligations of both users and payment service providers in Europe, thus creating identical competitive conditions and enhancing competition on the national markets. The Directive also introduces a new type of payment service provider: the ‘payment institution’. Such an institution, which is subject to a specific authorisation regime, may provide payment services without being a bank. At this moment, some twenty nonbanks have applied with DNB for authorisation as payment institutions. Most of these, rather than being new arrivals, are existing money transaction offices, which under the new

legislation have come to fall within the definition of a payment institution. Authorisation as a payment institution may be applied for in every EU Member State. Once obtained, it confers the right to offer services throughout the EU. Thus parties do not have to apply for a Dutch authorisation in order to market their services here. The number of authorisations issued has been especially large in the United Kingdom.

To what extent nonbank parties authorised as payment institutions are to offer services that compete directly with those of banks is as yet hard to predict. So far, no payment institutions have registered with the European Payments Council in order to market SEPA-compliant payment products. The originally nonbank Internet payment service provider PayPal (which now holds a banking authorisation) has demonstrated that even under the old regime it was already possible for innovative players to enter the market successfully. Yet the low margins, the required scale and the two-sided nature of the market – since both buyers and sellers must be willing to use a payment product – are making it tough for new kids on the block to be allowed to play ball.

Potential risks

The inventory of activities outsourced by banks to nonbank parties, mentioned earlier, was also intended to identify potential – mainly operational – risks. Financial risks (liquidity or credit risks) involved in the use of nonbanks are limited, because in principle, banks will never be exposed financially to nonbanks. Nonbanks do not act as ‘counterparties’ in financial transactions of banks, for they never hold the assets involved. Some banks outsource many activities, in some cases several different activities to a single party. Other banks outsource fewer activities or do not outsource critical processes as a matter of policy. Institutions are free to make such choices, although they must ensure that the quality and continuity of the service provision are adequately guaranteed under service level agreements. Whether they do so is monitored by banking supervisor DNB. If many institutions use the same specialist service provider, this may give rise to concentration risk. This is especially evident in the case of payment clearing (determining and reconciling mutual positions between banks), the Dutch market for which is largely covered by the Dutch-German firm Equens, and of interbank financial messaging, which is handled by SWIFT. These processes, by their nature, cannot be

carried out by the banks themselves. Due to their systemic nature, they are subject to ‘oversight’, the type of supervision exercised over payment and settlement systems. DNB exercises oversight over Equens; because SWIFT is incorporated in Belgium, it is subject to oversight by the National Bank of Belgium, in cooperation with other central banks. Many banks also use the same service providers in the case of less critical processes. The risks are not such that specific supervision of such parties is deemed necessary. Apart from the individual outsourcing parties, the owner of the payment product also bears responsibilities here. This is the firm that issues licences to parties offering payment products to customers and which regulates the use of the payment instruments. The owner of Dutch payment products such as ‘incasso’ (the Dutch direct debit scheme) and PIN (Dutch debit card scheme) is Currence, which is itself subject to oversight by DNB. An example of how market parties arrange their own responsibility was the way they handled the increased numbers of errors occurring in the PIN payment chain in 2008. At the initiative of the banks, product owner Currence and the merchants, as acceptants of PIN payments, the parties involved in the chain were brought together to identify causes and bottlenecks and formulate solutions. As a result, errors have become less frequent, and when they do occur, the origin can be identified more quickly, so that targeted action may be taken.

Future

In future, the role of nonbanks in the payment system is expected to increase further. Technological developments and attending specialisation, plus the need for further cost saving in the banking industry, will continue. The creation of a single European market and the advent of payment institutions will impart further impetus to the process. DNB will therefore continue to actively monitor this dynamic process.

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- European price rigidity mapped out

Publications

De Nederlandsche Bank (DNB) began publishing a new series of research reports on 1 June 2004. This series replaces the DNB Research Reports, PVK Reports and PVK Studies and aims to disseminate research conducted by DNB employees. An overview of the Working Papers can be found on the DNB website, www.dnb.nl. Summaries of the 20 Working Papers published in the past six months are given below.

No. 249 – Trading off monetary and financial stability: a balance of risk framework

Jan Willem van den End

This paper presents a framework that quantifies the trade-offs for a central bank that includes financial stability in its strategy and uses macroprudential instruments next to the interest rate. It is an innovative application of the Kaminsky and Reinhart early warning method, by assuming that the central bank takes into account financial variables as signals of inflation risks. The empirical application shows that trading off monetary and macroprudential policy reduces the overall costs related to inflation and financial instability. This can be achieved by changing the preferences of the central bank, lengthening the monetary policy horizon and by a more flexible inflation target.

Estimation results of a probit model indicate that the monetary stance in the US and the Euro area has not adequately traded off price stability against financial stability.

Keywords: financial stability, macroprudential policy, monetary policy, policy co-ordination, inflation.

JEL classification: E31, E52, E61, G28.

No. 248 – Peer monitoring or contagion? Interbank market exposure and bank risk

F.R. Liedorp, L. Medema, M. Koetter, R. H. Koning and I. van Lelyveld

We test if interconnectedness in the interbank market is a channel through which banks affect each others riskiness. The evidence is based on quarterly bilateral exposures of all banks active in the Dutch interbank market between 1998 and 2008. A spatial lag model, borrowed from regional science, is used to test if z-scores of other

banks affect individual bank's z-scores through the network of the interbank market. Larger dependence on interbank borrowing and lending increases bank risk. But only interbank funding exposures to other banks in the system exhibit significant spill-over coefficients. Spatial lags for lending are insignificant while borrowing from other banks reduces individual bank risk if neighbors are stable, too. Vice versa, stability shocks at interbank counterparties in the system spill over through the liability side of banks balance sheets.

Keywords: Interbank market, bank risk, spatial lag model.

JEL classification: G21, L1.

No. 247 – Mean Reversion in International Stock Markets: An Empirical Analysis of the 20th Century

Laura Spierdijk, Jacob Bikker and Pieter van den Hoek

This paper analyzes mean reversion in international stock markets during the period 1900-2008, using annual data. Our panel of stock indexes in seventeen developed countries, covering a time span of more than a century, allows us to analyze in detail the dynamics of the mean-reversion process. In the period 1900-2008 it takes stock prices about 13.8 years, on average, to absorb half of a shock. However, using a rolling-window approach we establish large fluctuations in the speed of mean reversion over time. The highest mean reversion speed is found for the period including the Great Depression and the start of World War II. Furthermore, the early years of the Cold War and the period covering the Oil Crisis of 1973, the Energy Crisis of 1979 and Black Monday in 1987 are also characterized by relatively fast mean reversion. Overall, we document half-lives ranging from a minimum of 2.1 years to a maximum of 23.8 years. In a substantial number of time periods no significant mean reversion is found at all, which underlines the fact that the choice of data sample contributes substantially to the evidence in favour of mean reversion. Our results suggest that the speed at which stocks revert to their fundamental value is higher in periods of high economic uncertainty, caused by major economic and political events.

Keywords: mean reversion, market efficiency.

JEL Classification: C23, G14, G15.

No. 246 – The Forward Premium Puzzle and Latent Factors Day by Day

Kerstin Bernoth, Juergen von Hagen, Casper G. de Vries

We use futures instead of forward rates to study the complete maturity spectrum of the forward premium puzzle from two days to six months. At short maturities the slope coefficient is positive, but these turn negative as the maturity increases to the monthly level. Futures data allow us to control for the influence of an unobserved factor that can be decomposed into a contract-specific and a time-to-maturity effect. Once we do this, we find that the coefficients on the forward premium are much closer to one. The latent factor is shown to be related to conventional proxies of risk.

Keywords: forward premium puzzle, futures rates, latent factor.

JEL Classification: F31, F37, G13.

No. 245 – The safety of cash and debit cards: a study on the perception and behaviour of Dutch consumers

Anneke Kosse

This paper investigates the impact of consumers' safety perception on debit card and cash usage. A conceptual framework of safety perception and payment behaviour is introduced and tested with 2008 consumer survey data. The results demonstrate that consumers' payment preferences for cash and debit cards are strongly affected by how consumers assess the likelihood and seriousness of safety incidents related to cash, debit cards and ATM withdrawals. Risk aversion, personal characteristics and personal experiences all play a significant role. This study underlines the importance of effective safety measures, which minimise the risks inherent in the payment system, and of clear communication towards consumers, so that they may continue to pay efficiently and safely in all circumstances.

Keywords: debit card, cash, fraud, safety, payment behaviour, risk perception, risk aversion.

JEL Classification: C42, D12, E41.

No. 244 – IMF-Supported Programs: Stimulating Capital to Solvent Countries

Koen van der Veer en Eelke de Jong

Sovereign default is the switching state between successful and unsuccessful Fund catalysis. We find the IMF to be effective in mobilising private capital flows to middle-income countries that participate in a Fund program, but do not restructure their debt. A debt restructuring is a clear signal of very weak economic fundamentals, deterring creditors from resuming lending, even when the IMF intervenes. As long as default is avoided, IMF programs help a country signal its willingness to reform and repay debts, thereby catalysing private capital. This signalling role appears to be more important for Fund catalysis, than the size of IMF lending.

Keywords: IMF, Sovereign default, Private capital flows, Catalytic effect.

JEL Classification: F32, F33, F34.

No. 243 – Toward a Uniform Functional Model of Payment and Securities Settlement Systems

Ron Berndsen

The aim of this paper is to provide a uniform representation of functional concepts used in the field of payment and securities settlement systems. The framework developed here is encompassing the whole field while using as few elements as possible. It provides a basic functional model for analyzing and tracing the life cycle of the financial legs of a transaction. In line with the network properties of the field the model is based on formal graphs. The visualization of these graphs can be considered as a symbolic language. It is shown on the basis of a number of examples that the framework is capable of representing basic notions of payment and securities settlement systems.

Keywords: payment systems, securities settlement systems, settlement risk exposure, functional graph modeling, instruction life cycle, financial market infrastructures.

JEL Classification: E42, G10, G20.

**No. 242 – Momentum or Contrarian Investment
Strategies: Evidence from Dutch institutional
investors**

Leo de Haan and Jan Kakes

This paper analyses investment strategies of three types of institutional investors – pension funds, life insurers and non-life insurers – over the period 1999-2005. We use balance sheet and cash flow data, including purchases and sales of equity, fixed income and real estate. We trace asset reallocations back to both active trading and revaluations and link investment decisions to firm-specific characteristics and macroeconomic variables. Overall, our results indicate that all three investor types tend to be contrarian traders, i.e. they buy past losers and sell past winners. Especially pension funds showed this behaviour in the most turbulent part of the sample – the crash of 2002 and early 2003 – implying that these institutions have a stabilising impact on financial markets when this is needed most. Life insurers tend to be contrarian traders when they have a high proportion of unit-linked policies, while non-life insurers are contrarian when they have a more risky business model.

Keywords: Asset allocation, Investment strategy, Insurance companies, Pension funds.

JEL Classification: G11, G12, G22.

Publication of the Occasional Studies began in 2003. They aim to elucidate policy and analytical issues in areas relevant to DNB. An overview of the Occasional Studies, which are published in Dutch or English, can be found on the DNB website, www.dnb.nl. Below are summaries of the Occasional Studies published in 2010.

No. 1 (2010) - The performance of EU foreign trade: a sector analysis

Piet Buitelaar and Henk van Kerkhoff

In the last decades, countries have become more and more interdependent through trade, production and financial market linkages. Reduction in tariffs, lower cost of transport and the opening-up of formerly closed economies have resulted in an increase in international trade, encouraging a rapid integration of global economies. New players in the world economy, notably China, India, Russia and the Eastern European countries have changed the pattern of global trade considerably. Whereas the shares of the United States and Japan in global exports have been gradually falling between 2000 and 2008, China's share has more than doubled. China's share of almost 9% in world exports in 2008 exceeded that of the United States. The share of the European Union extra exports in world exports has remained more or less constant.

The European Union has been able to maintain its global market position. Obviously, the sectoral specialisation of the European Union meets the composition of international demand. This brings us to the subject of this study: an analysis of EU foreign trade. The first topic regards the performance of EU exports in relation to global exports. As an open economy, the EU may benefit from the growing volume of global economic activity. Whether this is realised depends, as a matter of fact, on its competitive position and the extent to which the composition of the exports package matches the composition of global demand. Second, the competitive position of the EU on its own 'domestic' market is examined, implying an analysis of EU imports.

As a methodology, the so-called 'Constant-Market Share analysis' (CMS analysis) is chosen. Given the objectives mentioned above and the data available, this methodology is applied to the external exports and imports of goods of the EU-15 as a whole, over the period 1999-2006. The year 1999 was chosen as a starting year,

because in this year the euro was introduced, which may have been a stimulus for the exports of the countries which have joined the Economic and Monetary Union (EMU). As many data for 2007 are lacking, the sample runs to 2006, thereby excluding the financial crisis. In 1999, the European Union included 15 countries. For that reason, the analysis was carried out for the EU-15.

The results of the CMS analysis can be summarized as follows. Generally speaking, the European Union has been able to maintain its market position fairly well. Exports of EU-15 have greatly reaped the fruits of the growth of world trade and have capitalised fully on globalisation. The composition of the export package of the EU-15 is oriented towards chemicals, machinery and transport equipment: the 'old economy'. With this product composition, exports are relatively well geared towards the demand of the new EU member states and to the non-EU European countries. Because of this, the EU-15 even has been able to slightly raise its share in global exports. By contrast, the product composition of EU-15 exports is less tailored to demand from East Asia, especially regarding electronics. Here EU-15 exports are underperforming. As to competitiveness, the EU-15 has lost some export market share in various sectors, such as electronics, transport and textiles, in non-EU Europe and East Asia. The results of the CMS analysis regarding imports indicate that on its own EU-15 market, competition from China, non-EU Europe and the new EU member states has intensified. China has achieved rising market shares in all sectors. This shows the strong position of China as a supplier of cheap products to European markets.

The remainder of this study is set out as follows. Section 2 offers some quantitative information on the product composition of exports and imports of the EU-15. Section 3 outlines the methodology of the CMS analysis of exports. Section 4 presents the findings on exports, followed by a discussion on the strengths and weaknesses of the composition of EU-15 exports. Section 5 discusses the methodology of the CMS analysis on imports. Section 6 shows the results of this analysis on imports. Finally, section 7 presents the conclusions.

No. 2 (2010) - Reinsurers as Financial Intermediaries in the Market for Catastrophic Risk

John Lewis

In a world of perfect markets, primary insurers could hedge catastrophic risks using financial instruments. In practice however, most primary insurers deal with catastrophic risk by the use of a financial intermediary—a reinsurer. This paper uses insights gained from the institutional economics literature on the existence of banks, to motivate the existence of reinsurers as financial intermediaries. Reinsurers can be motivated by the information acquired by the act of reinsuring, by their role as an efficient form of delegated monitoring, their ability to bear basis risk and to provide liquidity in the aftermath of a catastrophe.