



CPB Netherlands Bureau for Economic
Policy Analysis

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CPB Financial Stability Report 2014

*Risk report for the Dutch
House of Representatives*



CPB Communication

To: The Dutch House of Representatives

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1 Introduction

Following recommendations by the De Wit Committee, the Dutch House of Representatives requested CPB Netherlands Bureau for Economic Policy Analysis and the Dutch Central Bank (DNB) to report, at least once a year, on international and national macroeconomic developments related to the financial sector. In 2012, the first of these reports was presented to the House of Representatives. Starting point for the current report were our findings on financial market developments as reported in the Central Economic Plan (CEP) 2014. The analysis has been limited to a description of the main risks to the Dutch economy.

Main findings

Over 2013 and in the first months of 2014, financial market indicators showed increasing market confidence. The monetary policy of the European Central Bank (ECB), a new supervisory framework for European banks as well as the implemented measures for structural reform have contributed to this increasing confidence.

Despite the substantial improvements in stabilising the eurozone, the basis of the increasing recovery remains fragile. Debt reduction and limited credit availability in some parts of Europe (an inheritance from the financial crisis) are slowing down economic growth within the eurozone in the short term. In addition, financial market fragmentation is also a risk factor in economic recovery.

The improved macroeconomic situation, together with low interest rates, translates into a clear increase in confidence in European financial markets. Structural reform, consolidation of government debt, and the improved competitive position of countries on the periphery clearly restore the confidence of the international capital market in the governments of those countries. Compared to last year, the trend in declining risk premiums on government bonds has continued. Peripheral countries have returned to the market for government bonds and market confidence in their banks has increased strongly.

There are also a few downward risks, despite the fragile recovery. A watchful eye is necessary within the eurozone, because of the continued limited inflation. There are also risks outside the European Union. Further escalation of the political unrest in the Ukraine could affect the European banking sector; the prospect of a tighter monetary policy in the United States poses a risk to financing costs in the eurozone; and volatility on financial markets in emerging economies may directly affect the Dutch economy, due to the potential slowing of the eurozone economy.

The risk of financial instability, caused by banks getting into trouble, seems to have decreased. Compared to the pre-crisis situation, the capital position of the Dutch banking sector has improved and banks are making significant progress towards meeting the new capital requirements. Despite the high risk-weighted capital ratios, the leverage ratios remain relatively low, from an international perspective. Lowering the leverage is important for complying with future capital requirements. In addition to better capitalised banking, the possibilities for timely interventions by the Dutch Central Bank (DNB) or the Dutch Ministry of Finance also have been expanded.

The recession has led to mounting credit losses for banks. The year 2013 saw a record number of bankruptcies among companies, particularly causing an increase in credit risks related to business loans. The increase in the number of non-performing loans was largest among small and medium-sized enterprises (SMEs) and, to a lesser degree, also in the large corporate segment. However, losses originating from mortgage loans have been low, so far, and the share of non-performing loans within the mortgage portfolios of the Dutch banks has hardly increased. In 2013, the banks boosted provisions for their commercial real-estate portfolios. A DNB investigation concluded that Dutch banks have allocated sufficient capital to absorb both foreseen and unforeseen losses stemming from commercial real estate. From an international perspective, the number of non-performing loans in the total lending volume is only limited.

The deteriorating financial situation of households, combined with increased unemployment, has had a negative impact on consumption levels. Declining house prices have a strong, negative impact on consumption, because they induce consumers to save their money, which, in turn, slows down economic recovery. Growing unemployment is increasing people's sense of uncertainty about their income and their ability to service their mortgages. Although house prices are stabilising, this does not reduce the level of risk. Around 30% of households have negative equity (are 'underwater'), posing a potential risk to banks. Two-income households particularly form a risk group. They are most often 'underwater' and are faced with the highest interest rate charges relative to their level of income.

Demand problems and the financial position of SMEs are the main explanations for the decrease in the amount of credit granted to SMEs. Despite indications that point to the influence of credit supply limitations, it is not a decisive factor with regard to the decline in credit granted to SMEs. The Dutch banking system is sufficiently capitalised to meet the credit demand. This is projected to stay this way, also if the economy would grow faster than expected, as that

would make it easier for banks to increase their equity. On the demand side, the economic downturn appears to have reduced the need for both new and expansion investments. This has resulted in a reduction in credit applications, with some banks reporting a decline of nearly 50% compared to two years ago. In addition, the access to credit is made more difficult by the financially weak position of a number of SMEs.

Financial index numbers show the weakening financial position of a number of SMEs; particularly of micro-companies. Despite the crisis, the solvency index for SMEs, on average, has stayed at the same level, their liquidity is sufficient, and the average annual turnover is still growing. The rate of return on the total equity, on average, has been declining but still remains positive. However, SMEs are a heterogeneous group, and therefore generalisations about them doing well or badly 'as a group' cannot be made. There are companies in the various size categories that do very well and others that score badly for one or more financial index numbers. For example, some micro-companies score badly; over half are experiencing a declining turnover, an interest coverage ratio that is below the standard used by banks, as well as a declining solvency.

Because of the decline in bank credit to SMEs, alternatives to bank financing should be stimulated. Traditional alternatives, such as leasing, factoring or holding companies, are used relatively seldom. New alternative ways of financing, such as micro-financing, crowdfunding, credit unions and SME funds, are on the rise, but currently are only niche markets. Any further development of a wider credit market in the Netherlands would require improvement of the equity position of Dutch SMEs. Such a transition process, however, will take time.

2 Economic and political developments within and outside the eurozone

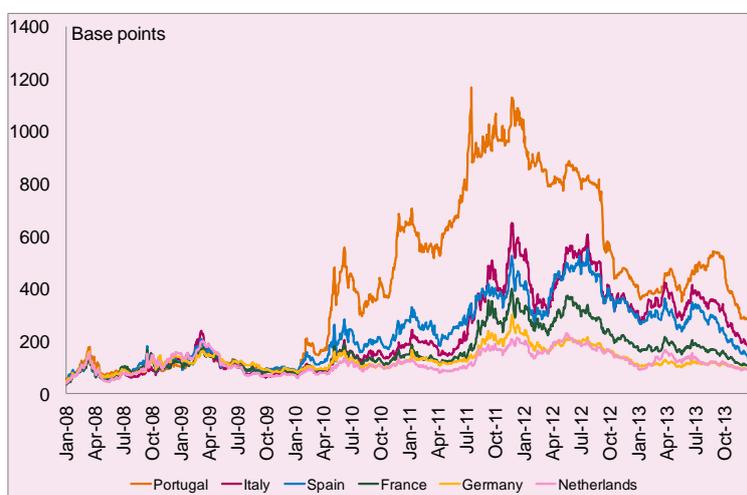
The eurozone economy shows a fragile recovery

The financial crisis has revealed the strong correlation between the financial sector and the real economy. An unhealthy banking sector poses a risk to governments, businesses and households, and vice versa. In response to the structural deficiencies of the European economy, national governments and European institutions have taken a large number of measures in order to guarantee the financial stability of the eurozone and to strengthen the EU's institutional framework. Over the past years, considerable progress has been made in stabilising the eurozone, with the first signs of recovery being visible today.

Despite this fact, the fundamentals of the emerging economic recovery remain fragile and further economic reform is needed. In the aftermath of the crisis, economic growth will continue to slow down for some time, due to debt reductions in both the private and public sector as well as by the limited availability of credit in parts of the European economy. In

addition, the diverging banking interest rates on loans and deposits between European countries (financial fragmentation) also continue to pose a risk to economic recovery.¹ The financing abilities of banks not only depend on balance sheet characteristics, but also on their country of domicile. Figure 2.1 shows that substantial differences between countries remain, despite the convergence of risk premiums. Therefore, financing, particularly for smaller banks in peripheral countries, remains a challenge. Implementation of the new EU framework of regulation and supervision is intended to further reduce financial fragmentation.

Figure 2.1 Risk premiums (CDS spreads) of EU banks



Source: Thomson Reuters Datastream.

Confidence in European financial markets increasing

Since the second quarter of 2013, positive economic growth has returned to the eurozone.² This also applies to the peripheral countries, narrowing the differences between core countries and peripheral countries. The improved macroeconomic situation, together with the low interest rates, can be translated into a visibly increasing confidence on European financial markets. The mid-2012 recovery appears to have continued in 2013, as a result of policy measures implemented by the European Central Bank (ECB), such as the *forward guidance* for monetary policy and the announcement of the Outright Monetary Transactions (OMT) programme.^{3,4}

¹ See [Financial Integration in Europe](#), ECB.

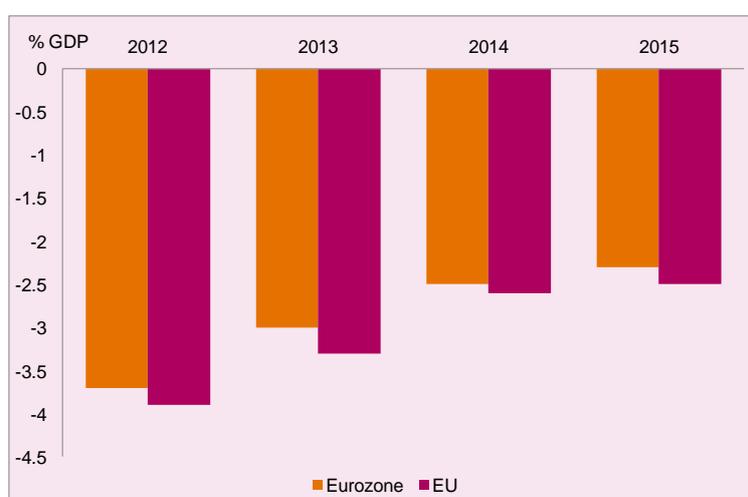
² See [European Economic Forecast Winter 2014](#).

³ Forward guidance is an instrument used by central banks to exercise their influence, by means of forecasts, on future monetary policy. The ECB, in their *forward guidance* of July 2013, announced that their basic rates were expected to remain at current levels or below, for a longer period of time. ECB president Draghi, in May, hinted on a further stimulation of the economy if inflation projections would warrant such a course of action.

⁴ Outright Monetary Transactions (OMT) is an ECB programme, the plans for which were announced on 6 September 2012. The programme is meant to enable the ECB, under certain conditions, to purchase government bonds of certain Member States on secondary markets, in an attempt to lower interest rates. To date, the OMT has not yet been used.

Some developments point to a recovering confidence of investors on the capital markets in the governments of the peripheral countries.⁵ One of these developments is the beginning of structural reforms and consolidation of government finances, particularly in peripheral countries.⁶ For the first time since 2008, the projected average financial deficit within the eurozone and the EU is below the budget standard of 3%; see Figure 2.2. In addition, the competitive position of Spain, Ireland, Greece and Portugal has improved over the last years, due to a decline in labour costs per unit of production, towards the eurozone average.⁷

Figure 2.2 Financial deficit eurozone and EU



Source: [European Economic Forecast - Spring 2014](#).

The increasing confidence in governments also can be seen in the reduced tension on the bond markets. Risk premiums on government bonds have declined further, compared to last year; see Figure 2.3. In some peripheral countries, governments are aiming for full access to international capital markets. Last year, Portugal, for the first time since its financial support programme, returned to the market for government bonds, followed by Ireland in January of this year. In April 2014, for the first time since its financial problems started, also Greece issued a five-year government bond.⁸

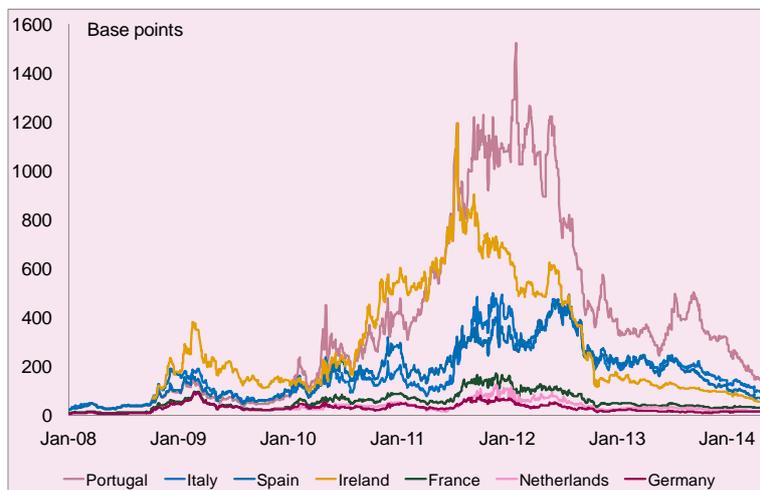
⁵ See [the Reuters press release](#).

⁶ The implemented reform measures are aimed to improve productivity. Various measures have been taken in the fields of public finances and education and to regulate both product and labour markets. See [Economic Policy Reforms 2014 - Going for growth interim report](#), OECD.

⁷ See [DNBulletin: Competitiveness of the euro area periphery has been improving - the adjustment mechanism is still to follow](#).

⁸ The order book of the 3 billion euro sale was more than 7 times overbooked, causing the lower interest rate of 4.95% instead of the expected 5%–5.25%.

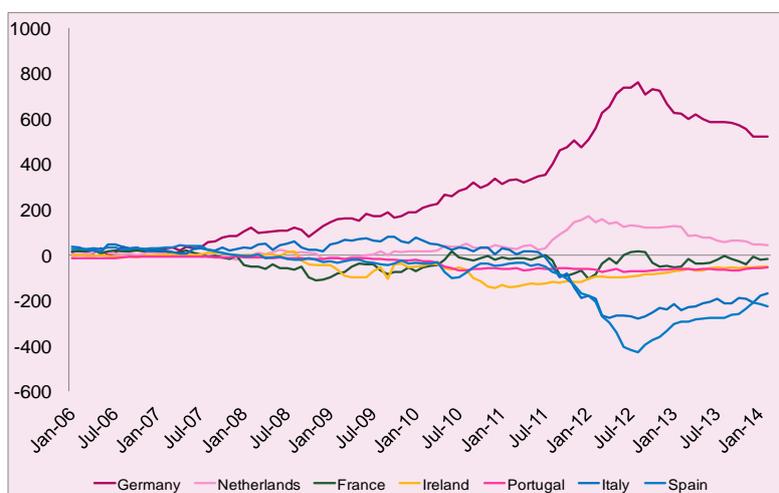
Figure 2.3 Risk premiums (CDS spreads) of government bonds



Source: Thomson Reuters Datastream.

The confidence of financial markets in banks in the peripheral countries is also showing signs of recovery. The reduction in TARGET2 obligations, particularly of Spain and Italy, shows that the inflow of capital in peripheral countries has partly returned (Figure 2.4). The TARGET2 payment system enables direct money transfers between banks within the eurozone. TARGET2 balances are the debts and accounts receivable of central banks in the eurozone with respect to the ECB. The convergence in TARGET2 balances indicates a reduced fragmentation of the European financial market. However, balance sheets are by far not at their levels of before the financial crisis, and this reduction has been slowing down over the last months. This points to the need for further structural reform, in order to fully reduce fragmentation.

Figure 2.4 TARGET2 balance sheets

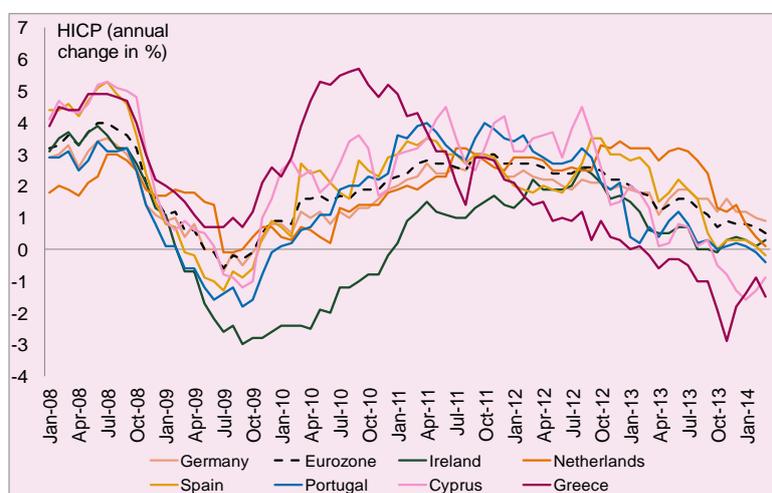


Source: Thomson Reuters Datastream.

Obstructions to further economic recovery

A number of developments within and outside the eurozone are threatening economic recovery and financial stability. More vigilance should be exercised with respect to the continued low inflation within the eurozone. The current average level of inflation is 0.7% – see Figure 2.5.⁹ This is due to the low demand from within the eurozone, as a result of deleveraging in both private and public sectors. Deflation is unlikely for the whole of the eurozone, seeing the improving growth levels in various countries (CEP 2014). However, in Cyprus, Greece, Portugal and Spain, deflation already exists. In the peripheral countries, the lower inflation (compared to the rest of the eurozone) has a positive impact on relative price adjustments between European economies, and improves the competitive position of the peripheral countries. Both deflation and low inflation, however, also pose a risk to these countries, due to high government and private debts. Because of lower inflation, debts are reduced less rapidly, in real terms. Monetary policy within the eurozone is determined by the ECB, which is why individual Member States cannot implement monetary instruments to stabilise domestic price levels.¹⁰ The ECB has announced it will consider all instruments – also the unconventional ones – if the decline in inflation continues. Last May, ECB President Draghi announced to continue the accommodating monetary policy direction, and, if necessary, to act swiftly in easing monetary policy further.¹¹

Figure 2.5 Inflation eurozone



Source: [ECB](#).

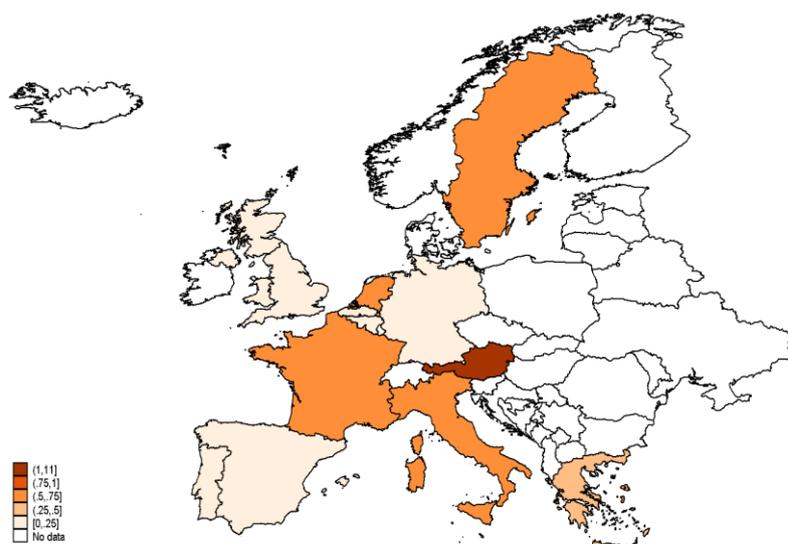
⁹ This concerns inflation according to the European definition, which is measured according to the Harmonised Index of Consumer Prices (HICP). This is the official standard of the monetary policy within the eurozone. The European definition of inflation is different from the Dutch one, which is measured according to the Consumer Price Index (CPI).

¹⁰ The main objective of the ECB's monetary policy is to maintain price stability. The ECB aims for an inflation level that is below, but close to 2%, for the medium term. In order to achieve this objective, the ECB may use the following monetary policy instruments and procedures: open-market transactions, permanent facilities and minimal reserve obligations for banks.

¹¹ See [the press conference](#) of ECB's President Draghi.

Developments outside the eurozone also pose a risk to economic recovery and financial stability. The current crisis in the Ukraine, for example, has caused certain countries and regions, such as the United States and the EU, to impose economic sanctions on Russia. Further escalation of political tensions may affect countries within the eurozone through trade and financial relationships. The EU depends strongly on Russia for its gas and oil, with 40% of its gas and a third of its oil being imported from Russia.¹² For the Netherlands, these percentages are much lower. Other trade relationships and expansions of the EU banking sectors in Russia and the Ukraine, however, are limited. For various EU Member States, the financial claims of banks on Russia and the Ukraine are presented in Figure 2.6, as a percentage of the total bank size per country. The exposure of Dutch banks (0.6% or 13.6 billion euros) to Russia and the Ukraine is comparable to that of France, Sweden and Italy. Various European and US banks, including those in the Netherlands, are withdrawing their money, en masse, from those countries, for fear of losses due to political unrest.¹³

Figure 2.6 Financial claims of the EU banking sector on Russia and the Ukraine



Sources: [BIS](#), [ECB](#), calculations CPB.

The prospect of a tighter monetary policy in the United States poses a risk to global financial stability. As a result of the increasing confidence in economic recovery – the economy grew in the third and fourth quarter of 2013 by 4.1% and 2.6%, respectively – the US Central Bank began tapering the bond purchasing programme at the start of 2014. This largely contributed to the outflow of capital and currency depreciation in various emerging market economies.¹⁴ Higher US interest rates also pose a potential risk within the eurozone. Because of the strong correlation between long-term interest rates in the United States and the European Union, the financing costs of governments, banks and businesses in the eurozone could go up. In

¹² See [this IMF report](#).

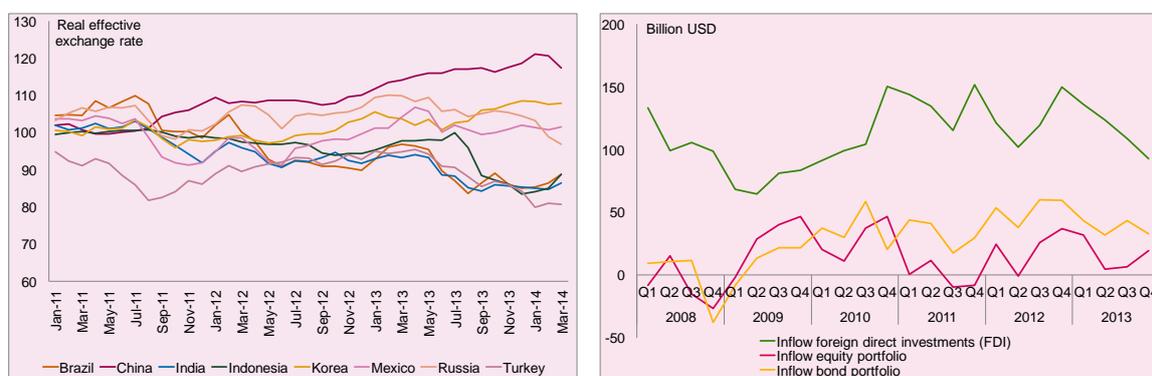
¹³ The total exposure of US banks to Russia and the Ukraine comes to USD 32.45 billion ([BIS](#)).

¹⁴ In particular, Brazil, India, South Africa, Turkey and Indonesia are running the greatest risk of currency depreciation due to tapering. See [Emerging markets - Impacts of the Fed's taper on vulnerable emerging markets](#).

addition, European products would become relatively more expensive, due to currency depreciation. This would affect those European countries that compete with or have large export volumes going to emerging market economies.¹⁵

At the start of 2014, the volatility on the financial markets of emerging market economies again increased, temporarily. Since May 2013, several emerging market economies have been dealing with substantial currency and stock market depreciations ([Global Financial Stability Report 2014](#)). Possible causes are the scale down according to US accommodative monetary policy, concerns over the alleged faltering economic growth in China, and the political unrest in the Ukraine and Turkey. Countries with persisting deficits on their current accounts and that had access to relatively cheap capital from Western countries were hit the hardest. The fear of a large-scale reversal of capital flows, however, has not yet come to pass, see Figure 2.7. A number of stock markets in emerging market economies and their currencies have meanwhile recovered, to a certain degree; in part, also because of more stringent monetary policy in these countries. European banks, currently, have an exposure of over USD 3000 billion to emerging market economies ([Reuters](#)). The exposure of the Dutch financial sector to the main emerging market economies is 190 billion euros, around 11% of the total foreign assets.¹⁶ The persistent unrest in emerging market economies poses little risk to the Dutch financial sector, but could affect the Dutch economy indirectly, by a potential slowing down of the eurozone economy.

Figure 2.7 Exchange rate (left) and capital flows (right) of emerging economies¹⁷



Source: IIF.

¹⁵ DNB (2014), [Overview Financial Stability, Spring 2014](#).

¹⁶ DNB (2014), [Overview Financial Stability, Spring 2014](#).

¹⁷ The sample in the figure on the right is composed of data on Brazil, Russia, India, China, South Africa, Turkey, Mexico, Chili, Poland and Indonesia. Capital flow 2014Q is based on projections.

A new supervisory framework for the EU financial sector will contribute to guaranteeing financial stability

In response to deficiencies in the structure and conduct of bank and financial system supervision, which came to light during the financial crisis, the EU implemented a number of reforms, in recent years. The main goals of the new supervisory framework for the banking sector are to strengthen the resilience of this sector against economic shocks and to mitigate the negative feedback between banks and governments. Following the stricter capital requirements for banks and limitations to bonus payments to bankers, the banking union is nearly completed.

The Basel III capital requirements have been implemented in the CRR/CRD IV Regulation, which has been in place since January 2014.¹⁸ A complete phase-in of the new capital requirements will take up to 2019. According to the most recent report by the Bank for International Settlements (BIS), large, internationally operating banks are on schedule to comply with the Basel III requirements.¹⁹ Currently, there is debate on the optimal capital level; Dutch banks have capital buffers that are well over the legally required minimum and strive for this level also in the future. The same is true for additional requirements, such as the 4% leverage ratio.

The banking union, the largest structural reform of financial supervision in Europe, consists of three parts: European supervision, a European resolution mechanism, and a European deposit insurance system. The objective of the banking union, thus, is threefold; improved ex ante supervision, improved ex post intervention, and realisation of a joint safety net. The first part of the banking union, the Single Supervisory Mechanism (SSM), will be implemented in November of this year. From then on, the ECB will directly supervise 130 larger, significant banks, as well as banks that have received direct support from either the European Financial Stability Facility (EFSF) or the European Stability Mechanism (ESM).^{20,21} These banks, together, manage around 85% of consolidated bank assets in the eurozone. National supervisors will continue to directly supervise the less significant banks, with indirect supervision by the ECB. The list of significant banks includes seven Dutch banks: ING Bank, Rabobank, ABN AMRO Bank, SNS Bank, Nederlandse Waterschapsbank (NWB Bank), Dutch Municipal Bank (BNG) and the Royal Bank of Scotland NV. Together, these seven banks represent close to 90% of all Dutch bank assets.

Before introduction of the supranational supervision, an extensive assessment will be conducted of the balance sheets of systemic banks, the so-called Comprehensive Assessment

¹⁸ The CRR/CRD IV package converts the new global guidelines for bank capital (Basel III) into EU regulation.

¹⁹ See [Basel III Monitoring Report](#).

²⁰ See [this ECB document](#).

²¹ The SSM distinguishes between significant and less significant banks. Whether a bank or banking group is considered significant depends in part on the total value of its assets (limit value of 30 billion euros) and on its importance to the local economy (balance sheet – limit value 5 million euros and 20% of GDP) – involving at least the three largest banks per participating Member State. Of the more than 300 banks in the eurozone, currently 124 have been marked significant, based on the above definition (consolidated figures).

(CA). The two main parts of this CA are the Asset Quality Review (AQR) and the joint stress test by the EBA and the ECB.^{22,23} For a comparison between new stress tests and those of 2011, see the text box on *European stress tests more stringent*.

European stress tests more stringent

Compared to the stress tests of 2011, the new macroeconomic 'adverse event' scenario of the 2014 stress test is more demanding and covers a longer time period (three years instead of two).^a The table below presents these differences. The negative result on GDP concerns an accumulated decline of 7% over three years, against an annual 2% decline in the previous stress test. The accumulated decrease in house prices and share prices also shows a large downward deviation. Compared to earlier stress tests, the increase in the interest rate on government bonds is substantially larger. However, under the new stress scenarios, the increase in short-term interbank interest rates is lower than that under previous scenarios. Changes on the labour market are largely comparable. All together, this points to a stricter stress scenario for banks.

The macroeconomic 'adverse event' scenarios of the 2014 stress test, however, are less stringent in certain areas than the [CCAR](#) tests for US banks. In comparison, the European adverse event scenario leads to a total cumulative deviation of the EU GDP of 7 percentage points and a cumulative deviation of unemployment of 2.9% by 2016, compared to the baseline scenario. In real terms, this means a cumulative real decline in GDP of 2.1% over the period of three years, which is substantially less than the US scenario with a real decline in GDP of 4.75% over a 15-month period. The peak in unemployment in Europe is 13% after 3 years, whereas in the United States it is 11.25% after 15 months. Share prices drop under the European 'adverse event' scenario by 19%, compared with those under the baseline scenario (US CCAR 50% decrease), house prices by 21% (US CCAR 25%), and real estate prices by 15% (US CCAR 50%). Stress tests in the [United Kingdom](#) (UK) are also more stringent in a number of areas.

	2014 Stress test - 'adverse event' scenario			2011 Stress test - 'adverse event' scenario	
	Deviation from baseline			Deviation from baseline	
	2014	2015	2016	2011	2012
Government debts (bp)	152	112	112	75	75
Short-term interbank interest rate (bp)	80	80	80	125	125
Share prices (%)	-18.3	-15.9	-18.1	-15	-15
House prices (%)	-7.8	-7.7	-5.3	-2.7	-9.7
GDP growth (ppt)	-1.9	-3.2	-1.8	-2.0	-2.0
Unemployment (ppt)	0.3	1.2	2.2	0.3	1.2
HICP inflation (ppt)	-0.1	-0.6	-1.3	-0.5	-1.1

^a The 'adverse event' scenario reflects the systemic risks that currently are considered the most relevant threat to the stability of the banking system. These concern (i) an increase in global interest rates on government bonds; (ii) a further decline in the credit rating of the peripheral countries; (iii) thwarting government measures that hurt the confidence in government finances; and (iv) the absence of the necessary recovery of bank balance sheets (see [this EBA document](#)).

²² The CA has three objectives: transparency about the financial state of banks in the eurozone, identification and implementation of the necessary work to repair bank balance sheets and to rebuild the confidence in the European banking sector.

²³ The method used in stress tests is based on a number of important points: the assumption of a static balance sheet, prescribed approaches to market risks and securitisation, and a series of upper and lower limits for interest revenue, risk-weighted assets and income from trading. See [this EBA press release](#).

Under sufficiently stringent execution of the AQR, by this October it will become apparent which European banks are undercapitalised.²⁴ This could potentially lead to uncertainty and speculation about the level of stringency with respect to the outcome of the AQR and stress tests. Uniformity across countries, objective input in the form of peer reviews, and transparency about preconditions and implementation all helped to prevent such uncertainties and speculation. A credible AQR thus offers transparency about the quality of bank balance sheets and potentially eases the issuance of fresh capital. Should problems at banks continue to persist, mandatory recapitalisation would be preferred over incremental policy. Important in this respect is to provide incentives for banks to prefer new capital over bank balance sheet reduction ([CEP 2014](#)).

European significant banks, in the last quarter of 2013, started cleaning up their balance sheets. In part, this may be attributed to the desire to prevent ‘unfavourable’ outcomes of the AQR. Since July 2013, these banks have issued around 45 billion euros of fresh capital, or have announced their intention to do so.²⁵ The same banks also reported around 135 billion euros in provisions and write-offs on non-performing loans, mostly according to the new EBA definitions.²⁶ In previous years, the banks in the eurozone used bank-specific definitions for non-performing loans and their related provisions.

In March 2014, a preliminary agreement was reached on the second pillar of the European banking union, the Single Resolution Mechanism (SRM).²⁷ For the design of the agreement, see the text box on the *European Single Resolution Mechanism and Single Resolution Fund*.²⁸ The proposed mechanism carries a number of risks, with the result that the objective – to break end the negative feedback loop between banks and governments – may not be achieved. In the first place, it will take many years to build the emergency fund, which means there will be no common safety net in the coming years, to mitigate possible uncertainties and market volatility resulting from the AQR. Until that time, the various Member States will remain responsible for the resolution of their national banks. This also means that any costs incurred while doing so, following a possible bail-in of private investors, will be carried fully by the national governments, as currently is the case. In the short term, the negative feedback between banks and governments, therefore, will not be stopped. In addition, the size of the fund is only limited. From 2016 onwards, it will be built up to 55 billion euros. This amount seems rather small, compared to the total size of the eurozone’s banking sector (over 30,000 billion euros).²⁹ Here, it has to be noted that this fund cannot be used until after the use of bail-in. The fund, hence, is not primarily intended for recapitalisation. In addition, the banks’ capital buffers have been increased, lowering the costs of future bank rescues compared to those during the financial crisis. However, the fund also seems insufficient for non-

²⁴ The CA is based on capital requirements as implemented in the CRR/CRD IV regulation.

²⁵ [ECB Financial Stability Review](#).

²⁶ Source: annual reports, calculations by CPB. For the EBA definition of non-performing loans, see [EBA FINAL draft Implementing Technical Standards](#).

²⁷ See [State of Play of the Banking Union](#).

²⁸ See [statement 14-77](#) and [IP/13/674](#) of the ECB.

²⁹ This concerns the total size of financial institutions (MFIs) in the eurozone, according to the [ECB](#).

recapitalisation purposes, such as the construction of 'bad' banks. The final issue of risk concerns the decision-making process for the resolution of a bank, which is very complex and susceptible to political interference. Many different institutions are involved in such a decision-making process. As Member States still have the last say, there is the inherent risk that it will take a long time to reach agreement on a bank's resolution. However, rapid decision-making would be essential, particularly in the absence of a safety net, to prevent the en masse withdrawal of investors.³⁰

European Single Resolution Mechanism and Single Resolution Fund^a

On 20 March 2014, the European Parliament reached a preliminary agreement on a European Single Resolution Mechanism (SRM). The SRM complements the Single Supervisory Mechanism (SSM) that will become operational at the end of 2014. The objective of the SRM is to ensure an organised resolution of failing banks and to keep the costs to a minimum for taxpayers and the economy.

The SRM agreement consists of two parts: the establishment of a European Single Resolution Board (SRB) as well as a private European Single Resolution Fund (SRF), financed by banks. The SRM will be implemented in January 2015; the bail-in framework and resolution fund in 2016. The SRM will apply to all banks under the supervision of the SSM. The SRB is responsible for the resolution plan and the direct resolution of banks under ECB supervision as well as internationally operating banks. National resolution authorities are responsible for the banks that operate solely on a national level and that are not under ECB supervision, on the condition that they do not make use of the Single Resolution Fund (SRF).

The SRM decision-making process is as follows:

- The ECB, as supervisory body, determines when a bank is in serious financial difficulties and needs rescuing. This fact, subsequently, is reported to the SRB, the Commission and national authorities.
- The SRB determines whether or not the bank's situation poses a risk to the financial system. If not, a resolution plan is drafted, in which the SRB defines the approach for the resolution, the instruments to be used and the involvement of the fund in the resolution.
- The Commission determines if and when the resolution takes place, and designs a framework for use of the resolution instruments as well as the fund. If money from the fund is made available and there is no case of public interest, approval by the European Council is required.
- National resolution authorities then are responsible – under SRB supervision – for the implementation of the resolution plan.

The SRF will replace the national resolution funds. The fund will be managed by the SRB and financed by all banks in the participating Member States. The exact amount to be contributed by each individual bank will be determined by the Commission and the Council, taking into account the risk profile of the bank concerned. The fund's target level has been set at 55 billion euros by 2024. Until the fund is sufficiently capitalised, it may raise additional contributions from the banking sector or borrow money on the market. During the 8-year transition period, bridging loans are available through national safeguards, covered by bank taxation of the ESM.

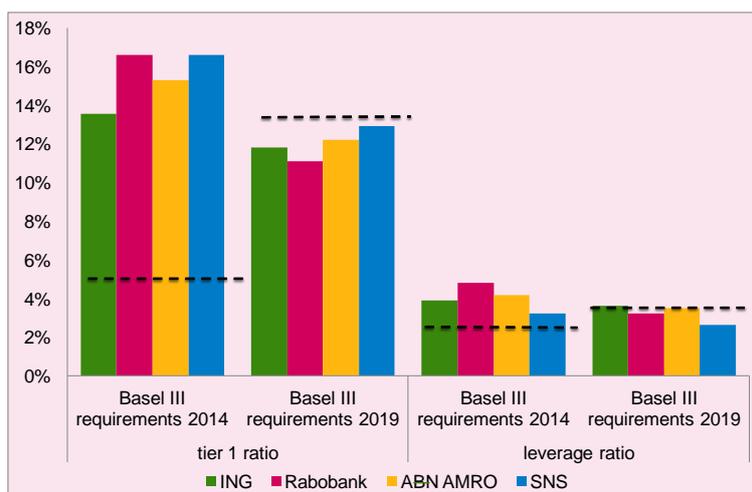
^a See [statement 14-77](#) and [IP/13/674](#) by the ECB.

³⁰ See [Merler \(2014\)](#).

3 The Dutch financial sector

The solvency of the Dutch banking sector has clearly improved, compared to the situation before the financial crisis. The four largest Dutch banks are well on their way to comply with the new capital requirements. Based on public information, Figure 3.1 shows the capital and leverage ratios of major banks under the CRR/CRD IV requirements, as these are applicable in 2014 and 2019. These will be supplemented by an assumed bank-specific additional buffer of 1% CET and, per 2018, a national leverage charge of 1%.³¹ Starting point for the figure are the maximum CT1 capital ratios. Compared to the situation before and during the crisis, the risk to financial stability due to Dutch banks getting into trouble, today, seem more manageable. Also because the intervention mandate of the DNB and the Dutch Ministry of Finance has been expanded, considerably, under the Intervention Act.³²

Figure 3.1 Basel III/CRD IV capital and leverage ratios Dutch major banks, per 31 December 2013



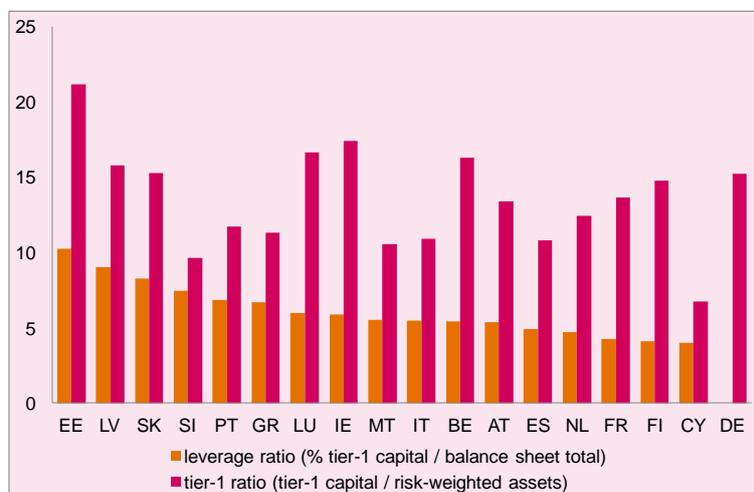
Source: Annual reports 2013, calculations by CPB.

From an international perspective, the capitalisation of Dutch banks still provides a mixed picture. Based on risk-weighted capital, the Dutch banking sector is relatively well-capitalised. However, this is less the case when looking at the unweighted leverage ratio, see Figure 3.2. The low leverage ratio is partly due to the favourable risk-weighting of assets.

³¹ The maximum core capital ratio per 2019 will consist of a 3% SIB (systemically important bank) component, a 2.5% counter-cyclical component, a 2.5% conservation buffer component, and a 4.5% core capital requirement.

³² On 13 June 2012, the Dutch 'Act on Special Measures for Financial Enterprises' (Intervention Act) came into force. This Act provides DNB and the Minister of Finance with new authority for timely intervention at financial institutions in need. See [this Dutch publication in the Bulletin of Acts, Orders and Decrees](#) and [this assessment of the Intervention Act \(in Dutch\)](#).

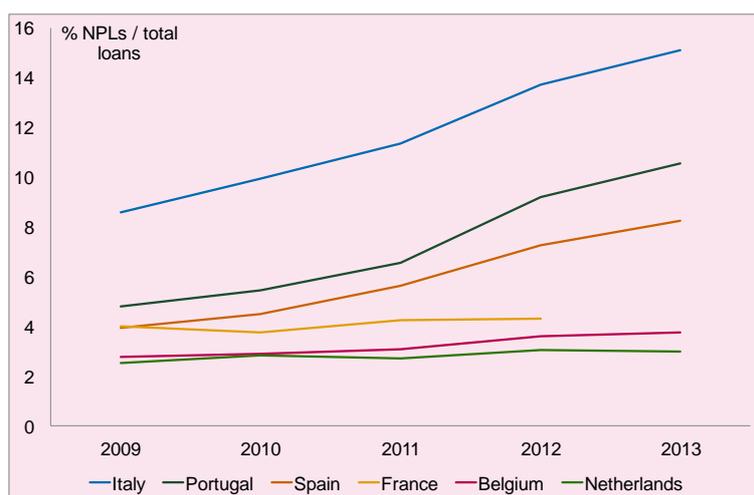
Figure 3.2 International comparison of bank capitalisations³³



Source: DNB, IMF, [Financial Soundness Indicators](#).

The recession has led to increasing credit losses for Dutch banks. The recent [Transparency Exercise](#) by the European Banking Authority (EBA) has shown that the share of non-performing loans in the total loan portfolio of Dutch banks is only limited.³⁴ Making a sound international comparison is difficult, as the definition of non-performing loans varies between banks and countries. The best available indicators of the share of non-performing loans are the IMF financial stability indicators.

Figure 3.3 International comparison of non-performing loans of banks in the eurozone³⁵



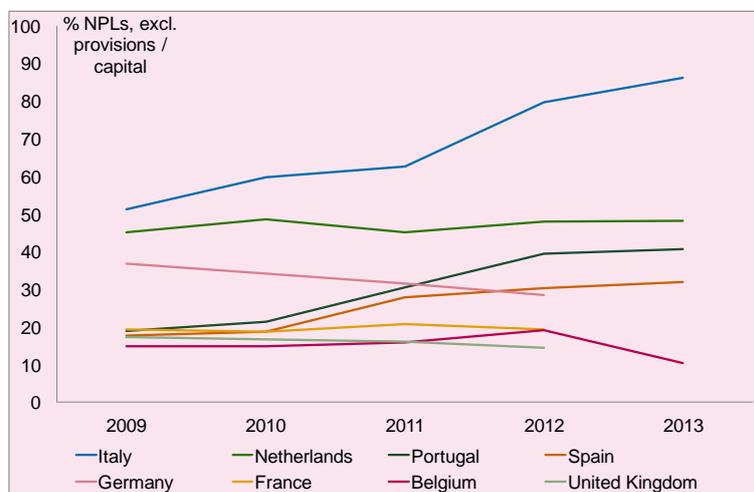
Source: IMF, [Financial Soundness Indicators](#).

³³ Data are in line with the Basel II guidelines. The definition of core capital is that of the Basel Committee on Banking Supervision (BSB).

³⁴ The Transparency exercise provides current information on the European banks that were part of the recapitalisation in 2012. This information relates to capital composition, risk-weighted assets, claims on governments, credit risk, market risk, securitisation and Loan-To-Value (LTV) ratios.

³⁵ Data on 2013 concern the state of affairs after the second quarter of 2013.

Figure 3.4 International comparison of bank buffers in the form of provisions³⁶



Source: IMF, [Financial Soundness Indicators](#).

Figure 3.3 shows that, from an international perspective, the share of non-performing loans in the total loan portfolio of Dutch banks is only limited, but that the magnitude of the non-performing loans for which no provisions have been made is high, when compared against the capital (Figure 3.4). Under a complete write-off of those non-performing loans, the latter could be interpreted as a halving of the banks' capital, but this is not considered a likely scenario. The financial reporting rules dictate that the provision level is partly dependent on the foreclosure value of the collateral, which is deemed relatively high in the Netherlands. Therefore, this could create the perception of insufficient buffers being available to cover all of the non-performing loans. The Dutch banking sector scores reasonable well in a number of international comparisons; nevertheless, some vulnerabilities remain, with respect to the Dutch loan portfolios.

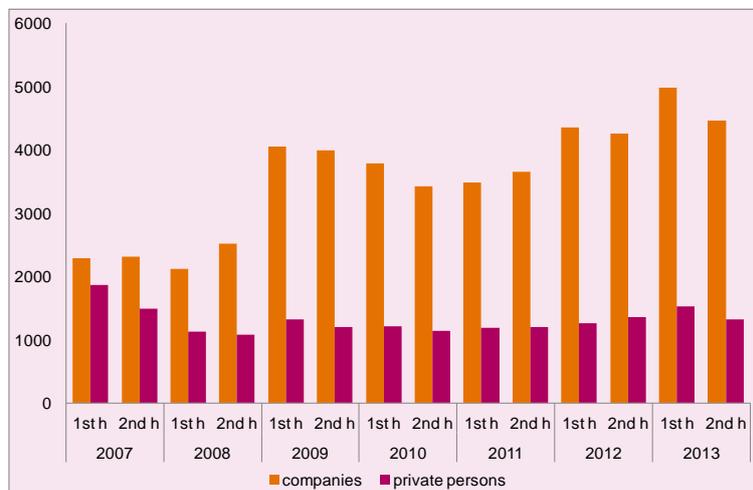
The recession has led to a record 12,000 bankruptcies in 2013, see Figure 3.5.³⁷ For banks, this has increased the credit risk related to business loans; particularly to small and medium-sized enterprises (SMEs). This is reflected by the increase in provisions made by banks with regard to these portfolios, as well as by the increase in the number of non-performing loans. The DNB has reported the latter increase to be the largest for SMEs, with 5.7% of the credit volume in the last quarter of 2013. For the large corporate segment, this is much lower, with 3.5% of the credit volume.³⁸

³⁶ Non-performing loans, excluding provisions, are calculated by subtracting the value of their provisions from the non-performing loans. Capital equals the total capital and reserves on the sector's balance sheet. Data on 2013 concern the state of affairs after the second quarter of 2013.

³⁷ See [this publication](#) by Statistics Netherlands (CBS).

³⁸ See DNB (2014), [Overview of Financial Stability, Spring 2014](#).

Figure 3.5 Number of bankrupt businesses and natural persons



Source: Statistics Netherlands ([CBS](#)).

The number of non-performing loans in the mortgage portfolio has barely increased, with 1.3% of the mortgage volume, as a result of the low number of mortgage payment defaults.³⁹ Dutch citizens have a high payment ethic. People do not default on their mortgage unless they are truly unable to pay their debts, such as in cases of divorce or unemployment. The Dutch social safety net functions as an insurance which ensures, at least in the short term, that debts are being serviced in case of unemployment, thus keeping the mortgage arrears low. However, because households can only temporarily draw on their savings and/or unemployment benefits, credit losses on mortgages are expected to increase as a result of increasing unemployment levels.⁴⁰ If mortgagors are unable to service their debts, often, the NHG (the Dutch National Mortgage Guarantee) provides a guarantee for the bank. Around 165 billion euros (1.1 billion residential homes) on the total Dutch housing mortgage debt of 637 billion euros is financed with NHG, which means that a large share of the mortgage portfolio of banks is covered.⁴¹

Despite the fact that around half of the total mortgage debt in the Netherlands consists of interest-only mortgages, the credit risks related to these mortgages is only limited. In the first place, the interest-only mortgages keep monthly net debt servicing costs relatively low, in the short term; therefore, this also applies to the number of mortgage defaults. In addition, particularly older households have interest-only mortgages, with between 60% and 85% of the outstanding mortgage debt of people over the age of fifty consisting of interest-only mortgages. For people below the age of thirty this is only 20%. The people over the age of fifty, generally, pose a smaller risk, as their houses are less often 'underwater'. A mortgage is

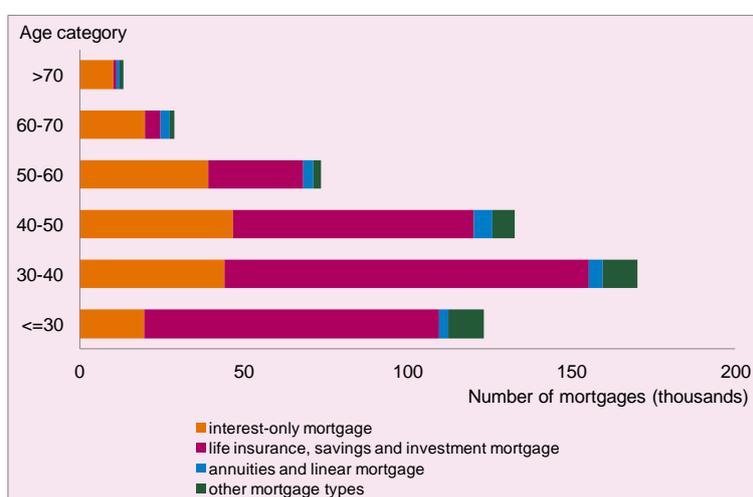
³⁹ See DNB (2014), [Overview of Financial Stability, Spring 2014](#). For the sake of comparison: the respective defaults of Ireland, Spain and the United States are 12.3%, 5.2% and 9.3%.

⁴⁰ Beers, N.J.C van, and M.J. Bijlsma (2013), *Afbouw van consumentenschuld - welke rol voor de overheid?* [*Reducing consumer debts - what role for the government? (in Dutch)*], [CPB background Document](#).

⁴¹ See [Kwartaalcijfers Stichting Waarborgfonds Eigen Woningen](#) [*Quarterly figures Homeownership Guarantee Fund (in Dutch)*] - 1st quarter 2014.

said to be underwater when the amount of the mortgage is higher than the value of the mortgaged house itself. Of the 827,000 interest-only mortgages held by people over the age of fifty, only 8.4% is 'underwater'. In comparison: of the 437,000 interest-only mortgages of people below the age of fifty this is 25.3%.⁴² Figure 3.6 shows that people below the age of fifty are more often 'underwater' than those over fifty, and that these households are more likely to have life insurance, savings or investment mortgages. It must be noted, however, that no data are available on the savings amounts coupled to these mortgages. Also, people over the age of fifty present less of a risk, because they often have gathered sufficient assets during their lifetime to absorb potential negative equity. The average net assets in tax box 3 of Dutch homeowners over the age of fifty come to around 114,000 euros (WoOn2012).

Figure 3.6 Number of houses 'underwater' (with one type of mortgage resting on it)



Source: WoOn 2012.

Finally, there is hardly any recovery on the market for commercial real estate. An obvious question would be whether Dutch banks have written off sufficient amounts and have taken enough provisions for the losses on their real estate portfolios. CPB did not have data available to answer this question. In the second half of 2013, the DNB studied the commercial real estate portfolios and provision levels of the three largest Dutch banks.^{43,44} These three banks cover nearly all exposures of Dutch banks to commercial real estate risks, both in the Netherlands and abroad. The DNB concluded that Dutch banks had enough provisions and capital buffers to deal with both expected and unexpected losses. The amount in provisions

⁴² Concerns mortgages on houses with only 1 type of mortgage.

⁴³ See [this Parliamentary letter \(in Dutch\)](#) of 28 March 2014, Finalising study by the DNB on commercial real estate exposures of banks

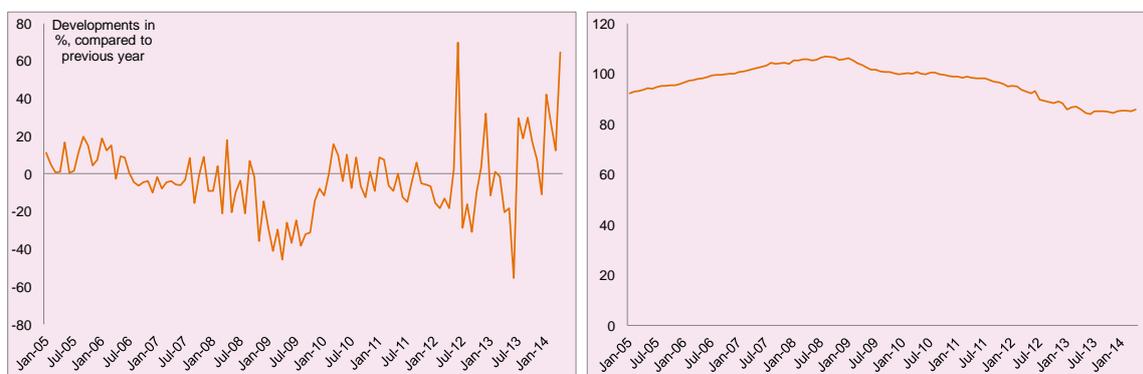
⁴⁴ DNB started in 2012 on a course to ensure that the risks related to commercial real estate are clearly visible on bank balance sheets, are managed properly, banks are sufficiently capitalised, and that they make a sufficient amount of provisions. In the first phase, the valuation of commercial real estate and risk management are investigated. The second phase concerns a detailed investigation of the books, looking into the commercial real estate portfolios of the banks. The magnitude of the books investigation covers over 60,000 loans with a total [value of around 70 billion euros.

in relation to commercial real estate concerns 6% to 8%, on a total portfolio of commercial real estate loans of 70 billion euros.⁴⁵

Financial situation of households

The Dutch housing market is showing the first signs of recovery. Since mid 2013, the number of transactions is increasing and house prices have remained more or less stable, see Figure 3.7. In addition, nominal mortgage interest rates have declined over the past two years and, from a historical perspective, have reached a low level, which has improved the affordability of mortgages (CEP 2014).

Figure 3.7 Number of housing transactions (left) and price index existing privately owned houses (right)



Source: Statistics Netherlands (CBS).

Since the start of the financial crisis, in mid 2008, prices of existing privately owned houses in the Netherlands have declined, on average, by 20% (Statistics Netherlands (CBS)). Figure 3.8 depicts the large regional spread in house price development in the Netherlands. In 2011, the house price decline was highest, in percentages, in the northern provinces and in Zeeland.⁴⁶

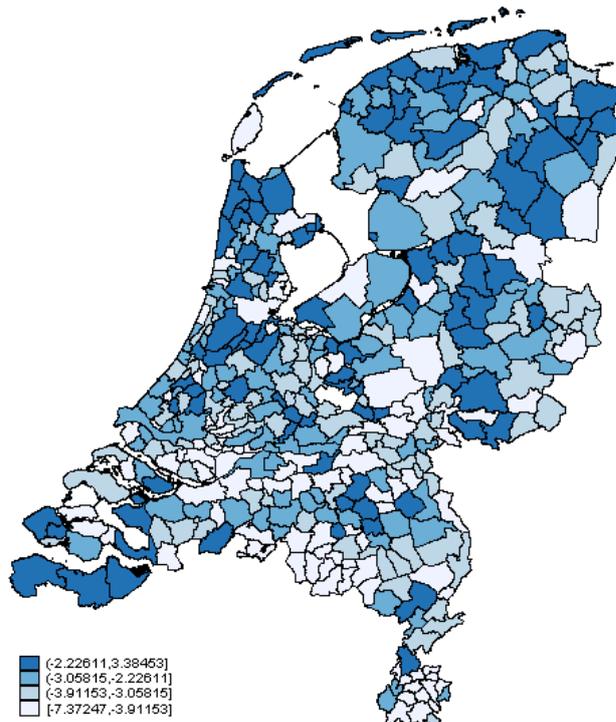
Because of the sharp drop in house prices, a large number of households have negative equity (are 'underwater'). According to the most recent CBS report, at the start of 2013, over 1.4 million homeowners (32%) had a mortgage debt higher than the value of their home. It must be noted that any savings, investment or insurance amounts coupled to these homes are not taken into account. There is a large degree of heterogeneity between households in their net asset development. Young households (i.e. households of which the oldest member is below the age of forty) that have purchased a house in the last decade are most at risk. In the first place, they are most often 'underwater'; over 62% of the households under the age of thirty and 45% of owners in their thirties were 'underwater' in 2012, see Figure 3.9. In the second place, young households face the highest interest rate charges, in relation to their

⁴⁵ In 2013, banks made many additional provisions in order to deal with losses. For example, the Rabobank made a provision of 1.7 billion euros on commercial real estate activities for a portfolio of 27.3 billion euros. See [Rabobank Annual Report 2013](#). In addition, 58 million euros were written off on investments in real estate and 59 million on project development.

⁴⁶ Concerns house price developments for households that have not moved house during the 2000–2011 period.

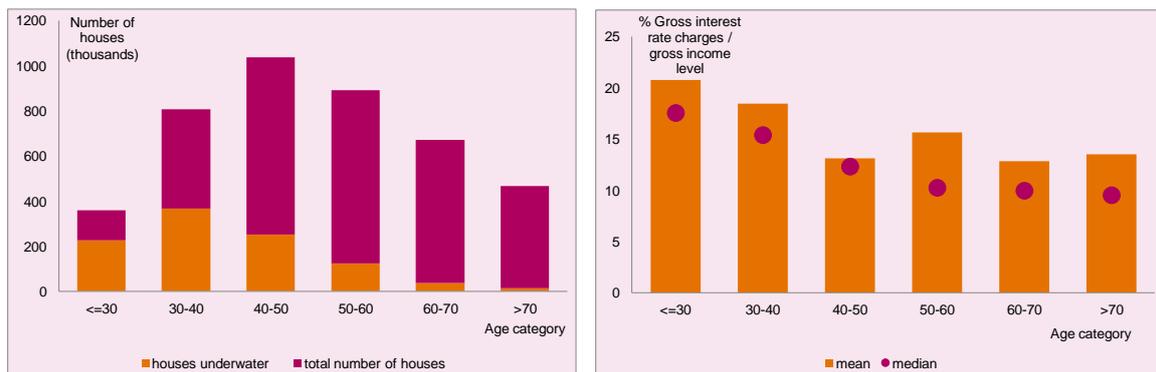
income level. This makes them more vulnerable to interest rate changes and other financial shocks.

Figure 3.8 House price developments in 2011, per municipality



Source: Statistics Netherlands (CBS), calculations by CPB.

Figure 3.9 Number of houses 'underwater' (left) and interest rate charges in relation to income (right) and age category



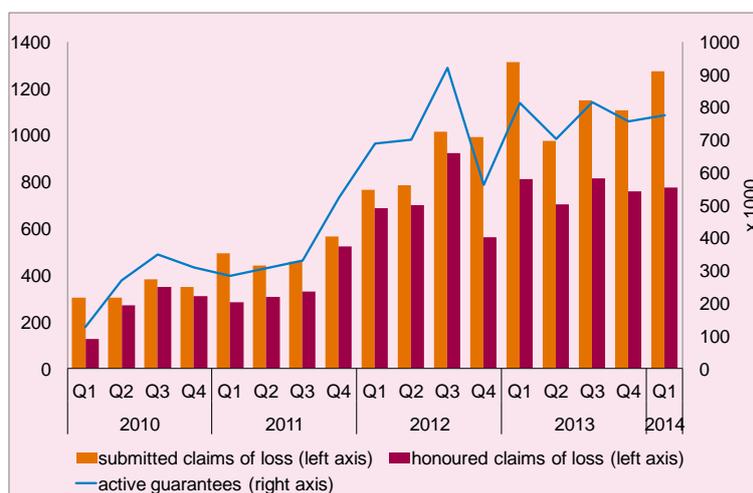
Source: WoOn 2012, calculations by CPB.

The stabilising house prices have not solved the problems for some of the Dutch households. Having negative equity is not necessarily a problem if you do not have to move house and as long as you are able to service your debts. However, the persisting high unemployment and rising interest rates may put further pressure on the affordability of mortgages. Currently, 7.1% of the Dutch labour force is unemployed. This percentage is expected to increase to

7.25% in 2014, and unemployment will not go down until 2015, when it is projected to decrease to 7% ([CEP 2014](#)). It will take years before the labour market is in equilibrium again.

Because of the deteriorated financial situation of households, the number of payment arrears is increasing. An increasing number of homeowners are forced to sell their homes. In addition to unemployment also divorce is one of the main reasons: 65% of house sales are forced due to relationship termination. The number of submitted NHG claims serves as a proxy for the number of forced sales. In the first quarter of 2014, 1,272 households called on the NHG, see Figure 3.10. This is 13% higher than the average of 2013, although the rise is partly caused by an increase in the number of provided guarantees in the last years.⁴⁷

Figure 3.10 Number of submitted NHG claims

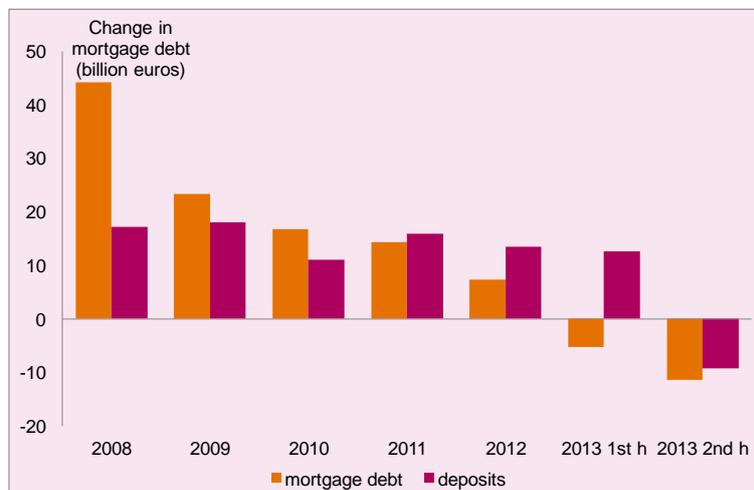


Source: [NHG](#).

Furthermore, the deteriorated financial situation of households also leads to deleverage and lower consumption levels. In 2015, because of the combination of increased disposable income, stabilised house prices and stable or declining unemployment, households are expected to enter an easier period. Economic forecasts project a slight growth in consumption ([CEP 2014](#)). In the second half of 2013, Dutch household deposits decreased by about 9 billion euros. Over the same period, the total mortgage debt declined by around 11 billion euros (Figure 3.11). This points to funds that otherwise would have been used as deposits now partly having been used for additional mortgage repayments. If this is true, consumption could recover faster than projected, as part of the losses in housing assets would have been reduced. However, there is also the risk that households deleverage further, in which case consumption will not recover, in the short term.

⁴⁷ See [quarterly figures Stichting Waarborgfonds Eigen Woningen \[in Dutch\]](#) - 1st quarter 2014.

Figure 3.11 Changes in mortgage debt and saving levels of Dutch households



Source: [DNB](#), calculations by CPB.

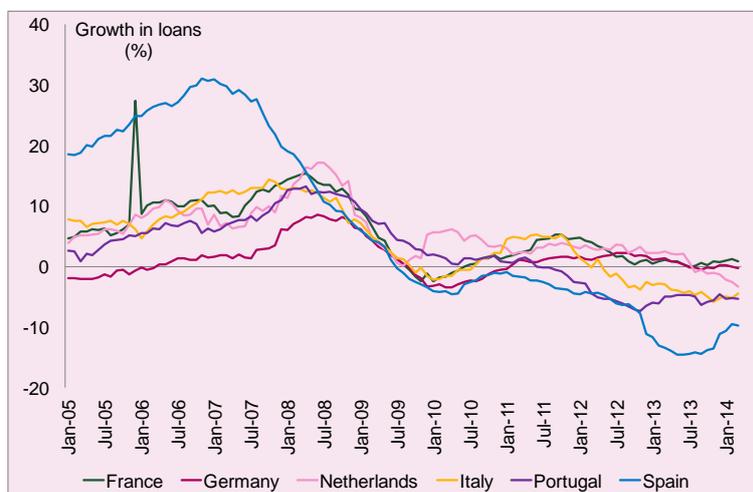
4 Financing SMEs

With the actual recovery of the Dutch and the European economy, the question on everyone's mind is whether Dutch businesses will have sufficient access to credit. The concern here is that insufficient availability of credit will put the brakes on the possibilities for a speedy recovery (see the text box on *The impact of crises on the granting of credit and the real economy*). Empirical evidence shows that a decline in the amount of credit granted by banks in OECD countries over the years 2008 and 2009 led to lower growth in industries that are relatively dependent on external financing.⁴⁸ The growth in bank credit for the Dutch business community has declined since the end of 2009, and turned into contraction in 2013, see Figure 4.1. Other European countries experience the same. From an international perspective, the slower growth in granted credit by Dutch banks has remained limited. The banks' reservations have most affected the small and medium-sized enterprises (SMEs), as these are largely dependent on bank financing. Large companies in the Netherlands have a savings surplus and sufficient means to invest, making them less dependent on banks.⁴⁹

⁴⁸ M. Bijlsma, A. Dubovik and B. Straathof, 2013, How Large was the Credit Crunch in the OECD?, [CPB Discussion Paper 232](#).

⁴⁹ See [Central Economic Plan 2014](#).

Figure 4.1 Development of the growth in granted credit non-financial companies in Europe



Source: [ECB](#).

The reduction in the amount of credit granted to SMEs has two causes: companies have less access to credit (supply effect) and they apply less often for credit due to the economic decline (demand effect). The relative importance of demand and supply factors cannot be quantified on the basis of the available data. In the absence of empirical research that separates demand and supply effects for the Netherlands, a comparison of various indicators provides an impression of the importance of both factors. Despite the indications that supply limitations have had their effect, demand factors appear to be the main cause of the decline in credit granted to SMEs. A weaker financial position for some of the SMEs has made access to credit more difficult.

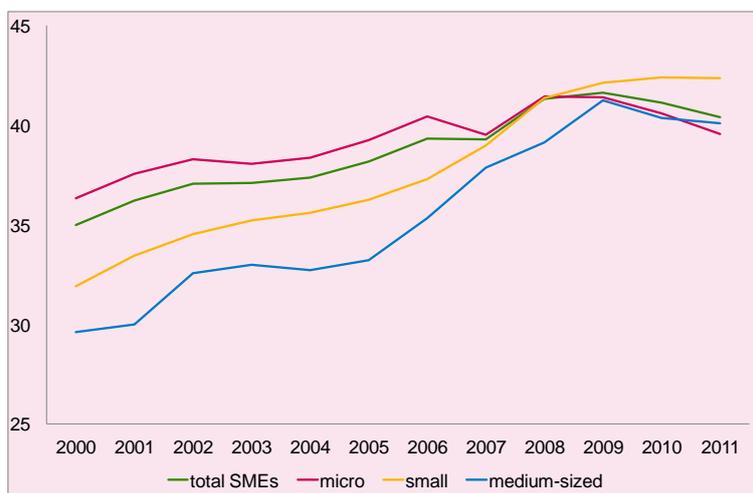
The financial position of SMEs

Despite the crisis, the solvency index for SMEs, on average, has remained at the same level, see Figure 4.2. Between 2001 and 2011, the equity of SMEs grew, on annual average, by 7.1%. The balance sheet grew a little less, with an average of 4.7%, causing the average solvency to increase. On the basis of these averages, which include only the companies that have not left the market, the SMEs appear healthy. However, since the start of the crisis, the annual growth percentages for equity are lower; in particular, for micro-companies.⁵⁰ Since the crisis, the solvency of micro-companies has declined by 3 percentage points, while for small and medium-sized enterprises, this increased by 1.3 and 2.7 percentage points, respectively. As the SMEs in the Netherlands consist for two thirds of micro-companies, the solvency of the entire SME sector decreases. However, SMEs form a heterogeneous group, which means generalisations about their situation are not possible for the whole of SMEs as a group. Within the size categories, there are companies that do very well and those that score

⁵⁰ SMEs are companies with fewer than 250 employees and a balance sheet of less than 43 million euros. They are divided in three size categories: micro, small and medium-sized companies. Micro-companies are those with fewer than 10 employees and a balance sheet total of less than 2 million euros. Medium-sized companies have over 50 employees and a balance sheet total of more than 10 million euros. Small companies are those in-between these two other categories.

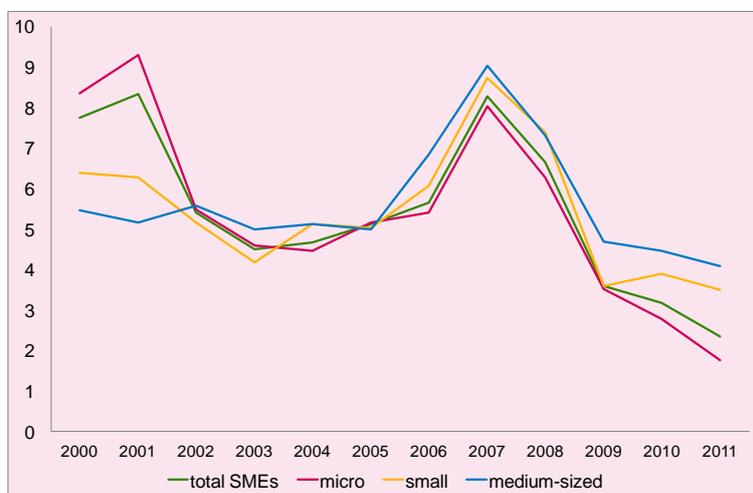
low for one or more financial index numbers. Also among the micro-companies there are those that do very well.

Figure 4.2 Development average solvency SMEs, according to size category



Source: CBS, calculations by CPB.

Figure 4.3 Average return on assets (ROA) SMEs, according to size category



Source: CBS, calculations by CPB.

Other index numbers show the weakening financial position of part of the SMEs, particularly the micro-companies. The liquidity position of Dutch SMEs, on average, is good. The average development of the interest coverage ratio points to problems for micro-companies, as over half of these enterprises have an interest coverage ratio that is below the threshold used by banks. The return on assets (ROA) for the total equity, on average, has been declining since the start of the financial crisis, but remains positive, see Figure 4.3.⁵¹ The turnover figures

⁵¹ Return on assets is defined as the net result over the balance sheet total.

illustrate the heterogeneity of micro-companies; the average growth in turnover in 2011 was 4.3%, but over half of micro-companies are facing a decline in turnover.

The weakened financial position of SMEs has both an economic and a structural component. Between 2008 and 2012, Dutch household consumptions declined and domestic demand recovered only slightly. SMEs active in sectors that are strongly dependent on domestic demand, such as the construction sector, catering industry and retail sector, have therefore been more affected than enterprises in other sectors. Economic recovery is particularly important for those largely dependent on domestic demand. Since the onset of the crisis, these companies have been performing less well than others, according to all financial indicators. In addition, some SMEs are facing more structural problems. Their profitability was already under pressure, even before the crisis. Around 20% of enterprises already had a negative return on assets, with an average 51% chance that this would remain negative in the following year. Other financial indicators for these enterprises also scored below the threshold used by the banks. It is likely that some of these enterprises are not economically viable.

Other figures also illustrate the fact that economic downturn reduces the demand for new and expanding investments, with a decline in the demand for credit as a result. There are no structural data available on this point, but ABN AMRO reported a 50% decline in the number of credit applications, compared to the first quarter of 2012. This decline, however, did level off over the last three quarters.⁵²

The financially weak position of some of the Dutch SMEs partly explains their high bank credit rejection percentage, compared to that in other euro countries. A recent empirical study based on an ECB survey explains the high Dutch rejection percentage of bank credit applications as being due to selection effects.⁵³ Despite the low number of observations, results do point to some SMEs being in a weaker position. In the Netherlands, relatively many companies that find themselves in a financially weak position apply for bank credit, which causes the rejection percentage also to be rather high. A possible other explanation is the purpose of the credit application. Dutch enterprises appear to use credit less often for investments in company assets than their counterparts abroad. Credit that is intended for other uses than investments in company assets, generally, is rejected more often, as it is more difficult for banks to assess the risk related to other investment purposes, such as working capital.

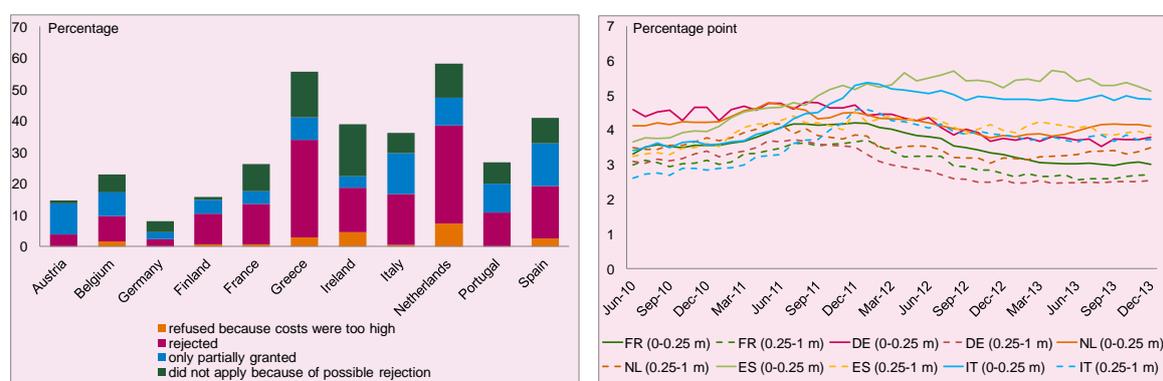
⁵² See [this report \(in Dutch\)](#) by ABN AMRO.

⁵³ Hebbink, G., M. Kruidhof and J. Slingenberg, 2014, Kredietverlening en bancaire kapitaal [*Credit granting and bank capital* (in Dutch)], DNB Occasional Studies 12.

Supply limitations

In addition to demand effects, there are also indications that, in the period following the financial crisis, supply factors have had an impact on credit granting.⁵⁴ For example, a relatively high percentage of rejected loan applications has been reported in a standardised ECB survey (Figure 4.4), as well as relatively high interest rates on small loans, compared to larger loans (Figure 4.4). Figures also show a steady decline since 2010 in the volume of small loans in the Netherlands.⁵⁵ Banks may have reduced the supply of credit for two reasons.

Figure 4.4 Credit rejections SMEs (left), interest on small loans (right)



Source: ECB, [Survey on the Access to Finance of SMEs](#), [ECB](#).

The first reason for limiting the supply of credit is the increased credit risk and the mounting losses on SME credit. Additional factor is the relatively high costs for banks involved in estimating the credit rating of SME enterprises. In particular, for the smaller credit amounts, monitoring costs are relatively high, in relation to the return on interest. Thus, banks either have to incur many costs or be satisfied with relatively high uncertainties. If they would translate this into a higher credit price, particularly the higher risk-bearing companies will apply for credit, which in turn is unattractive to banks. Instead of charging a higher price, banks tend to tighten their lending criteria. Monitoring costs can be reduced relatively easily, through implementation of a credit register for SMEs. Information relevant to financing institutions, currently, is encased in various sources, which could be united within a credit register and made available to financing institutions. Such credit registers are already operational in a number of European countries, such as in Belgium, Spain and Sweden. Credit registers can also be used to analyse the effectiveness of certain policy instruments.

The capital position of banks is the second explanation for limiting the supply of credit. Following a capital shock banks need to recapitalise and may do so by issuing fewer loans, increasing interest rates, withholding dividend payments, or by raising fresh capital. In

⁵⁴ See Hebbink, G., M. Kruidhof and J. Slingenbergh, 2014, Kredietverlening en bancaire kapitaal [*Credit granting and bank capital*] (in Dutch), DNB Occasional Studies 12.

⁵⁵ Stuurgroep kredietverlening, Kredietverlening aan het MKB [*Steering Committee on credit granting, granting credit to SMEs*] (in Dutch) [Report 25 June 2013](#).

practice, banks usually choose to provide fewer loans or increase the interest rate on loans.⁵⁶ Various studies have found such a reduction in the number of loans, as a result of undercapitalisation.⁵⁷ A recent study by the DNB indicates that the Dutch banking sector is sufficiently capitalised to meet the demand for credit resulting from the expected economic recovery.⁵⁸ As the study assumes that banks are unable to raise fresh capital, the conclusion is that they will not be able to meet the demand for credit when business investments increase rapidly while bank profits disappoint.⁵⁹ However, if the economy improves, issuance of fresh capital will become easier and, from this perspective, problems related to credit supply are considered unlikely.

Other figures also indicate that capital problems of banks are not a determining factor in the declining growth in loans granted to SMEs. The difference between credit granted to large corporations and small companies, in combination with low economic growth, is an important indication of supply limitations not playing a large role. If banks would have had insufficient capacity to issue credit, due to capital shortages or financing problems, this would very likely also have affected credits to large corporations. However, the Netherlands scores really well at this point, compared to other countries. The interest rate on loans of over 1 million euros is low in the Netherlands, compared to that in other European countries. This picture is further enhanced by the fact that some Dutch banks are looking to expand their SME portfolios in the eurozone.⁶⁰

Alternatives to bank finance

Irrespective of the underlying cause of the decline in bank loans granted to SMEs, alternative forms of external financing should be stimulated. Traditional alternatives to bank financing, such as leasing, factoring and holding companies, to date, have been used relatively little by Dutch SMEs, see Figure 4.5. Achieving a larger supply by broadening the finance market could be a solution. New alternative forms of finance have been gaining ground, over the last years; micro-financing, crowdfunding, credit unions and SME funds have grown substantially, albeit from a low starting level. These alternatives, however, remain niche markets, see Figure 4.5. For a number of these funding sources, certain limitations caused by rules and regulations may play a role in preventing these alternatives from becoming more serious options. Crowdfunding, for example, is under AFM (Netherlands Authority for Financial Markets) and/or DNB supervision, depending on the structure of the platform. Credit unions require a banking permit under Dutch rules and regulations, which means that the connected

⁵⁶ See the text box on recapitalisation, [Central Economic Plan](#).

⁵⁷ Peek, J. and E.S. Rosengren, 1997, The international transmission of financial shocks: the case of Japan, *American Economic Review*, 87 (4), 495–505; Identifying the Bank Balance Sheet Channel with Loan Application, *American Economic Review* 2012, 102 (5), 2301–2326.

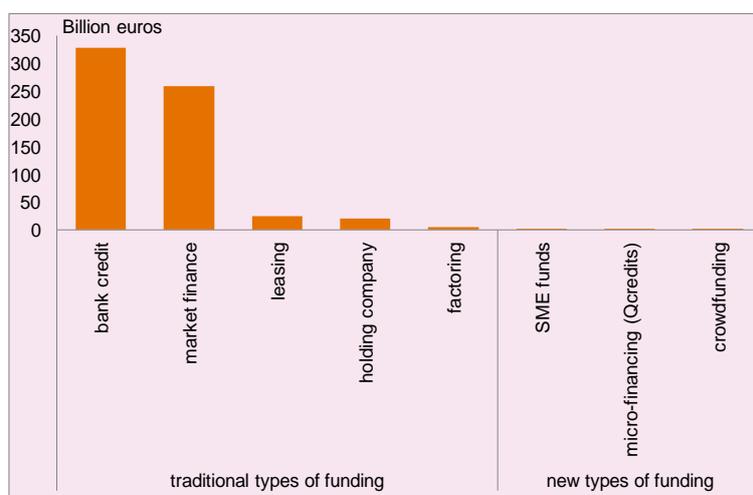
⁵⁸ Hebbink, G., M. Kruidhof and J. Slingenberg, 2014, Kredietverlening en bancaire kapitaal [*Credit granting and bank capital* (in Dutch)], DNB Occasional Studies 12.

⁵⁹ The DNB study also assumes that banks do not adjust the composition of their balance sheets. Growth in the amount of credit granted to SMEs, thus, involves an equal growth for all other balance sheet entries. This last point is debatable. Another important matter to note is that the study does not take other possibilities into account, such as cost savings through wage reductions.

⁶⁰ See [this report](#) by the ING Bank.

administrative burden may be a barrier to start-up initiatives.⁶¹ Further development of a broader credit market in Europe, similar to that of the United States, would require improving the equity ratio of European SMEs, including those in the Netherlands. The European average ratio between equity and total assets is half that of the United States.⁶² Such a transition process will take time.

Figure 4.5 Magnitude of traditional financing instruments and new forms of financing, large corporations and SMEs



Source: ECB, DNB, Douw and Koren, FAAN, Nederlandse vereniging van participatiemaatschappijen, Leaseurope, Qcredit, NPEX.

⁶¹ Together with the European Commission, the possibilities are being studied to see if – and under which conditions – Dutch credit unions could be exempt from complying with CRD regulation, as is also the case in certain other European countries, see [Cabinet response credit unions, of 11 November 2013 \(in Dutch\)](#). Credit unions are a new development in the Netherlands, and therefore any possible exemption in relation to CRD regulation has not been addressed earlier. This in contrast to countries such as the United Kingdom and Ireland, which have a long history of credit unions and related regulations and have been exempt from complying with CRD regulations, already for decades.

⁶² Sebnem Kalemli-Ozcan, Bent Sorensen, Sevcan Yesiltas, Leverage across firms, banks, and countries, *Journal of International Economics*, 88 (2012) 284–298.

The impact of crises on the granting of credit and the real economy

Bank crises have a long-lasting negative impact on the real economy. Growth achievements that lag behind are explained in economic theory by transference from a financial shock to the real economy. The literature distinguishes mechanisms that work through bank balance sheets (bank lending channel) and company or household balance sheets (financial accelerator).

Empirical literature on the bank lending channel is mostly limited to the impact of capital shocks on credit granting. However, the separation of demand and supply effects is an important problem. Studies that are the most successful in doing so, generally study the Japanese crisis. Peek and Rosengren (1997) analysed how a local shock in Japan had affected the lending behaviour of branch offices and subsidiaries of Japanese banks operating in the United States. They conclude that a 1% reduction in the risk-weighted capital ratio led to a decline of around 6% in the growth in loans at US branch offices of Japanese banks, but also to a much weaker effect at subsidiaries. A later study by Peek and Rosengren (2000) focused on the impact of a supply shock in the credit supply of US branch offices of Japanese banks on their economic activities in the United States; specifically with respect to commercial real estate. Compared to the earlier study, a smaller impact was found on the number of loans. This decline, however, coincided with a more or less equal reduction in construction activities, from which may be concluded that companies had few substitution options.

Some studies using micro data try to determine the impact of a capital shock on the number of loans issued. Puri, Rochol and Steffen (2009) found that saving banks that were affected by the crisis had reduced their number of loans by an average 11%, compared to banks that were not affected. The distribution of new loans over risks does not appear to have changed. Jiménez, Ongena and Peydró (2010) used data from the Spanish credit register on the 2002–2008 period. They found that a reduction in bank capital led to a decline in the number of loans issued if the short-term interest rate was high or the economic growth was low. They also showed that companies cannot simply change banks if they are rejected by a certain bank. Albertazzi and Marchetti (2010) found that banks with a risk-weighted capital ratio of below 10% issued fewer loans, and that large banks were lending less to companies with a higher risk profile.

Smaller companies tend to be more vulnerable to supply problems at banks. Chava and Purnanandam (2011) found that companies with access to working capital solely through banks, such as small companies, are more vulnerable to bank crises than companies with access to alternative sources of working capital. They also found that bank-dependent companies suffered larger losses and had a stronger decline in operational profits than their counterparts that could obtain financing through the bond market.

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