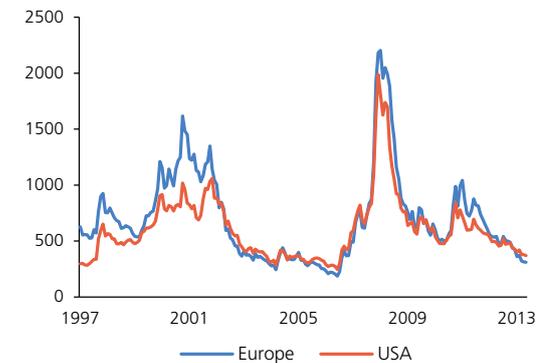


CHART V.1

### Yield spreads on risky corporate bonds (bp)



Source: Bloomberg L.P.

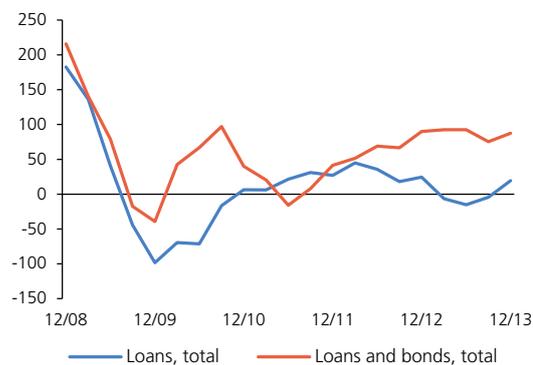
Note: Spread means the option-adjusted spread between corporate and government bond yields. A risky bond is a speculative-grade bond (BB+ or lower).

## 5 RISKS TO FINANCIAL STABILITY AND MACROPRUDENTIAL POLICY

The aim of this section is to assess the main risks to financial stability and to assign risk mitigation tools to them. To this end, the text evaluates the risks stemming from the external environment, the current position of the Czech economy in the financial cycle, the resilience of the Czech financial sector to the risks identified, and the tasks and recommendations arising from the analyses for macroprudential policy, microprudential supervision and other economic policies. The first part contains an assessment of financial stability indicators, including a macroprudential dashboard. The second part shows the main sources of risks to financial stability and describes measures the CNB might take to reduce them. The third, fourth and fifth parts provide information about the use of macroprudential and other tools in response to the risks identified and about regulation in this area. The final part describes the regulatory environment in the EU, macroprudential policy in the EU and progress in the banking union area.

CHART V.2

### Change in funds raised by non-financial corporations (year-on-year change in CZK billions)



Source: CNB, quarterly financial accounts

### 5.1 ASSESSMENT OF RISKS TO FINANCIAL STABILITY

#### In advanced countries, the risks that originated in the pre-crisis boom and during the crisis are still apparent...

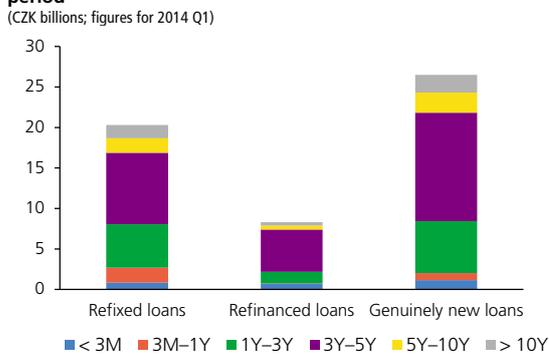
The advanced economies have yet to fully mitigate the risks that originated before and during the crisis. Household and corporate debt-to-income ratios are falling very slowly. Overall debt servicing costs, i.e. the ratio of interest and principal to income, are very high in many countries. Increasing downward pressures on prices, which the euro area in particular is facing, are creating a risk of debt deflation, a situation where the real debt level increases due to falling nominal income. In this environment there is an increased probability of default, worse profitability of financial institutions and increased vulnerability of financial institutions to risks and shocks. The impacts of these conditions on economic activity and the functioning of financial markets are having adverse side effects on the Czech economy.

#### ... and are being joined by risks associated with easy financial conditions

The very low interest rates and high availability of liquidity are encouraging global investors to search for yield. This is being reflected in increased risk-taking in financial markets and the formation of bubbles in some asset markets. Strong growth in prices and activity in the residential and commercial property markets can be seen in the USA and many European countries. There are also concerns that some stock markets may be overvalued. From the global perspective, however, the increasing size of bond markets combined with a general decline in their risk premia poses a much greater risk. This applies in particular to corporate bond issues in advanced and emerging economies. Investors are also showing a high willingness to accept bonds with higher risk characteristics and lower creditor protection.

CHART V.3

### New loans to households for house purchase by rate fixation period (CZK billions; figures for 2014 Q1)



Source: CNB

Note: The data are only preliminary. M stands for month and Y for year. The upper boundary of a range belongs within that range.

### The risk of a shock adjustment of bond portfolios is increasing

The yield spreads on both US and European corporate bonds have returned to the extremely low levels observed before the financial crisis (see Chart V.1) and the absolute yield has fallen to even lower levels. This may indicate a partial loss of investors' ability to value risks appropriately in the current environment. As virtually all types of financial institutions are showing significantly higher exposures to corporate and government bonds, even a modest increase in long-term interest rates could prompt global portfolio reshuffling, which would lead to a sharp rise in financial market volatility and substantial market losses and possibly also credit losses.

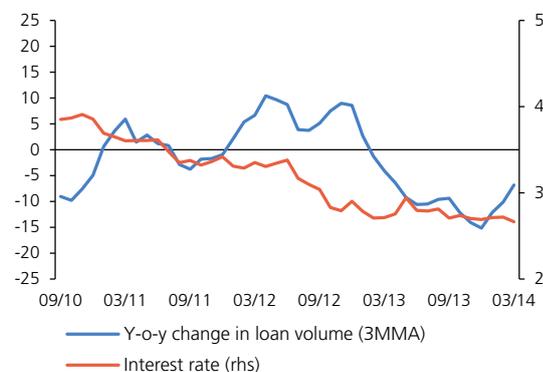
### The financial cycle in the Czech Republic is still being affected by subdued economic activity

The amount of credit in the Czech economy increased again in 2013. As in previous years, this rise was due mainly to loans to households for house purchase. However, consumer credit also started to edge up after several years of decline. The relatively high year-on-year growth in new loans for house purchase is, however, a result of a rising share of refixed/refinanced loans, which, strictly speaking, are not new loans at all (see also section 2.3).<sup>1</sup> According to preliminary data, refixed and refinanced loans accounted for about half of total new loans in 2014 Q1. A potential risk to the household sector – one which could increase its sensitivity to interest rates – would be a situation where households, when refixing, also reduced the rate fixation period of the new contract. This risk is not currently relevant, however. Although the share of loans with new fixation periods of up to one year is rather higher for refixed/refinanced loans than for genuinely new loans, the differences are not large (see Chart V.3). Corporate loans also recorded a recovery. As in other countries, large domestic enterprises took advantage of the favourable conditions to increase their bond issuance, which, however, can be still regarded as quantitatively low. Including corporate bonds, the growth in external corporate funds (see Chart V.2) is slightly above the average of recent years. Credit growth remains rather subdued overall (see Chart V.16), despite having started to accelerate in late 2013 as the economy recovered. As there are no major supply-side constraints, this can be attributed to low credit demand, particularly among large enterprises. Subdued lending growth can also be expected in the future, as indicated by the evolution of new loans to non-financial corporations and households (see Charts V.4 and V.5). This will reflect weak aggregate demand in the domestic economy, as evidenced by the emergence of a positive gap between the private sector's financial surpluses and the general government deficit, indicating a risk of balance-sheet recession (see section 2.1).

1 Only those refixed loans where refixation occurred on the basis of active action by the client are classed as new loans. If a loan was refixed "automatically" under an earlier loan agreement, it is not included in new loans.

CHART V.4

#### New koruna loans to non-financial corporations (including overdrafts; %)

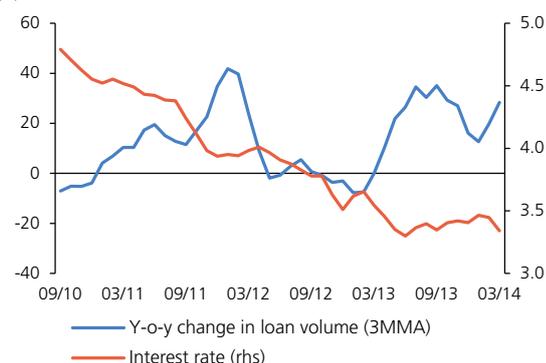


Source: CNB

Note: 3MMA denotes three-month moving average of year-on-year changes.

CHART V.5

#### New koruna loans for house purchase (%)

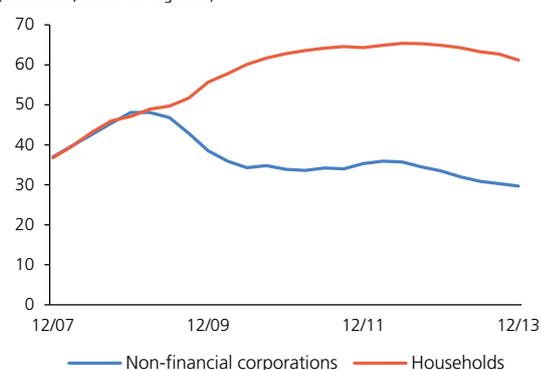


Source: CNB

Note: 3MMA denotes three-month moving average of year-on-year changes.

CHART V.6

#### Interest paid on bank loans (CZK billions; annual moving totals)

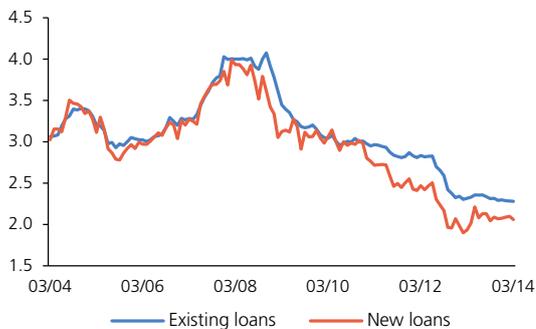


Source: CNB

CHART V.7

### Margins on bank loans to non-financial corporations

(percentage points p.a.)



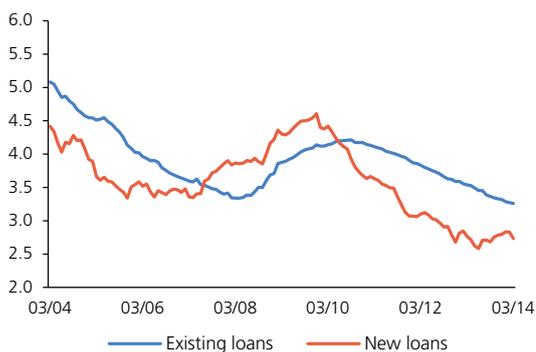
Source: CNB

Note: Margins are calculated as the difference between loan rates and relevant deposit rates.

CHART V.8

### Margins on bank loans to households for house purchase

(percentage points p.a.)



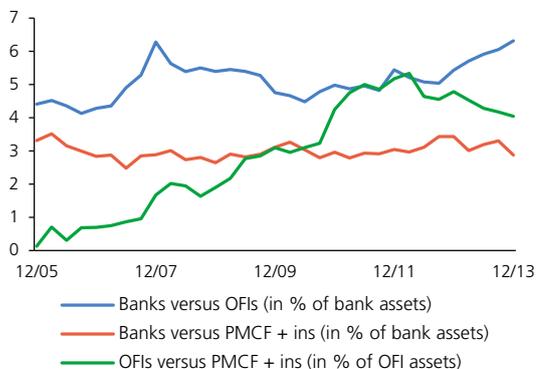
Source: CNB

Note: Margins are calculated as the difference between loan rates and relevant deposit rates.

CHART V.9

### Interconnectedness of segments of the financial sector

(sum of all mutual exposures in assets and liabilities between sector pairs in % of assets)



Source: CNB (financial accounts)

Note: OFIs comprise other financial corporations engaged in lending, mutual funds other than money market funds, controlling holding companies and some other financial institutions. PMCF + ins comprises funds of pension management companies and insurance companies (see ESA 95 methodology).

### Credit standards tightened slightly in 2013, while margins on new loans were virtually unchanged

From the point of view of credit risk, one positive factor is that banks are not easing their credit standards. These standards were little changed in 2013 or, with the exception of loans for house purchase, were tightened very slightly. By contrast, rates on new loans remain at historical lows of around 3% for both loans for house purchase and corporate loans (see Charts V.4 and V.5). The generally low level of bank lending rates was reflected in an absolute decline in interest paid (see Chart V.6), which occurred despite a rise in the stock of loans. For corporations and households this is reducing the risks associated with the decline in economic activity and is having a countercyclical effect by fostering a drop in debt servicing costs. At the same time, margins on new loans stopped falling or showed modest growth (see Charts V.7 and V.8).<sup>2</sup> This can be viewed as an appropriate trend, as the rapid fall in margins in the previous period led to a rise in the risk of their levels not always being consistent with appropriate credit risk evaluation.

### The stock of loans in the Czech economy remains at a reasonable level

The ratio of loans to GDP in the Czech Republic is currently slightly below its trend level (see Chart V.17). Due to the current and expected growth in lending it is reasonable to assume that the Czech financial sector faces no risks due to excessive credit growth. This is a key guide for setting the countercyclical capital buffer, which is dealt with in section 5.3.

### Some links between financial sector segments increased

Most of the links between financial sector segments continued to strengthen in absolute terms in 2013, owing to a rising volume of mutual deposits, loans and ownership interests. However, the evolution of these links relative to the asset volume was mixed across segments. A significant increase was recorded between banks and other financial intermediaries (OFIs; see Chart V.9) due to a large increase in the exposures of OFIs to banks. The stronger intersectoral links are generating an increase in the risk of transmission of financial distress across sectors.

### Bank portfolios are getting more alike

The cross-sectional dimension of systemic risk can increase as a result of changes in banks' loan portfolios leading to greater similarity between them. An analysis of domestic banks' exposures suggests that the similarity of their portfolios is increasing (see Chart V.10). Exposures to the non-financial corporations sector broken down by category of economic activity and exposures to other sectors were considered as portfolio components in this analysis. Whereas the changes in previous years had been affected most of all by banks' exposures to general government (see section 5.5), the increase in similarity in 2013 had no clear source. The increase in the similarity of bank portfolios represents

<sup>2</sup> Margins are measured as the difference between the relevant lending and deposit rates.

a risk because shocks to one sector or a part thereof would have a stronger effect on the banking sector as a whole and risk diversification might prove to be insufficient.

### Growth in the structural component of systemic risk is being suppressed by robust banking sector liquidity

The Czech banking sector has long had above-average liquidity by international comparison. Its liquidity position improved slightly further in 2013 thanks to a rising share of quick assets in total assets and client deposits (see Chart V.11). In an environment of low interest rates and a flat yield curve, however, the ratio of liabilities payable on demand to total liabilities continued to rise. This is causing maturity transformation to increase, which may represent a potential risk factor if sudden sharp shocks occur (see Chart V.12). However, this is a consequence of the natural response of economic agents to a situation of near-zero monetary policy interest rates.

### The macroprudential dashboard

As in FSR 2012/2013, the CNB's view of the current situation and trends in the Czech economy from the systemic risk and macroprudential policy perspective is described using a simple graphical tool called a macroprudential dashboard (see Table V.1).<sup>3</sup>

The current fundamental message of the dashboard reflects the findings and conclusions presented in the other parts of this Report. Among other things, the risks stemming from low Czech government bond yields and low interest rate margins increased slightly compared to the previous period (although developments in 2013 H2 indicated a possible change in trend in this area – see Charts V.7 and V.8). By contrast, a relative weakening of future risks is evident, for example, in the evolution of the total stock of loans in the economy. The risks to financial stability are being kept at a low level thanks also to a further increase in banks' capital adequacy.

The dashboard is dominated by green colour, indicating that it may be possible or appropriate to ease the macroprudential conditions thanks to low risks to future financial stability in the relevant areas. However, some indicators (those marked in red) suggest some potential risks. Although the vast majority of these are only potential risks, the CNB will monitor them closely in the future.

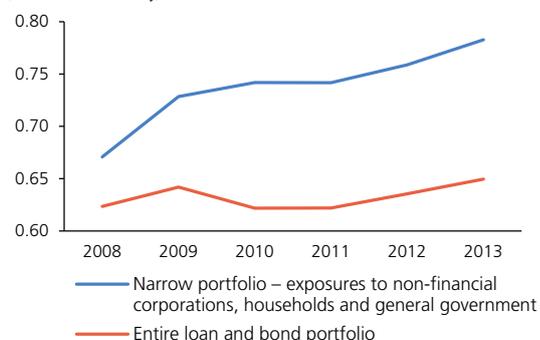
Of course, the CNB's decisions on the configuration of macroprudential tools cannot be based mechanically on the dashboard alone, but must draw on many other, more detailed data and considerations. The multi-criteria nature of the financial stability objective makes it necessary to expertly assess whether each particular indicator value reflects the emergence of future risks or the materialisation of past risks, whether it

<sup>3</sup> A more detailed explanation of the dashboard's structure and content was provided in section 5 of FSR 2012/2013.

CHART V.10

#### Similarity of bank portfolios

(1 = maximum similarity)



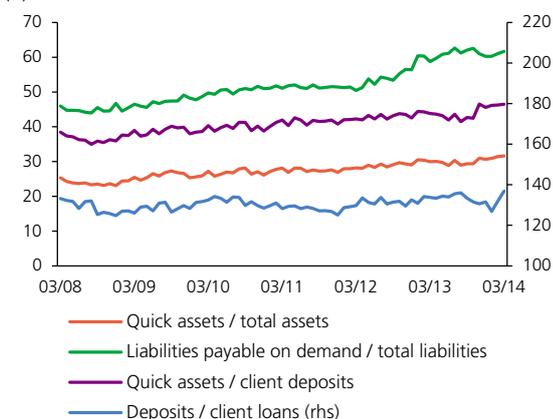
Source: CNB

Note: Similarity is expressed as a weighted average of the cosine distances between the vectors of the portfolios of the individual bank pairs. The weights are the smaller of the two market shares of the bank pair. The vector of the portfolio of each bank expresses the share of the individual investment types in the total. Building societies are included under their parents.

CHART V.11

#### Liquidity ratios in the banking sector

(%)

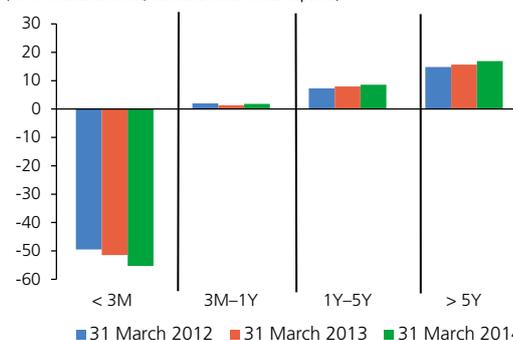


Source: CNB

CHART V.12

#### Loan and deposit maturity mismatch: net balance-sheet position

(as % of balance sheet; standard loans minus deposits)



Source: CNB

indicates a short-term or medium-term risk, and so on. A more detailed assessment of the risks described by the individual indicators is given in the other subsections.

TABLE V.1

**Macroprudential dashboard (key financial stability indicators in 2012 and 2013)**  
(distance from benchmark expressed as number of standard deviations)

**1. RISK FACTORS****1a. Short-term**

Real GDP growth (year on year, %)	Green
Real gross disposable income growth (year on year, %)	Green
Interest expenses/gross disposable income (%)	Red
Non-performing loans/total loans (%)	Grey
Growth in demand deposits in banks (year on year, %)	Green
10Y government bond yield (average for period, %)	Red
Growth in residential property prices (transaction prices, year on year, %)	Green
Dividends paid on CET1 of banks (%)*	Red

**1b. Medium-term**

Loans/GDP (%)	Green
Credit growth (% end of period, year on year)	Green
Public sector debt/GDP (%)	Grey
Household debt/nominal gross disposable income (%)	Red
Apartment price/average annual wage	Green
Apartment price/annual rent (according to IRI)	Green
Interest margin (new loans vs. deposits, %)	Red

**2. MULTIPLICATION OF IMPACTS ON FINANCIAL SYSTEM**

Interconnectedness in banking sector (%)	Green
Concentration of bank claims (five largest/CET1, %)	Red
Concentration of bank liabilities (five largest/CET1, %)	Green

**3. ABSORPTION MECHANISMS IN FINANCIAL SYSTEM****3a. Absorption of all types of shocks**

Excess of CET1 of banks above regulatory minimum (pp)	Green
Leverage (bank assets/equity)	Green

**3b. Absorption of credit risk**

Aggregate LTV for residential mortgage loans (%)	Red
NPL coverage ratio (provisions/NPLs, %)	Red

**3c. Absorption of liquidity risk**

Quick assets/total assets of banks (%)	Grey
Client loans and credit facilities/client deposits of residents (%)	Grey

Source: CNB

Note: Unfilled (filled) values are for 2012 (2013). Green (red) indicates a need to consider looser (tighter) macroprudential policy; grey signifies no clear indication in either direction in the current situation.

The benchmarks for the indicators are the estimates of the trend values or the averages since 2002 (or later, depending on data availability).

The indicators are unweighted, so the same values for different indicators can mean different contributions to total systemic risk.

\* Dividends paid out of the profits of the previous year and earlier periods.

## 5.2 SYSTEMIC RISKS AND MACROPRUDENTIAL POLICY RECOMMENDATIONS

### Credit risk remains the focus of the CNB's attention

A potential deterioration of the credit portfolio resulting from adverse developments in the real economy is the main risk to the Czech banking sector. Its sources lie not only in a potential worsening of the situation abroad, but also in a potential decrease in domestic demand. The level of credit risk was broadly flat in 2013 and cannot be expected to fall significantly in the near future despite the improving macroeconomic data. Regardless of the economic recovery, some industries are still experiencing a strong contraction, with financial indicators deteriorating and financial reserves shrinking in some firms. This applies to small enterprises to an increased extent. Distress among many debtors from the corporate and household sectors is currently being dampened by low interest rates on loans. If these rates were to rise, whether as a result of an increase in liquidity premia or a reassessment of risk premia, the number of loan defaults could increase significantly. The persisting elevated level of credit risk is evidenced by the evolution of non-performing loans (NPLs) and provisioning (see Chart V.13). From this it can be deduced that new NPLs are continuing to flow into bank balance sheets and credit risk costs are therefore rising steadily. However, this trend is associated mainly with loans to non-residents (see section 4.1).

### Banks must maintain a high loss-absorbing capacity

Czech banks currently have robust capital adequacy and a very favourable aggregate leverage ratio. This is aided by their ability to maintain adequate profitability even in the adverse macroeconomic environment, which, in turn, is due partly to the possibility of obtaining funds at relatively low cost. For this favourable situation to continue, the high public and investor confidence in the stability of the Czech banking sector needs to be maintained. As the quality of the NPL portfolio is deteriorating, i.e. these loans are continuing to migrate to the loss category and the share of classified loans that are not actually past due is falling, it is vital for banks to remain prudent in their lending activities and subsequent loan classification and provisioning. The importance of prudence is increased by indicators suggesting that credit risk might be underestimated, such as a decline in implicit risk weights without any apparent move away from risky exposures and a sizeable amount of loans not yet categorised as NPLs even though they are at risk of default. Maintaining robust capital buffers is of particular importance for banks that are systemically important by dint of their position and character. To this end, the CNB is ready to start applying the relevant capital buffers already this year and to actively use the options available under CRD IV in the period ahead if it identifies systemic risks (see section 5.3).

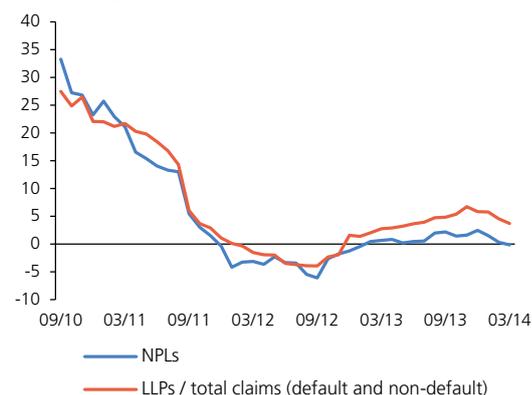
### The CNB will continue to focus on the approach of banks and credit unions to assessing credit risk

The banking sector as a whole is in good shape, but significant differences persist between individual institutions, including in their approaches to providing riskier types of loans. In its supervisory work, the CNB will therefore focus on making sure that credit institutions

CHART V.13

#### Growth in NPLs and ratio of loan loss provisions to total claims

(year-on-year change in %)



Source: CNB

Note: The data are adjusted for the exposures of the Czech Export Bank and take into account the merger of the Czech and Slovak UniCredit Bank.

appropriately value the risks linked with their claims, assess collateral quality in a conservative manner, and set sufficient loan loss provisions. This will apply to an increased extent to the credit union segment, where the level of risk has long been elevated and where the relevant law needs to be amended to improve the situation (see Box 6). Like its partner supervisory authorities in the EU, the CNB will focus in the period ahead on whether banks set sufficiently conservative risk weights for the calculation of capital requirements when applying advanced approaches, and in particular on whether they underestimate probabilities of default and final losses given default.

#### **BOX 6: THE CURRENT AND EXPECTED REGULATORY FRAMEWORK FOR CREDIT UNIONS**

Developments in the credit union segment in recent years have led to an intense debate regarding the principles of operation of these institutions and the adequacy of the current regulatory framework. This box aims to (i) discuss the desirable principles of operation of credit unions, (ii) describe how credit unions currently operate and how the current business conditions in this segment contribute to its elevated level of risk, and (iii) outline current proposals for possible regulatory changes that would stabilise the situation in this segment in the long run.

Credit institutions such as credit unions are common in many European countries, where they operate mostly as a complement to standard commercial banking. As in the case of banks, their main activity consists of accepting deposits and providing loans. In contrast to banks, however, their operations should be dominated by the mutuality principle, with credit unions providing deposit and lending services primarily or solely to their members in a particular community, occupation and so on. Members should also be allowed to actively participate in the governance of the credit union. A rule of one member one vote regardless of membership contribution is commonly applied abroad, further reinforcing the membership principle.<sup>4</sup> Given the membership principle, the initial capital needed for the operation of a credit union should consist primarily of the membership contributions of small savers. The capital requirements for the establishment of a credit union are therefore considerably lower than those for a bank. In the Czech Republic, the minimum initial capital of a credit union is set at CZK 35 million, while the minimum for banks is CZK 500 million. The objectives and principles of

<sup>4</sup> MF CR (2014): *Final Assessment Report on the Impacts of the Act Amending Act No. 87/1995 Coll., on Credit Unions and Certain Related Measures and on the Amendment of Czech National Council Act No. 586/1992 Coll., on Income Taxes, as amended, April 2014*, pp. 27–28.

operation of banks and credit unions should thus differ significantly despite the fact they have similar lines of business.

One of the characteristic features of the Czech credit union sector is low coverage of NPLs by provisions. It is often argued that credit unions do not create provisions to such an extent as banks because most of their loans are backed by collateral in the form of property. However, it should be noted that the loans for which banks create provisions are usually collateralised as well. It is vital for collateral to be valued conservatively, especially in the case of property. This is why the standards of the World Council of Credit Unions recommend that at least 35% of non-standard and doubtful loans and 100% of loss loans should be covered by provisions. However, many Czech credit unions do not follow this recommendation.

In addition, the operation of credit unions in the Czech Republic is often non-compliant with the other principles outlined at the beginning of this box. The low capital requirement compared to banks is inconsistent with the fact that credit unions' business model is not limited. Credit unions in the Czech Republic have thus become rather similar to banks and are often a source of funding for a narrow set of individuals at the expense of the mutuality principle. Their role in society has therefore been greatly suppressed. However, credit unions are attractive to the public because of the higher interest rates they offer on deposits, which, as in the case of banks, are fully insured (up to EUR 100,000). As a result, rank-and-file members have a reduced interest in the running of the union and its management is often controlled by a few members only. This is because in the Czech Republic the number of votes is derived from the size of the membership contribution.

The business model of Czech credit unions also differs significantly from the traditional cooperative banking model in that credit unions can be members of groups and thus face a whole range of risks on a consolidated basis. In some credit unions this has been reflected in substantial concentration of loan portfolios on just a few debtors and in less prudent lending, in many cases not accompanied by a thorough analysis of the applicant's creditworthiness. This is evidenced by the CNB's findings from inspections in credit unions. Loan quality worsens significantly as the loan amount rises. Default rates start rising sharply at the CZK 15 million level and are very high for loans exceeding CZK 30 million. Risk management thus fails most significantly in respect of large loans.

These problems and discrepancies were also identified in the report of the 2011/2012 IMF FSAP mission, which labelled the

credit union segment as risky. It also pointed out that although the segment is small, it might become a sizeable burden on the deposit insurance scheme and its problems might adversely affect the reputation of the entire financial sector. The mission therefore recommended substantial changes to the regulations governing this segment.

The CNB has been trying to eliminate these shortcomings since 2006, when it took over supervision of this segment. It has pushed through major changes to the prudential rules. However, in order to implement essential changes, including the IMF's recommendations, the relevant law must be amended. The current proposal for legislative changes in the credit union segment, prepared by the Ministry of Finance in partnership with the CNB, includes the introduction of a loan ceiling of CZK 30 million, the restriction on the provision of products to non-members and the introduction of the minimum basic membership contribution.<sup>5</sup> These measures are aimed at strengthening the mutuality principle and increasing the interest of credit union members in proper governance of the credit union and in its financial results. A proposal to increase the mandatory contribution from after-tax profit to the risk fund and increase the contribution to the deposit insurance fund aims to take into account the greater level of risk of credit unions. Conversion of credit unions into banks is also proposed where the credit union's scope of business increases substantially and its total assets exceed CZK 5 billion.

#### **An extended period of very low long-term interest rates poses a challenge to insurance companies**

A persisting environment of low long-term interest rates is a major risk currently facing insurance companies, especially in life insurance. These rates influence not only technical provisions given the discount rate used, but also the insurance company's ability to generate sufficient returns on financial placement to cover the guaranteed technical interest rate in long-term life insurance. If the low long-term interest rates were to persist for an extended period, the profit margin would further decline, adversely affecting solvency. Insurers might then start seeking riskier, higher-yielding investments or move away from guaranteed products to unit-linked investment life insurance. If the investment portfolio structure were to become riskier, insurance companies would also become more sensitive to financial market fluctuations and upward shocks to interest rates.

<sup>5</sup> See the *Proposal for an Act amending Act No. 87/1995 Coll., on Credit Unions and Certain Related Measures and on the Amendment of Czech National Council Act No. 586/1992 Coll., on Income Taxes, as amended* (<https://apps.odok.cz/kpl-detail?pid=KORN9HZGTLGV>)

Although the current capital position of the insurance sector as a whole is strong enough to cover the above risk in the medium term, insurance companies differ in the robustness of their solvency positions and in their interest rate sensitivity. In their internal risk assessments to be carried out for the first time next year under Solvency II,<sup>6</sup> insurance companies should therefore focus on the risk of persisting low interest rates, as well as assessing credit risk not only in isolation, but also in the context of other investment risks, reinsurers' credit risk, cancellation risk and other insurance risks, and testing their solvency position in relation to stress scenarios over the assessment horizon. After assessing the size of the impact of the risk of persisting low interest rates, insurers should adopt appropriate measures to mitigate this risk. One possible conservative measure would be to create a reserve from the insurance company's current profit from financial placement for future contributions to returns paid to policyholders. CNB supervisors will continue to focus on interest rate risk.

**Pension management companies must focus on the risks associated with a potential rise in interest rates**

A sharp rise in interest rates from their current very low levels poses a significant risk to pension management companies, as the transformed funds they manage hold most of their portfolios in debt securities.<sup>7</sup> Pension management companies should therefore prudently assess the size of the impact of a potential rise in interest rates and the ensuing decline in the prices of their debt securities holdings. Such developments would lead to negative valuation differences, as occurred in 2007–2009, and the value of the assets of the transformed fund could fall below the value of its liabilities, as happened in the past. In such a situation the pension management company would be obliged to increase the capital of the transformed fund.

**The risk of domestic property prices becoming overvalued is relatively low...**

The modest growth in residential property prices in 2013 can be regarded as a return approximately to equilibrium. With the onset of the economic recovery, the gradual rise in residential property prices can be expected to continue, although the room for price growth will still be limited by the labour market situation and slow growth in household income. The low interest rates on loans for house purchase imply that speculative purchases of apartments for investment are profitable, but the evolution of yields on alternative assets is making this strategy less attractive. As

6 The upcoming Solvency II regulation, which insurance companies are preparing for, will take full effect on 1 January 2016. The Omnibus II Directive, which amends the original Solvency II Directive approved in 2009, introduces volatility adjustment and matching adjustment for the risk-free yield curve used to value technical provisions. These adjustments were introduced in order to reduce the volatility of insurers' available capital. What is very important, however, is that Solvency II should bolster the risk management culture and also strengthen asset and liability management, which is not of sufficient quality in some insurance companies given the current Solvency I asset valuation principles, among other things. Solvency II requires a forward-looking risk-oriented approach, with insurance companies assessing their risks in the medium term. A pilot risk assessment will already take place as part of the implementation of the Solvency II guidelines in 2015.

7 The nominal value of bond holdings was CZK 228 billion at the end of 2013.

growth in loans for house purchase and in the number of property transactions remains moderate, the danger of a property price bubble emerging is not currently relevant in the Czech Republic as a whole.

**... there are signs of overheating in foreign property markets**

Unlike the Czech economy, a number of advanced countries are showing signs of property market overheating. A correction of these imbalances could have indirect effects on the domestic property market, especially in the commercial property segment, where increased activity of foreign investors can be seen. Financial stability analyses conducted by foreign central banks link the property market overheating with relaxed credit standards in property financing (lower client-income and down-payment requirements, and the provision of interest-only loans) and with over-optimistic assessment of credit risk by banks. Credit standards on the Czech property market remain relatively conservative. However, growing diversity between banks' approaches and increasing attempts to provide riskier loans for house purchase can be observed.

**The CNB will legislate for and apply prudential instruments focusing on property exposure risks**

In case the domestic property market starts to show signs of overheating in the years ahead, the CNB stands ready to apply the tools defined in the CRD IV/CRR legislation. These tools include higher sector-specific risk weights for the calculation of capital requirements for banks. At the same time, the CNB will legislate for the power to apply other instruments included in ESRB recommendations, in particular limits on LTV ratios, which are dealt with in more detail in section 5.4.

**The risks associated with sovereign exposures will continue to be monitored regularly**

In FSR 2012/2013 the CNB pointed out that the accumulation of domestic sovereign exposures in bank balance sheets was leading to close links between the banking and government sectors. Significant holdings of domestic government bonds, which are the source of these links, are natural for many reasons. At the same time, though, they may become a source of systemic risk if doubts concerning public finance sustainability start to emerge. However, that is currently not the case in the Czech Republic, as its current fiscal situation is sustainable and sovereign risk therefore does not pose a threat to financial stability. The fact that the share of government bonds in the total assets of banks in the Czech Republic declined year on year can also be regarded as positive. Nonetheless, one can speak of increased concentration risk in some banks in this regard. In addition to sovereign risk, the government bond portfolio is also associated with market risk, which increased further in 2013 and the first few months of this year as a result of global financial market developments (see section 3.1). If the CNB were to assess the risks associated with holdings of sovereign exposures as systemic, it could proceed in accordance with the updated Pillar 2 regulatory framework by evaluating concentration risk or it could apply the systemic risk capital buffer based on sovereign exposures (see section 5.5 for details).

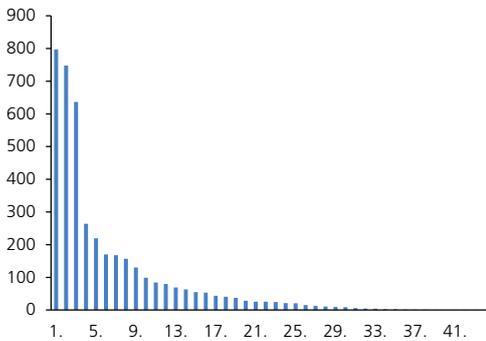
**Changes in EU financial regulation and the banking union project require a high degree of attention**

Significant changes in banking sector regulation in the EU were agreed in 2013 and the first few months of 2014. The most important include a directive on establishing a framework for recovery and resolution and amendments to the directive on deposit insurance schemes. The euro area banking union project also moved into an advanced stage. In the years ahead, this may have a significant effect on the functioning of the Czech banking sector, even though the Czech Republic will not be involved in the banking union, at least not from the beginning. The possibility of the conversion of some major subsidiary banks into branches of their foreign owners is one of the risks associated with the changes in the EU. The CNB will devote considerable attention to these risks and react to them appropriately (see Box 7 in section 5.6).

CHART V.14

**Assets of individual banks and foreign bank branches in the Czech Republic as of 31 March 2014**

(CZK billions; x axis: banks in sequence)

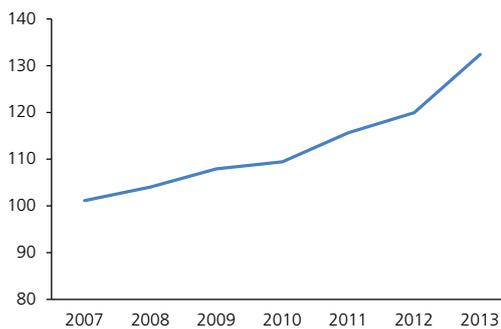


Source: CNB

CHART V.15

**Assets of the Czech banking sector in relation to GDP**

(as % of GDP)



Source: CNB

**5.3 CAPITAL BUFFERS AND THEIR SETTINGS IN THE CZECH REPUBLIC****5.3.1 BUFFERS RELATING TO SYSTEMIC IMPORTANCE**

Based on the experience of the financial crisis, the foundations have been laid in recent years for regulation of banks on the basis of their systemic importance for the global or domestic economy, i.e. on the basis of the consequences their collapse would have for the global or domestic economy.<sup>8</sup> In EU legislation, the Basel Committee on Banking Supervision's (BCBS) original proposals were to a large extent incorporated into CRD IV, which took effect in July 2013. This directive creates room for regulation on the basis of systemic importance via three capital buffers: the capital buffer for global systemically important institutions, the capital buffer for other systemically important institutions and the systemic risk buffer. The transposition of the relevant parts of this directive into Czech law should take the form of a law amending the Act on Banks, the Act on Credit Unions, the Capital Market Undertakings Act, the Act on the CNB and the Building Savings Schemes Act, which is expected to be adopted in mid-2014.

As is clear from the other sections of this Report, the Czech banking sector currently faces no acute risks and is not a source of risk to the stability of the financial sector as a whole. However, given the long-term structural characteristics of the Czech financial and economic system, including the high concentration of the banking sector (see Chart V.14) and its key significance for the Czech economy (see Chart V.15), the CNB has decided that banks should be regulated on the basis of systemic importance as soon as the relevant laws take effect. The CNB is therefore ready to take the relevant decisions and introduce capital requirements for banks based on their systemic importance into regulatory and supervisory practice as soon as the implementing law and the CNB decree stipulating the details of the capital buffer calculation take effect.

No bank having its registered office in the Czech Republic satisfies the criteria for systemic importance for the global economy laid down in CRD IV, so the capital buffer for global systemically important institutions is not relevant to the Czech Republic. At the same time, the current version of CRD IV sets a maximum capital buffer for other systemically important institutions of just 2% of the bank's total risk. As a 2% buffer may not be sufficient given the systemic importance of some banks, the CNB is prepared to implement systemic importance-based regulation by means of the systemic risk buffer.

This buffer will be set on the basis of the estimated systemic importance of individual banks. The indicators used for this estimate take into

<sup>8</sup> In line with the literature and the media, we are somewhat inaccurately using the term "collapse" (of a bank) for all situations where a bank's capital falls to dangerously low levels. The literal collapse of the bank, i.e. the revocation of its banking license, is, however, only one of a range of possible solutions to such situations.

account the characteristics of the Czech banking sector and cover the areas of interconnectedness, substitutability and complexity. The second step then involves setting the appropriate buffer for the given bank. This second step is based on the principle of equal expected impact, which can be expressed as follows: a rise in systemic importance should be accompanied by a fall in the probability of collapse so that the expected impact of collapse (i.e. the importance multiplied by the probability) is roughly equal for all banks for which the buffers are set. The probability of collapse can be reduced by setting a higher capital buffer.<sup>9</sup>

The CNB analysed the consequences of the above procedure for the Czech banking sector back in 2013 and concluded that the four systemically most important banks must be required to satisfy the systemic risk buffer requirement. The relevant banks were informed about this in the second half of 2013. All these banks hold capital exceeding the current (i.e. microprudentially motivated) CNB requirements. It will thus be possible to demand compliance with the systemic risk buffer together with compliance with the capital conservation buffer (see below) as soon as the relevant legislation takes effect without forcing banks to seek ways of quickly increasing their capital.

The imposition of an obligation to maintain a systemic risk buffer on a bank due to its systemic importance has no direct connection with any future decision on the resolution action to be taken by the CNB and the Czech government if that bank runs into a crisis. The obligation to maintain a relevant buffer is a preventive measure designed to reduce the probability of a bank experiencing a crisis. Crisis resolution decisions will always have to take into account the current situation of the bank and the financial sector as a whole, and so cannot be anticipated. As from 2015, this procedure will be strongly affected by the recovery and resolution directive (see section 5.6).

### 5.3.2 THE CAPITAL CONSERVATION BUFFER

In addition to the systemic risk buffer and the capital buffer for global or other systemically important institutions, the transposition of CRD IV into Czech law also means the introduction of a capital conservation buffer of 2.5% for all banks and credit unions. The version of the amending law currently being discussed in the Czech Parliament envisages immediate introduction of the capital conservation buffer.

The final macroprudential capital buffer is a countercyclical one. Its setting in the Czech Republic is dealt with in the following section.

<sup>9</sup> The analytical basis for estimating systemic importance and setting the relevant capital buffer is the methodology described in Skořepa, M., Seidler, J. (2013): *An Additional Capital Requirement Based on the Domestic Systemic Importance of a Bank*, FSR 2012/2013.

### 5.3.3 THE PROPOSED CNB METHODOLOGY FOR SETTING THE COUNTERCYCLICAL CAPITAL BUFFER IN THE CZECH REPUBLIC

CRD IV introduces into EU regulatory practice a new macroprudential tool, the countercyclical capital buffer (CCB), designed to increase the banking sector's resilience to cyclical risks associated with fluctuations in lending. Credit institutions (e.g. banks and credit unions) should create such a buffer on the instructions of the supervisory authority in the expansionary phase of the credit cycle. This phase is usually characterised by the formation of financial imbalances and the accumulation of systemic risk as a result of high lending activity. The CCB should conversely be "released" by banks and credit unions at times of economic downturn or during a financial crisis when credit institutions tighten the credit conditions in response to rising loan losses, giving rise to a risk of a credit crunch in the sound part of the private sector. The CCB should thus not only increase the sector's resilience by means of higher capital for covering potential losses, but also prevent an additional shock to the real economy at times of subdued economic activity and falling credit supply from credit institutions.

Although CRD IV does not envisage full introduction of the CCB until 2016, the Member States have the discretion to introduce it as early as 2014. The amending law relating to CRD IV/CRR empowers the CNB to set the CCB in the Czech economy. The CNB is planning to use its discretion and assess and set the necessary CCB every quarter after the above amending law takes effect during 2014.

CRD IV requires the regulatory authorities to take into account the deviation of the credit-to-GDP ratio from its long-term trend when setting the CCB in their jurisdictions. Regulatory authorities should also apply the methodological recommendation of the European Systemic Risk Board (ESRB), which is based largely on the original methodology proposed by the BCBS. According to this recommendation, a non-zero CCB in a given country should be set on the basis of the magnitude of the deviation of the credit-to-GDP ratio from its long-term trend, which is obtained by applying the Hodrick-Prescott (HP) filter with a high smoothing parameter ( $\lambda = 400,000$ ) to the longest available time series.

Over the last three years, the CNB has published several analyses in its Financial Stability Reports dealing with the calibration of the CCB from the Czech banking sector's perspective.<sup>10</sup> These analyses pointed to the fact that the original methodology proposed by the BCBS is not easily applicable in the Czech Republic. This is primarily due to the limited length of the relevant time series, structural breaks in the time series

<sup>10</sup> FSR 2010/2011, pp. 112–120, FSR 2011/2012, pp. 82–83, FSR 2012/2013, pp. 82–85.

linked with the late-1990s banking crisis, and the existence of trends specific to converging economies.<sup>11</sup>

The fact that the BCBS methodology may send out confusing signals in some countries is admitted even in the ESRB recommendation itself. For this reason, the national authority should set the CCB taking into account other indicators that have a good ability to identify excessive credit growth and the accumulation of systemic risk. In this respect, the current proposal for the transposition of CRD IV into the amending act makes it possible for the CNB to set the CCB with due regard the specifics of the Czech economy.

For the above reasons, when setting the CCB the CNB will use a wider range of indicators and consider the specifics of a converging economy. The decision-making on the size of the CCB will thus take the form of “guided discretion”. A similar approach to CCB-setting is applied by other countries, such as Switzerland, Sweden and Norway.<sup>12</sup> The set of indicators considered by the CNB in its CCB decision-making may vary depending on the nature of the current risks. If, for example, credit growth is very uneven across credit segments (as it has been in the past – see Chart V.16), the CCB may not be the best macroprudential tool even if the aggregate values suggest excessive credit growth, as it may put an excessive burden on lending in non-problematic segments while insufficiently tightening the conditions in problematic segments. In such case, the setting of a non-zero CCB may conversely motivate credit institutions to lend even more to segments that seem more profitable to them. To eliminate any minor imbalances in the credit market the CNB would therefore use other macroprudential tools, for example an increase in the sectoral risk weights or a stricter LTV ratio (see section 5.4).

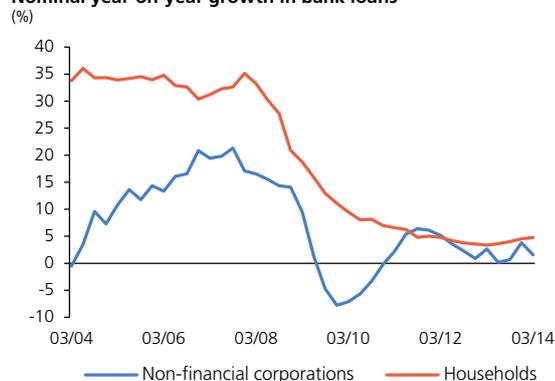
### Assessment of the current situation

The current credit market situation continues to be characterised by subdued activity. Year-on-year growth in bank lending to residents was just under 2.7% at the end of 2014 Q1, well below the ten-year average (see Chart V.17). Loans to non-financial corporations were up by 0.6% and loans to households by 4.6% year on year. The credit growth estimate for the next three years also indicates no threat of excessive credit expansion for either non-financial corporations or households (see section 2).

Looking at the trend level of the credit-to-GDP ratio, it is clear that the current ratio of bank loans to GDP is below the trend of the last ten years (see Table V.2).<sup>13</sup> Indicator 1, which was constructed on the basis of the

CHART V.16

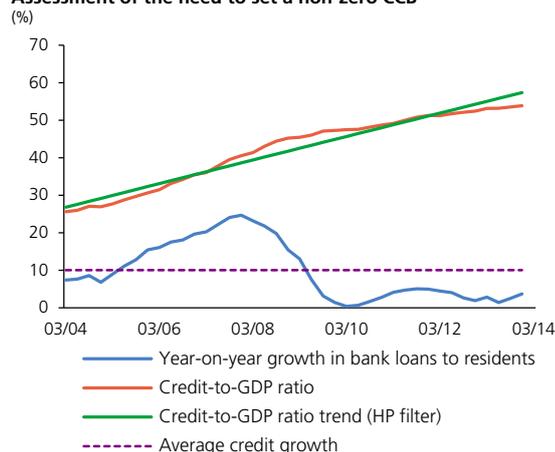
#### Nominal year-on-year growth in bank loans



Source: CNB

CHART V.17

#### Assessment of the need to set a non-zero CCB



Source: CNB

Note: The credit-to-GDP ratio trend corresponds to the HP filter calculation of the gap for indicator (2) in Table V.2.

<sup>11</sup> These problems are also faced by other countries that have been through a process of economic transformation.

<sup>12</sup> Sources:

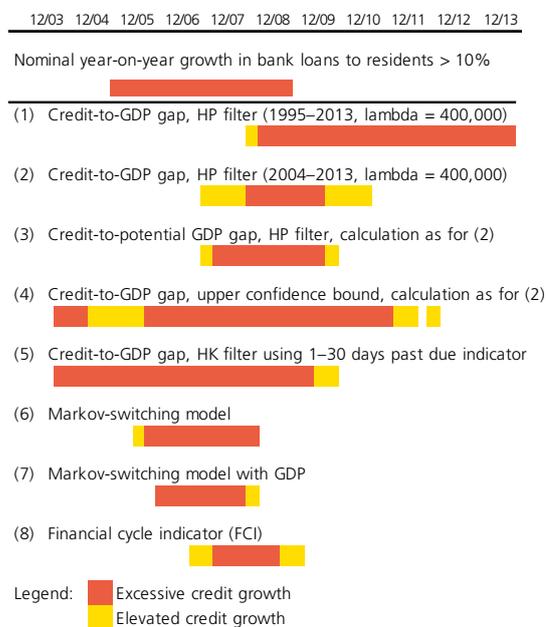
Switzerland: <http://www.snb.ch/en/mmr/reference/CCB%20communication/source>.

Sweden: [http://www.riksbank.se/Documents/Rapporter/Ekonomiska\\_kommentarer/2013/rap\\_ek\\_kom\\_nr02\\_130503\\_eng.pdf](http://www.riksbank.se/Documents/Rapporter/Ekonomiska_kommentarer/2013/rap_ek_kom_nr02_130503_eng.pdf).

Norway: <http://www.norges-bank.no/en/about/published/speeches/2013/aci-norge/>.

<sup>13</sup> A more detailed description of the indicators used in the table is presented in FSR 2012/2013, pp. 82–85.

TABLE V.2

**Identification of excessive borrowing and accumulation of risks according to various indicators**

**For indicators 1–5:** credit-to-GDP gap > 2 pp for excessive growth, > 0.7 pp for elevated growth. **For indicators 6–7:** excessive credit growth for probability of credit expansion state > 95%, elevated credit growth for probability > 85%. **For indicator 8:** excessive growth for FCI > 0.5, elevated growth for FCI > 0.3.

Source: CNB

Note: HK filter stands for Hirose-Kamada filter.

BCBS methodology on the time series since 1995, is affected by write-offs of bad loans from banks' balance sheets and cannot be used to identify periods of excessive credit growth. When the data for the last ten years (i.e. since 2004), which are not distorted by the above fact, are used, the conclusions are similar across various specifications of the calculation of the trend credit-to-GDP ratio and do not indicate that the current credit-to-GDP ratio is excessive (indicators 2–5). When a wider credit aggregate (covering all loans to non-financial corporations and households and also corporate bonds) is used instead of bank loans, the results remain qualitatively similar.<sup>14</sup>

The current credit growth rate and credit-to-GDP ratio were also analysed using the Markov-switching (MS) model in order to identify the probabilities of various phases of the credit cycle (indicators 6 and 7, Table V.2). The MS model outputs can be interpreted as meaning that the risks associated with excessive credit growth can be considered very low. The above conclusions are corroborated by the newly constructed aggregate financial cycle indicator (FCI) (see the thematic article *An Indicator of the Financial Cycle in the Czech Economy* in this Report).

None of the other indicators under review relating to the risk of excessive credit growth in the domestic economy are elevated either: private sector debt is still relatively low, total debt service does not represent an excessive burden thanks to low interest rates (see section 2.1) and residential property prices were broadly flat in 2013 and the CNB expects them to rise only slightly in the coming years (see section 3.2). The share of loans 1–30 days past due, which was identified as a relevant leading indicator in FSR 2012/2013, is also below its long-term average.

All the above findings point to the relatively straightforward conclusion that the cyclical risks are low and that the current phase of the credit cycle in the Czech Republic does not necessitate the creation of a countercyclical buffer, i.e. the setting of a non-zero CCB. The conclusions in FSR 2012/2013 thus remain valid for the future outlook represented by the *Baseline Scenario*, and it is highly unlikely that a non-zero CCB will have to be set in the next two years either.

<sup>14</sup> At the end of 2013, bank loans accounted for about 65% of the private sector's total loan debt.

#### 5.4 REGULATION OF RISKS ASSOCIATED WITH EXPOSURES TO THE PROPERTY MARKET

The instruments for mitigating systemic risk also include sector-specific regulations. These apply mainly to bank exposures linked with property market developments. Two possible aspects of regulation of the risks undertaken by banks in financing residential property are described below. The first is stricter capital regulation of property exposures using increased risk weights and minimum LGD values under the CRR. The second is the setting of upper limits on the LTV (loan-to-value) ratio for individual retail loans for house purchase, i.e. the ratio of the size of the loan to the value of the pledged property.

The two types of instrument can be complementary, as they act through different channels. Capital regulation, which acts through bank balance sheets, may not always be fully sufficient and capable of adequately dampening credit creation in the banking sector as a whole. LTV limits may assist in preventing bank balance sheets (individual as well as aggregate) from swelling at a time of an interconnected credit and property boom, as they restrict the overall borrowing capacity of the household sector.

##### **Regulation of property exposures under CRD IV/CRR**

One of the main legislative changes last year was the approval of the CRD IV/CRR regulatory package, which among other things changes and broadens the regulation of risks associated with exposures secured by property.<sup>15</sup> The CRR took effect on 1 January 2014. However, it has yet to be complemented with regulatory technical standards, which the EBA is required to develop. These standards will specify the conditions for setting stricter risk weights and LGD values for exposures secured by property and the criteria for setting the pledge value of a property. The standards should be prepared by the end of 2014.

The CRR introduces the option of setting higher risk weights or tightening the settings of certain other regulatory parameters for property-secured exposures based on the risks identified. The regulations differ for the standardised approach and the internal ratings based (IRB) approach.

Under the standardised approach, property exposures are covered mainly by Articles 124 to 126 of the CRR, which specify the risk weights in more detail, broken down into residential and commercial immovable property.<sup>16</sup> Unless it is included in another exposure category (e.g. exposures in default) an exposure fully secured by property is assigned

<sup>15</sup> For a description of CRD IV/CRR, see the CNB's Financial Market Supervision Report 2013, section *EU regulations in 2013*, or section 5.6 of this Report.

<sup>16</sup> A residence is treated as residential property. To assign a preferential risk weight, the property must be either occupied or let by the owner or in the case of an exposure to a tenant who has an option to purchase. Property other than residential property is therefore treated as commercial immovable property and includes, for example, office, retail and industrial property.

a risk weight of 100%. If an exposure is fully secured by property and meets other qualitative criteria, a preferential risk weight as low as 35% and 50% may be assigned for exposures secured by residential property and commercial property respectively. For exposures fully secured by residential property, the LTV ratio must not exceed 80% of the market value or the mortgage lending value of the property; for exposures fully secured by commercial property, the LTV ratio may not exceed 50% of the market value or 60% of the mortgage lending value. The part of the exposure exceeding the value of the mortgage lending value will be assigned the risk weight applicable to unsecured exposures of the counterparty involved. If these conditions are met, the preferential risk weights will be the default ones for exposures secured by property.

The CRR allows the CNB to set a higher risk weight of up to 150% for both types of property exposures. At the same time, the CNB may set stricter criteria for the application of preferential risk weights. For example, it may reduce the share of the exposure to which the lowest risk weight can be applied (a reduction of the requested LTV ratio).

Under the IRB approach where the institution does not estimate LGD itself and the exposure is compliant with the necessary over-collateralisation,<sup>17</sup> the institution may, pursuant to Article 230 of the CRR, apply a lower minimum LGD than for unsecured exposures – 35% instead of 45%. For the IRB approach where the institution estimates LGD values itself provided that all the conditions are met, minimum average weighted LGD values are specified (10% for exposures secured by residential property and 15% for exposures secured by commercial property). If the CNB assesses the property market situation as risky, it may specify a higher LGD value for banks using the IRB approach.

The CNB will be obliged to periodically (at least annually) analyse the property market and assess whether the preferential weights and LGDs are appropriately based on the loss experience of such exposures and forward-looking property market developments. Likewise, it may set higher weights or stricter other criteria after identifying risks to financial stability on the basis of the loss experience of such exposures, expected market developments and other risk indicators. The CNB will consult the EBA if, on the basis of this assessment, it decides that stricter criteria or risk weights are necessary. Institutions will have a six-month transitional period before the stricter criteria are applied.

#### **LTV regulation**

While the regulation of capital requirements for property exposures under CRD IV/CRR is an already approved part of EU law that will be fully implemented in national legislation with no possibility of additional modifications, the regulation of LTV is left entirely to national discretion. However, application guidelines are provided in ESRB documents (see section 5.6). Different transmission channels are mentioned for sectoral

<sup>17</sup> Over-collateralisation of the exposure of 140%, corresponding to an LTV of roughly 71%.

capital requirements and for LTV (LTI) limits, with the former mostly affecting credit supply and the latter primarily affecting credit demand. It therefore makes sense to use both instruments at the same time.

The ESRB document is relatively optimistic as regards the effectiveness of the two instruments. It states that LTV limits may be more effective in influencing the credit cycle than capital instruments. LTV limits may also be applied to a broader group of financial institutions. In addition, the document mentions the risk of banks having an incentive to overvalue collateral and the risk of banks circumventing limits, for example by splitting up loans or topping up with non-secured loans. It also states that frequent changes in the LTV limit are not appropriate given the increased possibility of stronger credit growth in anticipation of a tightening of the limit. Another risk is that LTV and LTI limits may affect decisions regarding housing ownership versus rental and the availability of loans to some groups of the population and may therefore be regarded as politically sensitive.

Risks stemming from property exposures are regulated using LTV limits in many EU and non-EU countries (see Table V.3).<sup>18</sup> Various countries started regulating LTV for various reasons, mostly of a macroprudential nature (to prevent excessive lending in credit booms), but often also for microprudential or consumer protection reasons. Experience with the use of the LTV tool differs considerably across countries. It is often said that LTV restrictions have had a favourable effects on the credit market, but the impact on property prices is less clear-cut. Although it is still premature to evaluate the impacts of LTV regulation (implemented mostly in 2010–2013), we can generally say that the use of LTV limits appears to be more successful in countries where they were applied relatively early and not in reaction to rapid credit or property price growth.

The manner of application differs in some respects from country to country, but the LTV limit tends to be applied only to new or refinanced residential loans, not to loans provided in the past. In most countries the LTV limit pertains only to exposures relating to residential property, with regulation of exposures to commercial property being less common (e.g. Poland). This may be due to complications in defining the loans to which such regulation applies. While for residential property it is sufficient to use a definition similar to the definition of loans for house purchase used in CNB statistics, for commercial property the definition is very complicated and there is a higher risk of regulatory arbitrage.

<sup>18</sup> According to the IMF, in a sample of 46 countries LTV limits were being applied in 24 countries, sectoral capital requirements in 23 countries and LTI limits in 14 countries. In 18 cases two instruments were being used in combination and in seven cases all three instruments were being used. In most countries the limit is around 80%, which corresponds to the limit set for preferential risk weights in the STA approach.

TABLE V.3

Use of LTV limits in individual countries

Country	LTV limit	Country	LTV limit
Austria	80%*	Netherlands	104%
Cyprus	70%	Poland	95%; 75%
Germany	80%*	Romania	60%–85%
Finland	90%	Sweden	85%
Hungary	45%–80%	Norway	85%
Lithuania	85%	New Zealand	80%
Latvia	90%		

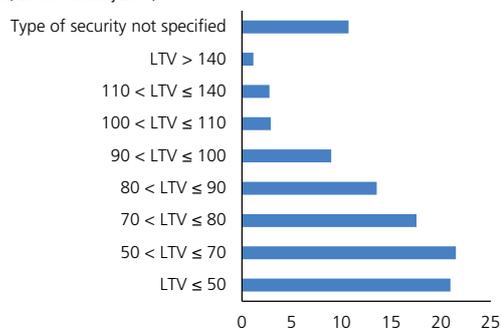
Source: National supervisory authorities

Note: The figures for Poland are the LTV limits for residential and commercial property respectively. The figures for Hungary and Romania are the ranges depending on the loan currency.

\* For Germany and Austria, the regulation only applies to building societies.

CHART V.18

**Share of bank loans to households in each LTV interval**  
(%; as of 31 January 2014)



Source: CNB

Most countries limit the provision of new individual loans with high LTV ratios, although in some cases banks are allowed to provide loans with a high LTV but the share of such loans in total new loans provided during a specified period is limited.

In most countries the LTV limit pertains to bank loans, but in some countries it is also applied to non-bank providers of loans for house purchase. In some cases the supervisor's authorisation is defined directly in law, but elsewhere it is derived from less binding acts or mere recommendations from the regulator. In a number of the countries under review, (especially Poland, Hungary and Romania), LTV regulation was also motivated by protecting debtors and restricting foreign currency lending.

Immediate application of LTV limits in the Czech Republic is not necessary at present. Following sizeable decreases in the past, property prices are roughly at equilibrium and only modest price growth is expected in the near future (see section 3.2 and the text below). At less than 60%, the aggregate LTV ratio is relatively low. As mentioned in FSR 2012/2013, however, the aggregate level does not provide a complete picture, as information about loans with a high LTV may be hidden within a portfolio of earlier loans with a lower LTV. Data from new statistical surveys show that loans with a relatively high LTV are not negligible (see Chart V.18).

#### Assessment of equilibrium property prices

As stated above, under the CRR the CNB will be obliged to periodically analyse the property market and assess whether the preferential risk weights and other criteria for exposures secured by property are appropriately based on current and future developments in the Czech property market. At the same time, the CNB will assess the applied risk weights and LGD levels in reports on property market exposure losses (Article 101 of the CRR). The CNB will thus mainly analyse the sustainability and potential overvaluation of property prices. This type of analysis has been performed in the Financial Stability Reports since 2004 (see section 3.2).

The assessment of equilibrium property prices should be based on a combination of the results of various methods. Expert judgement will always play a large role in addition to mechanical application of those methods. Suitable methods include relatively simple "statistical" approaches using univariate filters such as the HP filter applied to the apartment price time series and an assessment of ratios such as price-to-rent and price-to-income relative to their long-term averages. However, the assessment of property price sustainability using these simple indicators (see Chart V.19) does not guarantee correct identification of property price overvaluation. Besides the well-known problems with

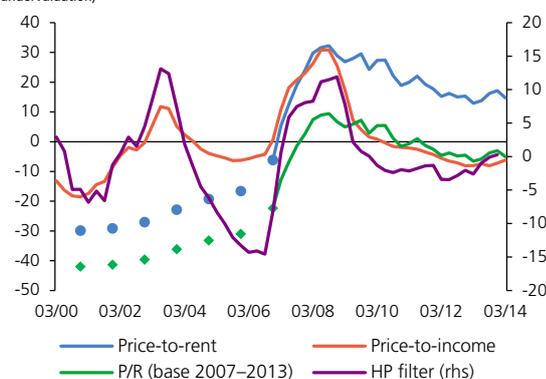
univariate filters,<sup>19</sup> there are issues associated with the use of property price ratios as well. Determining the historical average against which the ratios are compared can pose problems, especially when significant structural breaks have occurred in the past. Take, for example, the price-to-rent ratio, which was relatively low in 2000–2006 owing to widespread rent regulation at the time. This, among other things, pushed rents up to high levels in the unregulated market segment. In addition, the low price-to-rent ratio (or the related high returns on apartment rental) can be explained by the then relatively high interest rates. If we compare the price-to-rent ratio with its average for 2007–2013, apartment prices thus appear undervalued (see Chart V.19).

The shortcomings of the above approaches are addressed to some extent by the “econometric approach” to bubble identification, which compares the market value with the estimated fundamental value of the asset. Three methods are applied in the econometric approach (see Chart V.20). The first one uses simple time series analysis with a broad set of explanatory variables and abstracts from any correlation between growth in property prices and loans for house purchase. The second approach attempts to analyse the heterogeneity of apartments using panel regression estimates for the individual regions of the Czech Republic. The third approach to estimating the apartment price gap is motivated by the existence of a long-term (equilibrium) relationship between the business and credit cycles and the housing price cycle. Overall, the estimates based on the econometric approach suggest lower undervaluation, or even slight overvaluation, compared to the ratios.

CHART V.19

**Simple property price sustainability indicators**

(as % of 2000–2013 average; positive values indicate overvaluation, negative values undervaluation)

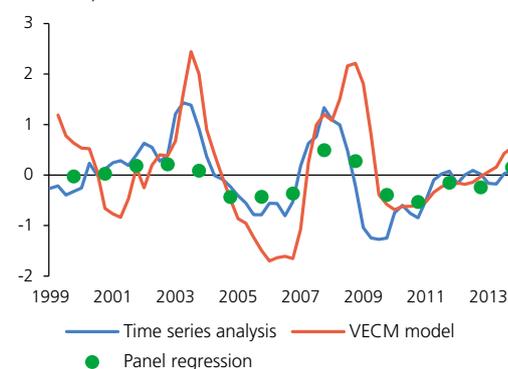


Source: CZSO, IRI, CNB calculation

CHART V.20

**Apartment price gap in the Czech Republic – deviations of actual prices from estimates**

(CZK thousands/m<sup>2</sup>; positive values indicate overvaluation, negative values undervaluation)

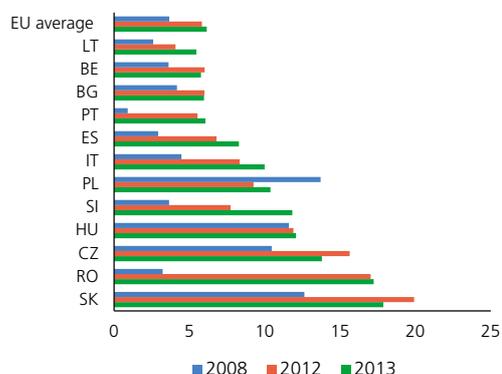


Source: CZSO, CNB calculation (CNB WP 12/2009)

19 For example, the HP filter is subject to end-point bias, which manifests itself in excessive dependence of the price trend estimate on the most recent data, especially in a situation of sharp price changes. Univariate filters also ignore property price fundamentals.

CHART V.21

### Domestic government bonds in MFI balance sheets (%)



Source: ECB, CNB calculation

Note: For other EU countries the share of government bonds in MFI balance sheets is below 5%. The EU average is computed as the arithmetic mean.

## 5.5 REGULATION OF RISKS ASSOCIATED WITH SOVEREIGN EXPOSURES

The CNB indicated in FSR 2012/2013 that it had started to closely monitor the accumulation of domestic sovereign exposures in bank balance sheets. This was due mainly to the risk stemming from the links between the banking and government sectors.<sup>20</sup> The share of government bonds in total bank assets in the Czech Republic was lower at the end of 2013 than a year earlier, but an international comparison reveals that it is still above average (see Chart V.21).

Domestic government bonds are safe assets from the regulatory point of view. There are economic and practical reasons for this. The specific regulatory position covers several areas. In the area of liquidity regulation, government bonds are recommended for inclusion among high-quality liquid assets similarly as for hedging of transactions with central counterparties. With respect to capital regulation, sovereign exposures can be assigned a zero or very low risk weight, which creates only a very low capital requirement for exposures secured by government bonds. As regards market risk, a capital requirement is often created solely for general interest rate risk in respect of sovereign exposures held in the trading portfolio. These types of preferential treatment of government bonds imply that it is desirable and useful from the regulatory point of view to hold them in bank balance sheets. Nevertheless, banks' portfolios should not be concentrated in a single asset even if the regulations permit it. In general, banks should hold a diversified stock of assets from various categories, since it is impossible to predict which assets will be hit by potential shocks.

Exposure to the sovereign sector is not directly restricted in EU legislation, nor can it be restricted under Pillar 1. Rules for large exposures are included in the single rules governed by the CRR, which is a directly applicable EU legal rule. Under the CRR, a limit of 25% of the bank's capital is applied to exposures to all counterparties or groups of connected clients. Exposures to central governments are exempt from these limits. The introduction of limits on sovereign exposures does not count among the cases where a supervisory authority may diverge from the CRR rules.<sup>21</sup>

Consequently, only Pillar 2 remains applicable for the supervision of a specific institution or group of institutions. The CNB generally reviews and assesses the risks which a bank faces or may face. The CNB also reviews and assesses exposure to concentration risk in accordance with CRD IV, which updates the previous Pillar 2. On the basis of such reviews and assessments, the CNB determines whether the measures, strategies,

<sup>20</sup> For more information on the risks stemming from the relationship between the banking and sovereign sectors, see the article *Fiscal Sustainability and Financial Stability* in FSR 2012/2013.

<sup>21</sup> As part of their risk management systems, banks apply internal limits for the sovereign sector which take into account its credit risk, the risk of concentration in respect of this sector, and the volume and structural requirements for liquid assets defined in the CRR.

procedures and mechanisms put in place by a bank provide for proper management of the risk and whether it is sufficiently covered by capital and liquidity buffers. Depending on the result, the CNB may impose remedial measures. For example, it may require the bank to reduce its concentration risk vis-à-vis the sovereign sector.<sup>22</sup>

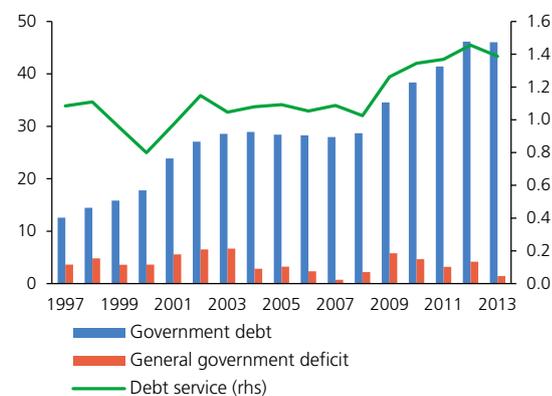
As regards sovereign exposures, the CNB not only assesses whether such exposures are excessively concentrated in bank balance sheets, but also monitors sovereign risk itself. Sovereign risk is currently low (see Chart V.22), but it is gradually increasing in line with the growth in government debt. In this context, Pillar I enables the CNB to require banks using the IRB approach to change their PD or LGD parameters. For this type of exposure, however, some Czech banks use the standardised approach and apply a zero risk weight. In this case, the CNB performs supervision under Pillar 2 and monitors and assesses whether sovereign risk is properly managed and covered. Depending on the result, it can impose measures in the form of an increase in the capital requirement for sovereign exposures.

As for the application of different risk weights to the same exposures, a general discussion of whether this is an appropriate situation is going on at international level. The differences stem not only from the high degree of expert judgement involved in calibrating internal models, which affect their input and output parameters. The approaches of national supervisory and regulatory authorities themselves also differ. The BCBS and the EBA, independently of each other, conducted empirical portfolio analyses in collaboration with a sample of the largest European banks applying the IRB approach.<sup>23</sup> Large differences in LGD were observed for sovereign exposures, while the differences in PD were small. However, this result is not surprising. PD depends on the frequency of counterparty default in historical data, which is very low for the sovereign sector. Another EBA study points to large differences in supervisory practices concerning risk weights.<sup>24</sup> It also notes that there are different rules for the permanent partial use of different approaches for the same types of exposures.

These discussions and analyses have produced several basic recommendations for supervisory authorities. For example, authorities are advised to more precisely and completely specify their parameter estimation rules and data requirements, to introduce minimum PD and LGD values for exposures with a low default frequency, to introduce benchmark estimates for selected parameters and to use complementary instruments for assessing capital adequacy (e.g. the leverage ratio).

CHART V.22

#### Public finance in the Czech Republic (as % of GDP)



Source: CZSO, CNB calculation

22 If the bank is part of an international group, the results are discussed in colleges set up by the competent supervisory authorities for individual banking groups.

23 BCBS (2013): *Analysis of Risk-Weighted Assets for Credit Risk in the Banking Book, Regulatory Consistency Assessment Programme*, July 2013, and EBA (2013): *Review on the Consistency of Risk Weighted Assets*, December 2013.

24 EBA (2013): *Report on the Comparability of Supervisory Rules and Practices*, December 2013.

The existing European regulatory framework offers supervisory authorities another option in terms of a preventive approach to sovereign risk, namely the systemic risk buffer. In general, this can be applied to a specific bank or group of banks in order to prevent long-term non-cyclical systemic or macroprudential risks which cannot be sufficiently suppressed by means of standard supervision. An important prerequisite is that the risk might disrupt the continuity of the financial system, which would have serious negative consequences for the financial system and the real economy of the country concerned. This instrument can be applied to all exposures or parts thereof (i.e. domestic or sectoral exposures). Although this capital buffer was not primarily designed as a tool for reducing systemic risk stemming from public finances, the supervisory authority should have the option of using it if it finds this sector to be a source of such risk.

Sovereign exposures generate interest rate risk positions, with general interest rate risk related to interest rate movements and specific interest rate risk related to movements of the pure government yield curve. Under Pillar 1, a capital requirement for interest rate risk is specified only for the trading portfolio. The interest rate risk of instruments in the investment portfolio is captured by a standardised interest rate shock and is subject to review and assessment under Pillar 2. For prudential reasons, banks are obliged to specify prudential valuation adjustments for instruments measured at fair value, which should take into account unearned credit spreads, close-out costs, the uncertainty of market prices, funding costs, and so on. In the case of instruments held to maturity, which are not measured at fair value, it would be appropriate to assess whether, in the event of the fair value of sovereign exposures being lower than the book value,<sup>25</sup> the bank would be able to cover this difference from its current profit. If the current profit would not be sufficient, the bank can be required to cover the difference with regulatory capital. The CNB could again apply Pillar 2 in that case.

Interest rate and sovereign risks are included in stress testing in both the Czech Republic and the EU. In the stress tests of banking sector solvency performed currently by the EBA two types of stress were applied to sovereign exposures. Government bonds were tested in the context of market risks, where, among other things, losses arising from a rise in government bond yields are estimated, and also in a sensitivity analysis, which assumes partial impairment of sovereign exposures from all EU countries, which banks mark to market. This sensitivity analysis should reflect the experience of the recent European debt crisis, in which some countries – and not only strongly indebted ones – recorded a loss of investor confidence. As for interest rate risk, the baseline scenario of the EBA test expects Czech government bonds to show low growth comparable to that expected for government bond yields in Belgium, France and Slovakia. In the sensitivity analysis, the differences between haircuts are relatively small for individual countries, even though their different fiscal and market situations were considered. Sovereign risk is also included in the stress tests performed by the CNB (see section 4.2).

<sup>25</sup> In a standard situation, the bank would record these losses in the notes to the financial statements.

## 5.6 THE REGULATORY ENVIRONMENT IN THE EU AND THE BANKING UNION

### 5.6.1 MACROPRUDENTIAL POLICY IN THE EU

The CNB's macroprudential policy framework is being created in close connection with the approaches to the identification and mitigation of systemic risks in the EU as a whole. This work is going on mainly within the European Systemic Risk Board (ESRB).

In 2013 the ESRB made significant progress in creating an EU-wide macroprudential policy framework. The main task of this institution's committees was to prepare a document comprehensively describing the key instruments for preventing and mitigating systemic risk in the banking sector. This work led to the compilation of the *Flagship Report on Macro-prudential Policy in the Banking Sector* and an accompanying more detailed *ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*. Both documents were published in March 2014. The CNB was actively involved above all in the work on capital buffers and instruments concerning property market risks. The main concepts discussed in detail in the two documents from the perspective of the practical conduct of macroprudential policy are arranged according to their mutual links in Table V.4, which is taken from the *Flagship Report*. The instruments in the table correspond to those the CNB will apply as from 2014 or is ready to apply in the future if necessary.

In addition to the two documents described above, the ESRB continued to issue recommendations to central banks, supervisors and other authorities. In 2013 these included recommendations on money market funds, on the balance sheet liquidity of credit institutions and also – particularly importantly from the CNB's perspective – on intermediate objectives and instruments for national macroprudential regulators in EU countries, which should be taken into account in the practical conduct of domestic macroprudential policy. The content of this recommendation is in line with the CNB's ongoing efforts to refine its macroprudential analyses and database, and the CNB follows the recommendation in its work.

TABLE V.4

Sources of systemic risk and macro-prudential instruments

Systemic Risk:	Excessive credit growth and leverage			Excessive maturity mismatch and market illiquidity		Exposure concentrations	Misaligned incentives	
Key instruments	Counter-cyclical capital buffer	Capital instruments: - leverage ratio - by sector (real estate, intra-financial) - systemic risk buffer	Loan-to-value / loan-to-income caps	Stable funding restrictions (e.g., NSFRR, LTD)	Liquidity charges	Large exposure restrictions (by counterparty, sector, geographic)	SIFI capital surcharges (G-SII and O-SII buffer)	Systemic risk buffer
Transmission channels	Resilience of banks; contribute to curbing excessive (sectoral) credit growth		Resilience of borrowers and banks, mitigate pro-cyclicality mortgage credit	Resilience of funding base to stressed outflows		Resilience to counterparty and concentration to sectors	Lower probability and impact of failure of SIFIs; increased resilience of banks	

Source: ESRB (Flagship Report on Macro-prudential Policy in the Banking Sector, Table 3)

Coordination of national macroprudential policies and exchange of views, experience and information between representatives of macroprudential regulators from various EU Member States is also an important part of the ESRB's activities. It is apparent from coordination of information and notifications that many other EU countries are planning to apply macroprudential instruments in the coming months or years. As in the case of the CNB, these will often involve higher capital requirements for banks depending on their systemic importance (see section 5.3). Authorities in Croatia, Estonia, the Netherlands and Sweden have already announced this. A number of countries will soon start applying the capital conservation buffer, and some will also actively apply the countercyclical capital buffer. A whole range of countries have already reacted or intend to react to risks linked with property exposures by setting or adjusting LTV or LTI limits (see section 5.4), setting floors for risk weights or the LGD factor for mortgage loans, or ordering mandatory repayments of principal in regular repayments of these loans. However, changes to tax legislation aimed at making debt financing of residential property purchases less attractive have already appeared as well.

#### **5.6.2 THE BANKING UNION AND CHANGES TO THE BANKING RULES IN THE EU**

During 2013 and the first few months of 2014, EU and euro area institutions focused, in line with the conclusions of the euro area summit of June 2012, on achieving progress in establishing the banking union (see Boxes 1 and 2 in FSR 2012/2013). Efforts were directed mainly towards the preparation of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM). Work on the Single Rule Book for the banking sector entered an advanced stage following the approval of the CRD IV/CRR regulatory package. The rules also include the Bank Recovery and Resolution Directive (BRRD), the final wording of which was approved in April 2014.<sup>26</sup> The regulatory package should act preventively, while the BRRD is aimed mainly at cases where prevention has failed. However, a significant proportion of the technical standards necessary for practical compliance with the above-mentioned components of the Single Rule Book are still under preparation. Negotiations on the Deposit Guarantee Schemes Directive (DGSD) also entered their final stage. It maintains the maximum coverage of deposits at EUR 100,000 but introduces a rule that contributions to the schemes will be derived not only from the amount of insured deposits of individual institutions, but also from their risk profiles.

As part of the preparations for the establishment of single supervision, the ECB in March 2014 launched a comprehensive assessment of the 128 banks that it will directly supervise. This assessment includes an asset quality review (AQR), a stress test and a supervisory assessment of risks in individual banks. The main pillar of the assessment is the AQR, which should cover around 60% of the assets of the banks under review. The

<sup>26</sup> See the CNB's Financial Market Supervision Report 2013, section *EU regulations in 2013*.

stress test, which will draw on some of the findings from the AQR, is being prepared in parallel. It is designed to examine the impacts of various macroeconomic scenarios on the stability of the banks concerned. At the end of April 2014 the EBA published the test methodology and the macroeconomic scenarios prepared by the ESRB. The loan portfolios of Czech banks are included in the review not directly, but only on an ad-hoc basis as a part of their parent groups' portfolios. The results will be announced at group level, not for individual group members.

After completing the test in late 2014, the ECB should assume direct supervision of the banks under review. In general, direct supervision will include large banks with total assets exceeding EUR 30 billion or 20% of national GDP and, as the case may be, other banks so that the three largest banks in each participating country are always included. Almost 85% of banking assets in the euro area will be subject to supervision by the ECB. Supervision will be performed by joint teams made up of staff of the ECB and national supervisory authorities. At the ECB, around 1,000 employees, headed by a Supervisory Board, will be involved in this work. Representatives of the national supervisory authorities of SSM-participating countries will also attend the meetings of this Board, whose decisions will be adopted by the ECB Executive Board. The remaining more than 6,000 euro area banks will continue to be supervised by their national supervisory authorities. The ECB will gain some powers over these banks, primarily in the area of granting and withdrawing licenses. The new arrangements for the supervision of large banks with cross-border activities are expected to deliver stricter supervision and ensure that the same rules are applied across the entire euro area. This should help reduce the high degree of fragmentation of the EU banking market which arose during the crisis (see Box 7). At the same time, however, supervision will become a more complicated process. The new functional links between the components of this process may take some time to configure, and the system is not without the risks that are inherent in highly complex structures with shared responsibilities. Macroprudential policy will remain primarily at the national level. However, the national supervisory authorities will still be obliged to notify the ECB of any planned measures in advance and the ECB will have the power to further tighten the macroprudential instruments.

The SSM will operate in all euro area countries. Non-euro area Member States can participate in the SSM by entering into "close cooperation". Non-participating countries will conclude a multilateral memorandum of understanding with the ECB and the supervisory authorities of the other non-participating countries. As the Czech Republic will not participate in the SSM, at least not to begin with, the CNB will retain its current powers over Czech financial market participants, and its position in cross-border supervisory colleges will not change significantly either.

Final discussions on the text of the regulation establishing the SRM are under way. It will be based on the BRRD. Among other things, the BRRD, which will be applicable to all EU members, harmonises and defines in detail the rules for resolving banks that get into distress. In addition, it defines the powers that the authorities will need in order to intervene in

distressed banks, including the power to use common equity write-downs and conversion of subordinated debt or hybrid capital as resolution tools at a “point of non-viability”. The original draft of the BRRD created sizeable risks for the Czech banking sector. A number of positive changes compared to the text proposed by the European Commission were achieved. However, some issues persist, especially the concept of group interests and the possibility of providing intra-group financial support under more favourable conditions than is usual in business relationships (see Box 1 in FSR 2012/2013).

The BRRD fundamentally changes the rules for interventions by national authorities in distressed banks and for the recapitalisation of such banks. As the authorities should start applying the BRRD at the start of 2015, its content is also important for the current comprehensive assessment of large European banks. On the basis of the assessment results or supervisory findings, some of the banks under review may have to prepare recapitalisation plans and adopt other stabilising measures. Although unlikely, it cannot be ruled out that resolution using private funds will not be possible. In such cases, if a Member State wants to use public funds for recapitalisation it will have to proceed in accordance with the BRRD and the rules applying to public support. If the conditions for preventive recapitalisation from public funds (solvency of the bank, maintaining a level playing field, etc.)<sup>27</sup> are not met, measures will have to be taken in the area of write-downs and conversion. If this does not lead to stabilisation and the supervisory authority concludes that the bank has failed or is likely to fail, resolution of the bank will follow if that is in the public interest, or in the opposite case the bank will go into liquidation or insolvency proceedings. In addition, the BRRD requires it to be possible by 2016 to apply the bail-in tool, i.e. the write-down or conversion of part of unsecured debt into capital of the bank with the exception of deposits protected by a deposit guarantee scheme, following the write-down and conversion of capital and subordinated debt. However, the procedure for writing down liabilities according to the rules for state assistance will not be entirely mechanical. The European Commission will be authorised to approve exceptions in specific cases, and a different procedure will be followed in the event of a systemic crisis. The above requirements make it necessary to redefine the particulars of bank solvency, the method for determining whether a bank is in jeopardy and a number of procedures for applying that method. At the national level it will be necessary to establish a resolution authority.

At the banking union level, the SRM will operate on the basis of the above regulation and an Inter-Governmental Agreement (IGA), which will cover issues related to the Single Resolution Fund (SRF). A Single Resolution Board (SRB), located in Brussels, will be established to govern the SRM. Its approximately 300 employees will prepare resolution plans, assess the options for the resolution of distressed banks, adopt resolution

<sup>27</sup> Preventive recapitalisation from public funds may be carried out without the write-down/conversion of capital instruments, but only under specific conditions laid down in the BRRD.

measures and monitor the implementation of resolution by national resolution authorities. The SRF should become fully funded from banks' contributions within eight years. According to the rules, the SRF's assets should cover at least 1% of the covered deposits of the relevant banks, the contributions being on top of those pooled in deposit insurance funds. The SRM should enable the relevant national authorities to react decisively before a bank gets into difficulties, or at least at an early stage of distress. The primary aim is to keep the bank operational without using taxpayers' money (see the discussion of the bail-in tool below). In the first phase, therefore, efforts will be made to stabilise the distressed bank using private funds. If this proves impossible, insolvency or resolution will take place provided that the relevant conditions are met.

Contrary to initial ideas, the SRM in the banking union will not be fully centralised, i.e. it will not be based on joint and shared funds from the participating countries, at least not initially. Resolution will be conducted at national level. Where the situation requires resolution from budgetary funds, those funds will also be obtained primarily at national level. It will still be possible to use national public funds to recapitalise banks on a prudential basis, i.e. not only in a situation where a bank runs into difficulties. It will also be possible to use public national funds in the event of a systemic crisis. It will be possible to use union funds only when resolution at national level is not possible, although the funding sources and relevant mechanisms for involving EU funds are not entirely known at the moment. The important thing is that the EU mechanism will not have funds available for the resolution of bad loans or other assets that were created before the SRM was established, and the future funds of the SRF will also be quite limited. Even after eight years, the shared funds should reach just EUR 55 billion. A similar amount might also be available from the ESM in the initial phase. These are fairly small sums compared to the current assets of banks in the euro area (around EUR 30,000 billion), loans to the private sector (EUR 10,500 billion) and NPLs (around EUR 800 billion).

One of the key objectives of the European Council in approving the plan to establish a banking union in 2012 was to use it to break the vicious circle between the balance sheets of banks and sovereigns. In this respect, much hope is pinned on the bail-in tool, which is an important part of the BRRD and the SRM agreement. It consists of a set of rules under which, as of the start of 2016 at the latest, banks' shareholders and unsecured creditors (holders of the bank's bonds and some uninsured deposits) will participate in the rescue of failing banks, thus making public bail-outs the last resort. The rules of the bail-in tool are defined quite strictly. The resolution fund will be able to cover the losses and recapitalise the bank only if shareholders' and creditors' funds amounting at least to 8% of the bank's total liabilities have first been used to cover the loss or to recapitalise, and the contribution from the fund may not exceed 5% of such liabilities (with some exceptions in the event of systemic crises). Although the bail-in tool clearly reduces the potential liabilities of governments vis-à-vis banking sectors, it also entails some costs and risks. First, the tool may not always be easy to apply from the practical and procedural perspectives and may complicate the rescue

of a bank in a crisis situation. It is also suitable primarily for the resolution of individual banks, whereas in a systemic crisis its use might generate large costs for the national economy, as evidenced by the bank resolution experience in Cyprus in 2013. The impacts of the implementation of this tool on the behaviour of investors and bank creditors are a major unknown. One intended consequence may be an increase in the cost of funds, especially for large banks, if it leads to the removal of the implicit “subsidy” associated with expectations of bail-out.<sup>28</sup> However, investors and creditors may respond to the threat of losses in the event of the application of the bail-in tool with lower demand for unsecured bank bonds, which might reduce the availability of loans for funding long-term investments. Since unsecured bank bonds are held largely by other financial institutions, the relevant risk might be transferred to other financial market sectors and the potential for contagion might increase. The resolution authorities will therefore set limits on banks’ claims on institutions to which bail-in might be applied.

Some skepticism is also in order as regards the bail-in tool’s ability to break the vicious circle between banks and their governments, as it only addresses the one-way interaction running from weak banks with bad assets to their expected bail-out from taxpayers’ money. However, the opposite way of this two-way interaction between banks and governments – running from the disorderly government financial position to the quality of banks’ balance sheets via their investments in government bonds – remains intact. In this situation, reasonable doubts arise as to the ability of governments to support banks in the event of distress, and there is increasing uncertainty about the willingness of national and supranational authorities to contribute to stabilisation in the event of a crisis and a growing probability that the banking sector as a source of funds for safeguarding the stability of public finances will turn into a source of instability. Although euro area banks hold only EUR 1,700 billion in government bonds out of the total of over EUR 7,000 billion issued, this exposure has risen significantly in most countries in recent years (see section 3.1), and the new capital and liquidity regulations create incentives for a further rise.<sup>29</sup>

To sum up, the banking union is not a cure-all for the risks inherent in banking business or for the euro area’s problems. The reduction in potential liabilities associated with the participation of governments in bank bail-outs and more efficient banking supervision will partly break the vicious circle between the government and banks, but other sections of this circle will remain intact. The illusion that it might be a cure-all may itself give rise to heavy costs. The idea that banks will be supervised at EU level but their problems will be solved at national level also entails some risks. Disentangling the two-way interaction between governments and

<sup>28</sup> See, for example, *Global Financial Stability Report*, April 2014, section *How Big is the Implicit Subsidy for Banks Considered Too Important to Fail?*

<sup>29</sup> This risk is also discussed in detail in the thematic article *Fiscal Sustainability and Financial Stability* in FSR 2012/2013.

banks in the euro area and the EU as a whole therefore remains a long-term goal rather than a short-term prospect.

#### **BOX 7: FRAGMENTATION, RING-FENCING OF LOCAL ACTIVITIES, AND FOREIGN BANK BRANCHES**

The need to eliminate the fragmentation of the euro area banking sector has become a major communication issue in the process of creating the banking union. Fragmentation is usually understood to mean different credit conditions, including different interest rates on loans or bonds issued in different Member States. Minor differences in credit conditions existed even before the financial crisis because of the different cyclical and structural characteristics of the euro area economies. However, these differences widened considerably during the systemic crisis in the euro area in 2011. SMEs in the periphery economies were hit particularly hard by worse access to loans, which, in addition, were much more costly than in the core countries of the euro area. The yields demanded by investors in government bonds also varied considerably across countries, although this can be explained by the varying degrees of public finance sustainability. One of the objectives of the banking union is to end this fragmentation and eliminate these differences in the single market.

However, increasing efforts to ring-fence certain activities on a national or local principle – a tendency that is not limited to Europe – are running counter to the clear advantages of having completely free and single banking services market. In particular, there is pressure to ensure sufficient capitalisation and balance-sheet liquidity for banks operating in the national market, be they domestic banks or subsidiaries and branches of foreign banks. The opinion that foreign banks should operate in national markets as branches only if they are not systemically important is also starting to win support. There are two reasons why local ring-fencing, and thus also some degree of fragmentation, may be desirable: first, a lower potential for cross-border contagion during crises, and second, a reduced ability of banks to significantly expand their externally funded activities in the optimistic phase of the credit cycle. In this respect, the desirable types of ring-fencing are those which prevent the provision of loans in the local economy in an amount that is fundamentally inconsistent with the level of locally available savings. The advocates of some degree of fragmentation admit that ring-fencing generates costs for cross-border institutions. However, they regard this as a relatively small price to pay for financial stability. By contrast, the proponents of free movement of capital and liquidity in cross-border groups argue that an absence of ring-fencing allows banks' head offices to stabilise foreign subsidiaries that get into distress during a crisis. Although this may be true in some cases, empirical studies show

that this effect is not very strong and that parent banks were not a significant source of strength to their subsidiaries in 2008–2009.<sup>30</sup>

During the financial crisis, some countries experienced risks stemming from a situation where the domestic supervisory authority did not have sufficient powers over foreign bank branches operating in the country via the European passport valid in the European Economic Area. The case of the British and Dutch branches of Icelandic bank Landsbanki illustrates that a Member State may not always be able to meet its liabilities arising from insurance of deposits collected by a domestic bank in its foreign branches. This gave rise to doubts about the practices of “unsupervised” branches in host countries. The Capital Requirements Directive (CRD) responded to this by introducing the concept of significant branches, which the host regulator can be more closely involved in supervising. If a branch is assessed as significant, the host regulator can demand a range of information and take some decisions by mutual agreement of the home and host supervisors.

In light of the experience of the crisis period and the changes in European and global regulation, the British authorities (the Bank of England, Prudential Regulation Authority) issued a consultation paper *Supervising International Banks: The PRA’s Approach to Branch Supervision* in February 2014. The aim of this paper is to provide information about the future approach to supervising foreign bank branches, with a specific focus on branches of banks from non-EEA countries. In the period ahead, the PRA will focus on the extent to which foreign branches represent a risk to UK financial stability and the national deposit guarantee scheme. The approach to these branches will depend mainly on whether the home regulator’s supervision is equivalent to that applied to banks licensed in the UK. The home regulator will be informed that certain branches have been identified as significant from the UK financial stability perspective and that the UK supervisor is ready to help to assess their level of risk. At the same time, the authorities envisage some branches having to be converted into subsidiaries within this process. As regards EEA branches, some of them may be assessed as systemically important under the new European legislation (CRR). In such case, the UK supervisor will require home regulators to provide more information and to consult it on important issues. Tighter rules for the operations of foreign banks will soon also take effect in the USA. In February

<sup>30</sup> See for example De Haas, R. and Van Lelyveld, I. (2014): *Multinational Banks and the Global Financial Crisis: Weathering the Perfect Storm?* European Bank for Reconstruction and Development Working Paper 135, December 2011.

this year, the Federal Reserve stated that the operations of foreign banks had become more complex, interconnected and concentrated in recent years. It has responded to this by introducing rules requiring foreign banks to have higher capital and liquidity. Large foreign banks will be required to establish a holding company subject to the same standards applicable to US bank holding companies.

Significant barriers to the business of foreign bank branches can be found in some smaller economies. In Canada, the regulator allows foreign bank branches to operate under significant restrictions, either as branches that can provide loans and accept deposits only from financial institutions (“lending foreign branches”), or as branches that can provide services to other sectors as well but cannot accept deposits smaller than CAD 150,000. This condition prevents branches from accepting deposits insured by the Canadian insurance fund and de facto prevents them from accepting retail deposits. Both types of branches also have to hold a certain amount of liquid assets as an equivalent to the capital buffer. The New Zealand regulator explicitly regulates the status of systemically important branches. It requires institutions exceeding a certain degree of importance to convert from a branch into a local subsidiary subject to domestic regulation. The regulatory framework in New Zealand is relevant to the debate about the Czech banking sector because there, like in the Czech Republic, most banks are owned by foreign institutions and the central bank of New Zealand, like the CNB, is mostly in the position of host regulator.

The situation where a significant subsidiary bank is converted into a branch may pose a risk to financial stability and to the stability of the economy as a whole. This risk is very pronounced in the EU, where the ability of host regulators to influence the activities of branches of banks from other Member States is more limited since the approval of CRD IV. These risks may materialise during booms and busts. During booms, branches may become a source of excessive growth in loans with inappropriate credit conditions. This, in turn, will “encourage” other banks operating in the domestic market to take a similar approach. During busts, branches may significantly rein in their activities in order to help improve the capital position of the overall cross-border group or the parent bank itself. If the group as a whole runs into problems,

the authorities in the host country will not be able to stabilise the branch through recapitalisation even though it is a systemically important institution in the market.<sup>31</sup>

The risk of subsidiaries being converted into branches makes it necessary to regularly assess whether the conditions for the operations of banks in the Czech Republic are worsening relative to the other Member States to such an extent that parent banks have an incentive to convert. At the same time, it is vital to set the conditions applying to such conversions so as to reduce the long-term prudential risks of such a step as much as possible. To this end, the CNB has in recent months proposed an amendment to the Act on Banks aimed at protecting insured depositors and retail consumers/debtors. These clients have limited options for protecting their interests themselves through direct negotiations with banks. At the same time, the proposal strengthens depositors' and debtors' freedom to choose the bank or foreign bank that will be their debtor or creditor or provide other services to them. First and foremost, the proposal regulates the disclosure duties of a bank vis-à-vis its clients regarding planned changes to the bank as a provider of financial services. In the period between the announcement and implementation of a planned change, depositors should have the right to cancel the liabilities on the basis of which they are depositors free of charge and with immediate effect. Similarly, debtors of the bank should have the right to cancel their claims on it. Mortgage bond holders should have the right to request early repayment of the face value of the bond plus a pro rata yield. The proposal also includes the introduction of an extraordinary contribution to the Deposit Insurance Fund to be paid by banks exiting the Czech insurance system. This proposal is aimed at maintaining depositor protection and overall financial stability in the Czech Republic following the termination of a bank's participation in the deposit insurance scheme.

The existence of large and complex foreign branches is not appealing to home country authorities either, as the home country ultimately assumes broad responsibility for developments in markets where it has limited powers in a whole range of areas. If a systemically important subsidiary in the Czech Republic does convert into a branch, its activities should be closely monitored and – if any risks are identified – the above possibilities offered by the concept of significant branches should be actively used.

<sup>31</sup> The significance of this factor is mentioned in Fiechter, J. et al. (2011): *Subsidiaries or Branches: Does One Size Fit All?* IMF Staff Discussion Paper, March 7, 2011. For the EU see also Fáykiss, P. et al. (2013): *Transforming Subsidiaries into Branches – Should We Be Worrying about It?* MNB Occasional Papers 106, September 2013.