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Basel III and regional financial integration in emerging Europe

An overview of key issues

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Summary

We review the likely impact of Basel III regulation within the European Union's new member states, based on system-wide financial stability indicators and responses to consultation processes from national central banks and banking groups. Fresh regulations on liquidity ratios are likely to have the most severe impact on subsidiary funding relationships with a typically large reliance on wholesale markets. Provisions on capital quality and coverage are unlikely to represent significant impediments to existing business models but could have an impact on the region should excess capital coverage be reduced to the benefit of parents. Given the benefits from financial integration in terms of growth and financial stability, application of Basel III within emerging Europe should be based on sound coordination of prudential regulation and implementation, including in measures directed at systemic risks.

Keywords: financial regulation, new EU member states, financial integration.

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Will the international regulatory reform effort that is currently under way put at risk the benefits from financial integration in emerging Europe? Will it be sufficient to address the banking sector vulnerabilities still persisting within that region or are there specific characteristics in banking sectors that will need to be addressed through local or European regulation?

In September 2010 the Basel Committee on Bank Supervision (BCBS) adopted the final proposals for strengthening bank capital and liquidity standards – the so-called Basel III package. The translation of Basel III within Europe is imminent in the form of a fourth version of EU-wide Capital Requirements Directive (CRD), of which a first draft was due to be released in the summer of 2011. The European Commission has made it clear that the key provisions will be adopted faithfully, and the main contours of the regulation have become apparent in the Commission's consultation process.

By contrast, some parts of the financial services industry operating within emerging Europe see the changes adopted within the Basel framework as a threat to their banking model. According to this view, Basel III poses significant threats to the parent-subsidiary funding relationships that have served the region well. Capital requirements penalise what have on the whole been relatively defensive exposures, in particular to small and medium-sized enterprises (SMEs). Early introduction of Basel III within emerging Europe could derail a nascent recovery in credit and, more broadly, in growth.

This paper addresses the two opening questions with reference to the 10 new EU member states (EU-10 or NMS) in central and south-eastern Europe. We focus on the package of measures coordinated by the international community to mandate stricter standards on capital and liquidity and to stem excessive risk-taking on the side of banks, which form the key objectives mandated by G-20 leaders in the immediate aftermath of the financial crisis. While the financial stability agenda goes well beyond standards on capital and liquidity – comprising, for instance, work on compensation standards or bank business models – this is the main plank of reform on which a key milestone was reached in 2010.

Since then, there has been extensive analysis of the potential impact of Basel III in both industry and academia. However, to our knowledge there has been scant analysis of the impact in central Europe, which is clearly needed for two reasons. First, the specific nature of emerging financial markets – marked by the short duration of financial contracts, shallow local capital markets and information problems that feed wide swings in the credit cycle – was not central to the Basel Committee's deliberations. Second, central and eastern Europe (CEE) stands out for its deep integration within the European Union's single market for capital and financial services, which has been reflected in increasing integration of funding relationships within cross-national bank groups – so-called internal capital markets (ICMs). For these reasons the current banking model practised in the region may be uniquely vulnerable to stricter micro- and macro-prudential requirements under Basel III, many of which may be applied on a national and consolidated level.

We review the relevant literature on financial integration in Europe in Section 1 and give an overview of how national regulators in the NMS have responded to the vulnerabilities exposed by the crisis in Section 2. Key elements of the Basel package are outlined in Section 3. We are concerned with the impact of such regulations once fully implemented – for some elements only by 2019 – rather than with the path for growth and financial markets in the interim transition. Section 4 presents the assessment of institution-specific supervisory standards with regards to composition and quality of capital, overall capital adequacy ratios, and liquidity ratios. Macro-prudential measures designed to address volatile swings in credit volumes – a major concern in emerging Europe – are assessed in Section 5. Lastly, Section 6 assesses the overall impact of the package that can be discerned so far and identifies where it falls short of new standards needed for the region. The final and concluding section offers some thoughts on what the adoption of the Basel III framework will entail for the new EU supervisory institutions that were established in early 2011.

1. Regional financial integration: growth dividends, vulnerabilities and regulatory challenges

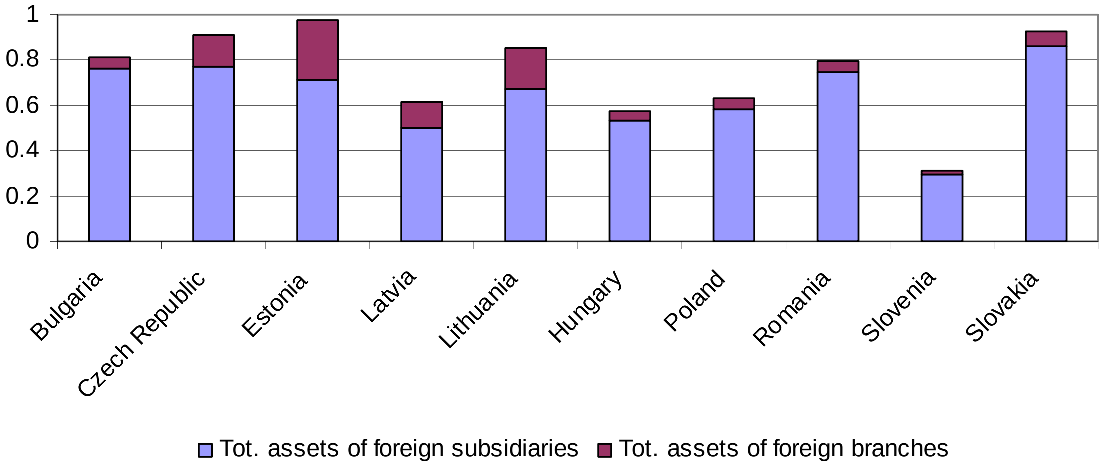
The financial crisis of 2008-09 originated in the financial markets of the advanced countries, and Basel III has been designed to respond to the fragilities exposed in such markets. Not only are emerging markets not the central concern in the redesign of the Basel framework, the European Union's new member states are also exposed to new international regulations due to two salient and interrelated characteristics of their financial systems: first, the paucity of local capital market funding relative to bank credit, and the short maturities of such market-based funding where it exists, and, second, the dominance of foreign-owned bank subsidiaries in providing credit to the private sector.

The openness of the NMS to foreign providers of financial services in terms of both the predominance of foreign bank lending in capital account inflows and the fact that the predominant share of banking assets is controlled by majority foreign-owned bank subsidiaries, is a feature of economic and structural policies broadly common across the region. The absence of capital account controls and the non-discriminatory treatment of foreign investors in bank privatisation are key tenets of EU single market regulation, though financial openness precedes EU membership. Importantly, most bank services are provided locally, not through cross-border lending, and by foreign subsidiaries established under host country regulation; while branches, subject to home country regulation, account for only a minor part (see Chart 1).

The prominent role of cross-border groups in the economies of the NMS is reflected in the dramatic increase in the claims of local operations of foreign banks in relation to local residents during the last few years. Chart 2 shows the trend in claims by foreign affiliates in local currency expressed in US dollar values. Although, following the crisis, those claims experienced a sharp drop in several countries; levels have overall increased remarkably over the past decade.

Chart 1

Bank ownership shares

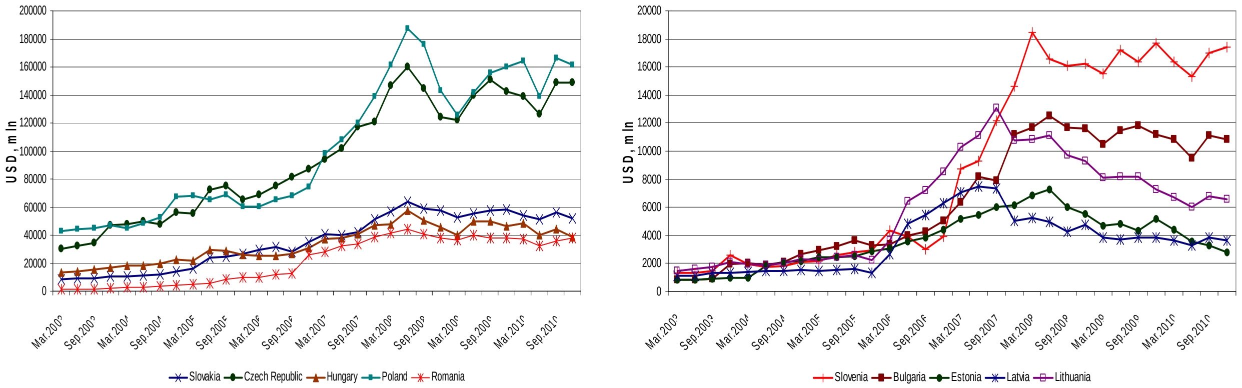


Source: EU Banking Sector Stability 2010.

Note: Foreign assets under the ECB include claims towards residents and non-residents in the host country held by foreign subsidiaries and branches based in a given EU host country (but not those held through other foreign subsidiaries or branches based abroad).

Chart 2

Local claims in local currency by foreign affiliates



Sources: BIS, consolidated banking statistics, Table 9AL.

As foreign-owned bank subsidiaries were repeatedly blamed for overly aggressive lending ahead of the crisis and, subsequently, for exacerbating stagnant or contracting credit volumes, the EBRD (2009) revisited the costs and benefits of financial integration to the transition region more broadly. The key finding is that substantial long-term growth effects can be attributed to financial integration. Capital inflows and foreign ownership of the banking sector led to higher average growth over extended periods, and throughout the period 1997-2008, considered by the study. From the results of the study, the NMS defied the "Lucas paradox" –

the confounding observation that low income countries generally do not experience capital inflows from high income countries, and, moreover, that where inflows do occur they are primarily directed to slower-growing countries.[1] While the exact explanation for the NMS's contrasting experience remains unclear in the literature, the institutional quality enshrined in EU regulations and threshold effects – the fact that financial openness is substantial – are likely causes.

Openness to financial services provision through foreign-owned subsidiaries can have beneficial effects on domestic financial stability. If shocks originate within the host country, foreign-owned bank subsidiaries generally stabilise credit supply. By contrast, in the most recent crisis problems originated from the international inter-bank funding markets and seem to have led to a drying-up of credit supply of banks exposed to such markets, both foreign and domestic owned. The exception appear to have been banks that participated in the European Bank Coordination Initiative (also known as the "Vienna Initiative"), which generally maintained exposures within certain countries – as per their commitments. There is no evidence that this came at the cost to exposures in countries *not* covered by the Initiative.[2]

It is clear that foreign bank subsidiaries reacted to several financial vulnerabilities that now plague financial systems in the region, and which have led to a more assertive prudential oversight at the national level (trends that we survey in Section 3).

- First, several system-wide indicators point to a deterioration in lending standards in the boom years ahead of the crisis. High private sector indebtedness in turn can be linked directly to the output decline in the crisis, which can now be identified as a major obstacle to recovery. Foreign bank subsidiaries participated in this deterioration in an environment of ample liquidity by aggressively competing for market share. Nevertheless, periods of excessive credit expansion – a rough guide for the likelihood of subsequent problems in asset quality – do not seem to match periods of financial opening, but seem more closely related to global liquidity.

- Second, foreign funding exacerbated lending in foreign currency to unhedged borrowers (though this is true for both domestic and foreign-owned banks). This remains a key liability for all NMS with nominally flexible rates, and a latent risk for Bulgaria, Latvia and Lithuania (which retain currency pegs or currency boards). Large numbers of households and corporates borrowed in foreign exchange. In Poland and Hungary the Swiss franc remains the predominant currency, crucially used for long-term household borrowing such as mortgages. This exposed several economies to the threat of wide-spread private sector defaults sparked by devaluation. It also complicated the crisis response by limiting the use of the exchange rate as a shock absorber and reducing the effectiveness of any monetary policy response. This necessitated more forceful international support packages, including domestic and international swap facilities, than would otherwise have seemed necessary.

- Lastly, a related vulnerability emerged in pervasive liquidity risks. At the macroeconomic level this was due to a structural savings shortfall evident in current account deficits, excessive loan-to-deposit ratios, and an ongoing funding need from both parent banks and international bank funding markets. Moreover, deposits denominated in domestic

[1] Abiad *et al* (2009).
[2] De Haas *et al* (2011); Barba Navaretti *et al* (2010) find a more stable conduct up to an earlier point.

currency were widely exchanged into foreign currency funds for on-lending to domestic households through international swap markets. Once these markets dried up, long-term assets in foreign currencies had to be re-financed in increasingly illiquid swap markets which offered progressively shorter maturities.

Many of the growth benefits from the presence of foreign bank affiliates stem from superior skills and risk management practices, and are not necessarily due to their drawing on external capital or on capital or funding from the parent bank. Indeed several bank groups operating in emerging markets employ a decentralised organisational model that grants foreign bank subsidiaries considerable managerial and financial autonomy.[3] However, across the NMS region, European bank groups have increasingly integrated treasury operations within the bank group, in accordance with the model of internal capital markets (ICMs).[4]

Clearly, ICMs may transmit shocks from the parent's home country to foreign affiliates. Yet, it is noteworthy that this effect has been limited in the early phases of the financial crisis (roughly mid 2007 – late 2008). During this period European parent banks suffered acute funding strains, though largely refrained from withdrawing liquidity from their foreign networks. Barba Navaretti *et al* (2010) show that loan-to-deposit ratios of foreign subsidiaries, in contrast to domestically owned banks, did not decline in this early phase well before international bank support packages and voluntary restraints on bank exposures within Europe became effective. The crisis highlighted that ICMs are superior in withstanding shocks to either liquidity or capital within the host country as parent bank credit default swap (CDS) spreads remained below those of several host countries and ECB facilities provided euro financing even during market disruptions. The parent can function as a ready pool of funds that dampens the impact on host country loan volumes extended by the affiliate.

Empirical studies broadly support the view that cross-border banks have been a source of financial stability during the crisis, based on the functioning of ICMs. In fact, centralised liquidity management helped many banks to survive the extreme volatility in their host countries. During the crisis (roughly between end-2007 and end-2009) total local claims of foreign affiliates in the NMS remained stable, and, in some instances, even increased. In the Czech Republic, Hungary and Poland and, for instance, claims by local affiliates in local currency (unaffected by exchange rate fluctuations) generally increased in the three years to end-2009, and were relatively higher than in the eurozone.

The complication for regulators arises from largely independent and poorly coordinated prudential oversight of each subsidiary. Unlike capital movements within Europe's single market for financial services, intra-bank treasury operations are impeded by numerous supervisory restrictions and other obstacles.[5] Already the fragmentation between regulation and supervision generates barriers to the intra-group transfer of funds as well as of information such as on retail borrowers' credit quality. Revisions to the European Union's CRD will likely redistribute these responsibilities in favour of home country authorities. In the recent crisis, bank groups experienced delays in the transfer of funds. Moreover, requirements for regulatory approval of asset transfers often complicated liquidity management. Barriers remain regarding the pooling of cash and collateral in a single location.

[3] See M. Cremers *et al* (2010). De-centralisation is, for instance, relevant for affiliates of Spanish banks operating in Latin America.
[4] De Haas and Naaborg (2005).
[5] Unicredit Group (2009) shows that most liquidity regimes are nationally based and supervision of liquidity risk is not integrated across jurisdictions.

The transfer of customer risk positions across entities within the same group is limited by national laws on data protection and banking secrecy. Countering this proliferation of country-specific prudential requirements and implementation procedures was a key rationale for the establishment of a unified European supervisory body.

2. Regulatory reforms within the new member states

How have these vulnerabilities been addressed by national authorities to date? The EBRD (2009) judges the macroeconomic benefits derived from financial integration to outweigh associated financial vulnerabilities. Indeed, national regulatory initiatives implemented since the onset of the crisis do not point towards a growing bias against foreign-owned subsidiaries, or even greater restrictions on international financial transactions.

Unlike for branches of foreign banks, national supervisors exercise full prudential oversight over foreign subsidiaries located within their banking systems. Key prudential requirements are mandated by European regulation, most notably the Capital Requirements Directive (CRD), which in turn is based on the earlier Basel Accord. On this basis, national supervisors have considerable discretion in interpreting balance sheet items and may impose additional requirements.

In practice, prudential oversight over foreign-owned subsidiaries is shared with, and in some instances transferred to, the relevant supervisor in the home countries with oversight at the consolidated level. Important home countries, such as Austria and Sweden, have been more proactive in guiding subsidiaries of banks from their countries, and in entering into closer coordination with the respective foreign supervisors. Arrangements for supervisory coordination are effective to varying degrees but have been strengthened recently, for instance through an agreement between five Nordic countries and the three Baltic countries in August 2010, seeking to cover fiscal burden-sharing following bank restructuring. Further convergence of supervision is expected from the introduction of supervisory colleges of cross-border banking groups and the establishment of the European Banking Authority (EBA) in early 2011.

Ahead of the crisis, there was a belated attempt by national supervisors to rein in excessive credit growth and to stem foreign currency-based lending. The effectiveness of measures such as reserve requirements or absolute limits on credit expansion was typically limited given the open capital account and substitution of foreign lending or other financial instruments. Following the crisis, many such restraints have been loosened. In the immediate instance, anti-crisis measures included the expansion of deposit insurance schemes as well as support to bank liquidity through foreign currency swap lines with the national central bank (which in turn were often backed up by swap lines with other European central banks). Outright bank failures were rare (Latvia's Parex being the most notable), as were state-backed bank recapitalisations. Guarantees on inter-bank borrowing remained in place in a number of countries (for example, in Slovenia), while Hungary and Poland operated swap markets with banks in late 2008 and early 2009. Support from the authorities of home countries for the subsidiaries in the NMS was typically extended on a non-discriminatory basis. As the crisis recedes, three main types of regulatory tightening have emerged at the national level:

- stricter standards on lending practices, including requirements on borrower creditworthiness (for example, limits on loan-to-value (LTV) ratios or payments-to-income ratios)
- restraints on lending in foreign currencies, for example, through "moral suasion" and additional "pillar II" capital requirements to dissuade banks from lending in Japanese yen. In the case of Hungary, the regulator first imposed stricter lending standards differentiated by currency and, in 2010, the government effectively banned lending in foreign currency in certain products

- stricter disclosure requirements imposed on banks vis-à-vis potential borrowers with regard to risks and stress scenarios (for example, Regulation T in Poland), coupled with institutional improvements to access to information (for example, a credit bureau disclosing full records).

More recently a number of EU countries have proposed or implemented bank levies or taxes to back up to financial rescues, and the EU Commission in May 2010 advocated a system of European bail-out funds. Hungary has imposed a substantial bank levy on bank assets from 2010, and, among others, Poland, Romania and Slovenia are considering a similar measure. At least in the case of Hungary, this was motivated by fiscal concerns, and none of the three countries contemplates the establishment of a bank rescue fund, as Sweden did. It is likely that these levies will at least partly be absorbed by bank earnings and hence undermine efforts to rebuild capital.

Overall, most measures designed at the national level to strengthen bank resilience in the NMS did not address the core aspects of prudential regulation and supervision – standards on capital adequacy – let alone newer proposals such as countercyclical buffers or capital surcharges on systemically important banks. Such requirements define bank profitability and within the integrated European financial market clearly call for regulation at the European level, as ultimately defined through the international accord within the Basel Committee.

3. International financial reform: the Basel package and its implementation in Europe

The international effort to redress the fragilities exposed by the financial crisis was initiated with the G-20 declaration of November 2008, which contained no less than 39 action points on this topic, of which 25 were addressed at international regulatory bodies such as the BCBS.[6] Financial reform envisaged under the G-20 agenda encompasses a wide field, including for instance compensation structures designed to contain moral hazard, regulation of certain capital market instruments or consumer protection, on most of which international and regional regulatory initiatives are still under way. However, the central plank of the G-20 agenda – the revision of prudential requirements on capital and liquidity – was concluded rapidly with the agreement of the Basel Committee in September 2010.[7]

The Committee has agreed on changes to capital charges on trading books, securitisation, counterparty credit risk and exposures to other financial institutions. What remains under discussion, and outside our assessment here, are capital surcharges and contingent capital instruments to address risk emanating from individual systemically important institutions. Similarly, potentially wide-ranging proposals on an integrated recovery and resolution plan and the introduction of cross-border resolution regimes are currently under discussion at both the FSB and within the European Union.[8] Pointing to a clear regulatory shift, this then leaves the elements set out in Table 1, which we will review in detail in the following two sections.

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[6] Rottier and Veron (2010).
[7] See the key parameters in Bank of International Settlements (2010).
[8] In early 2011 the EU Commission launched a consultation on crisis management of European cross-border groups.

Table 1
Summary of main initiatives under Basel III

	New requirements	Phase-in arrangements
Capital	▪ Minimum common equity ratio: 4.5%	▪ 2013-15
	▪ Capital conservation buffer: 2.5% – met with common equity. If below that threshold, constraints on earning distributions are imposed	▪ 2016-19
	▪ Tier 1 capital ratio: 6%	▪ 2013-15
	▪ Higher capital requirements for trading, derivatives, securitisation	▪ By 2012
	▪ Test of a minimum Tier 1 leverage ratio of 3%	▪ Based on appropriate review and calibration, Pillar 1 treatment will start in January 2018
	Systemically important banks should have a loss-absorbing capacity beyond the standards above. Such guidelines are being developed which could include capital surcharges, contingent capital and "bail in" debt.	
Quality of capital	• Hybrid capital ruled out • More stringent requirements for Tier 2 • Tier 3 ruled out	• Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital phased out over 10 years, beginning 2013
	• Minority stakes exceeding a subsidiary's regulatory requirement will be deducted from the consolidated common equity	• Phase-in of deductions from core equity from 2014-18
	• Deferred tax assets have to be deducted: If originating from losses, in full. If originating from timing differences only for the amount exceeding 10% of common equity	

Liquidity	• Liquidity coverage ratios • Net stable funding ratios	• Observation period begins in 2011 – Minimum Standards introduced in 2015 • Observation period begins in 2012 – Minimum Standards introduced in 2018
Macro-prudential requirements	• 0 to 2.5% countercyclical buffer	• Upon national circumstances and discretion

It is important to bear in mind that the Basel Committee agreed to gradually implement the package of reform after its finalisation in order to "ensure that the banking sector can meet the higher capital standards through reasonable earning retention and capital raising, while still supporting the economy".[9] These transition periods will be lengthy – in the case of the net stable funding ratio, for instance, full implementation is not envisaged until 2019, while markets may assess banks against the new ratios much earlier.

As regards the implementation within the NMS, the EU Commission is committed to translate the standards adopted by the Basel Committee into European regulation through a further revision of capital requirements legislation. This legislation is commonly known as CRD IV, which is misleading as there will likely not be a directive but a regulation that is immediately and directly binding on national supervisors. A first draft of the CRD IV is expected to go to the inter-institutional consultation process in the summer of 2011, largely comprising identical parameters and transition periods to the previous versions, as indicated by the Commission.[10]

Implementation within the European Union will be underpinned by a substantially strengthened supervisory framework that was adopted by EU institutions in September 2010 and came into force in January 2011. Specifically, a European Banking Authority (EBA) will work towards improved information-sharing between national supervisors and convergence of supervisory practices based on a 'single rule book'.[11] In addition, a European Systemic Risk Board (ESRB) will oversee the implementation of macro-prudential requirements and identify systemic risks, including those arising from certain systemically important institutions. This will be a crucial function given the wide margin for judgement of excessive credit developments that may warrant macro-prudential measures. Nevertheless, the CRD framework still holds considerable scope for national discretion in interpreting regulatory requirements and implementation procedures.

[9] Bank of International Settlements (2010).
[10] See the Commission's consultation document here: http://ec.europa.eu/internal_market/consultations/2010/crd4_en.htm.
[11] The joint press release by the three existing supervisory agencies refers, among others, to "upgrading the quality and consistency of supervision, reinforcing the oversight of cross-border groups; strengthening risk assessments and stress testing; establishing a single European rule book applicable to all financial institutions in the Single Market, which will lead to a high degree of convergence in the field of supervision; as well as an efficient dialogue with all market participants, investors and consumers of financial services; and a commitment to strengthen cooperation among the three ESAs."

4. Prudential requirements under Basel III: key objectives and their likely impact

a. Higher "quality" in bank capital

A key concern of the Basel Committee was to raise the quality of bank capital that will henceforth be a measure of regulatory capital adequacy. Under the new accord "highest quality" capital – basically common equity and retained earnings – is to assume the primary role in defining capital ratios. This represents an important change from previously used broader capital concepts, which among Tier 2 capital included various components that were not readily available for loss absorption, in particular hybrid capital. Even common equity will ultimately be subject to a number of exclusions and limitations, importantly of minority stakes in subsidiaries which will count towards consolidated capital at group level only to a limited extent. This exclusion was motivated by the concern that minority participations in subsidiaries, whether at home or abroad, could not be readily transferred to parents for loss absorption: bank capital was deemed as not being freely fungible across the group.[12]

Non-traditional types of capital which will henceforth be ruled out from Tier 1 equity (such as hybrid capital or deferred taxes) are relatively insignificant in the central and eastern Europe (CEE) region. However, the exclusion of minority stakes could be a significant concern. Before EU accession, a number of host countries sought to discourage full ownership of domestic banks on privatisation, or acquirers themselves did not seek full ownership.

Table 2 lists the values of minority equity stakes of key European bank groups operating in the emerging Europe region, and computes the sum total of these stakes relative to total group capital. This is an upper bound of the potential shortfall in common equity resulting in the extreme case of *all* minority stakes being excluded from consolidated group capital (and Basel rules permit *some* inclusion). This ratio is clearly significant in bank groups with a significant share of foreign subsidiaries in total operation, which were acquired opportunistically or without seeking full ownership.

[12] Following concerted opposition from the industry, the final compromise allows the inclusion of minority stakes in group capital up to the required regulatory capital, ruling out excess capital in the subsidiary in proportion to the minority stake.

Table 2

Partial ownership stakes in consolidated bank subsidiaries: significance in group capital

Bank group		RZB	Unicredit	Erste
Consolidated subsidiaries that are less than fully owned (share of parent stake)	EU	Hungary, Raiffeisen Bank Zrt (70%)	Poland, Bank Pekao (59%)	Czech, Ceska Sporitelna a.s.(98%)
		Slovakia, Tatra Banka (66%)	Romania, Tiriac Bank (51%)	Romania, Romanian Commercial Bank SA (69%)
		Slovenia, Raiffeisen Banka dd (86%)	Bulgaria, Bulbank (92%)	
		Czech, Raiffeisenbank akciova spolecnost (51%)	Slovak Rep, Unicredit Bank (99%)	
	Non-EU	Croatia, Raiffeisenbank Austria d.d., Zagreb (73%)	Croatia, Zagrebacka (84%)	Croatia, Erste & Steiermärkische Bank dd (65%)
		Belarus, Priorbank (88%)	Bosnia, Unicredit BiH (93%)	Serbia, Erste Bank a.d. Novi Sad (81%)
		Bosnia and Herzegovina, Raiffeisenbank d.d. BiH (97%)	Ukraine, Ukrostsbank (96%)	
			Kazakhstan, ATF (96%)	
Aggregate equity of minority stakeholders		910	2,455	823
Share in group equity %		8.5	3.9	6.2

Source: Raiffeisen Zentralbank Group (2010) on bank participations and Bankscope. Figures in brackets denote the group stake in a subsidiary; subsidiaries with less than full ownership by the parent are listed, as all subsidiary participations from outside the group are subject to certain restrictions in calculating group capital.

Overall upgrading the quality of regulatory capital in the NMS will likely have a relatively minor effect – a finding which was in contrast to the quantitative impact study on additional capital requirements for EU banks as a whole, which found substantial reduction in Tier 1 common equity for both small banks (a drop of 33 per cent) and large banks (42 per cent).[13]

While the new capital definitions will not expose a dramatic shortfall in capital coverage, they are likely to alter the nature of bank acquisitions in the region. In future, the regulatory capital definition by the Basel Committee will encourage strategic investors to seek *full* ownership, or acquire the remaining minority stakes in their existing subsidiaries in full. This will constrain liquidity in local equity markets, where some of these minorities may be freely traded, and may come at odds with host country attempts to encourage such a free float – or even restrict full foreign ownership in local banks. Restrictions on foreign acquisitions of privately owned bank stakes are of course at odds with EU single market regulations.[14] Nevertheless, these restrictions may yet limit full bank privatisations which are still outstanding in the NMS, in particular in Poland and Slovenia.

At the host country level, minority stakes will still be included in the calculation of Tier 1 capital ratios by national supervisors. A risk remains that Basel capital definitions and their reflection in CRD IV may lead to a reluctance of the strategic (majority) owners to recapitalise or expand assets within the subsidiary concerned: at the consolidated level, all

[13] Committee of European Banking Supervisors (2010).
[14] There is clear European Court of Justice (ECJ) case law on discrimination against acquirers from other EU member states. In the case of Poland, the EU Commission opened infringement proceedings in 2006 under both the capital movements and merger regulations of the EC Treaty for blocking the merger of Unicredit with German HVB. Ultimately, a compromise with the Polish authorities was reached, though the Unicredit stake in Bank Pekao remains limited to 59 per cent.

risk-weighted assets in that subsidiary will need to be supported by less than the total capital of that subsidiary – in effect, the parent will perceive the marginal capital cost of generating assets in that location to be higher. This remains a concern in principle, though given the flexibility in utilising certain limits for capital recognition it is as yet impossible to judge how parent groups will ultimately govern subsidiaries with significant minority participation.

b. Raising capital adequacy

The Basel Committee's proposals for higher capital ratios based on the narrower concepts of capital have largely been welcomed by most of the G-20 countries. The largest impact is expected for municipal banks in a number of western European countries where good parts of capital will be disqualified and capital accumulation out of earnings is unlikely to be strong enough. Banks will be required to have common equity equal to at least 7 per cent of risk-weighted assets, a ratio that includes a 2.5 per cent "capital conservation buffer" within which restrictions on dividend payouts will be imposed. The latter is to be introduced gradually by 2019. Standards for common equity have been very low to date, at only about 2 per cent relative to risk-weighted assets. Once this conservation buffer is included – and most banks will be reluctant to expose themselves to the extra regulatory oversight implied by falling below this buffer – banks will require 7 per cent common equity, 8.5 per cent Tier 1 capital and 10.5 per cent total capital. Under the existing Basel II rules there were only requirements on Tier 1 and total capital, at 4 and 8 per cent, respectively. An additional capital requirement in the form of a 3 per cent leverage ratio (this is unadjusted for risk) will take effect by 2018.

There remains considerable uncertainty around two additional layers of capital requirements, which are likely to be relevant for financial institutions operating in the transition region: first, capital requirements for systemically important institutions (likely to cover most bank groups operating in emerging Europe), on which the Financial Stability Board is yet to make proposals to the G-20, and, second, countercyclical buffers which will be applied to all banks within jurisdictions experiencing excessive credit growth (see next section). In any case, some western European home countries are considering capital requirements that could come into effect earlier and entail a higher coverage than envisaged under Basel III.

A review of capital ratios in the 10 countries in Chart 3 shows that, at present, banking systems in the NMS meet the new minima on an aggregated level, in some instances with a comfortable margin. The capital ratios of the biggest foreign-owned subsidiaries in each country generally exceed the country average, whereas major domestic banks show ratios closer to the regulatory minima. Clearly, these thresholds will come into effect with considerable delay, and this is before any additional requirements such as countercyclical buffers or surcharges for systemically important institutions will be imposed.[15]

The general picture of ample capital coverage is consistent with evidence that banks in countries with a recent history of economic or banking sector instability have relatively high capital ratios to match the higher risk in business activities. Equally, foreign parents have recapitalised their subsidiaries regularly, partly with support from their home country authorities, as was the case with the Austrian capital support package of 2008. In addition, bank capital requirements under Basel II (8 per cent on total capital) have in several instances

[15] The aggregate ratio of 10.5 per cent that includes the conservation buffer will only be effective from 2019, with the problematic components of capital to be phased out over 10 years from 2013.

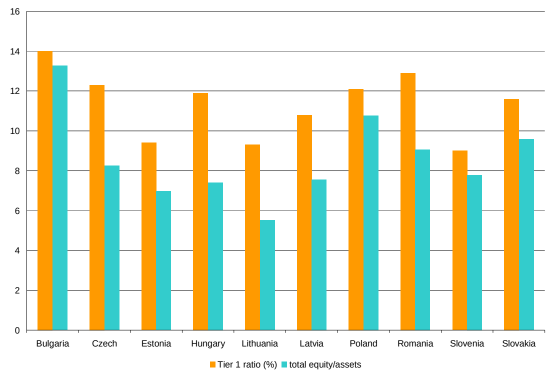
been exceeded either given formal targets (such as in Bulgaria with a 12 per cent ratio) or informally (in the case of the Czech Republic and Romania).[16]

Changes in the risk weights for individual asset classes may also impact credit provision. Under the proposed Basel rules – for which translation through CRD IV is as yet unclear – coverage of trading book and counterparty risk will be more expensive. Initial estimates show that the CEE banking sector will not face major challenges in satisfying those requirements, as local banks are mostly commercial banks with relatively traditional businesses. However, there could be a negative impact due to the imposition of higher capital charges on trade finance instruments, such as letters of credit or contingent lines of credit, and for small and medium-sized enterprises.

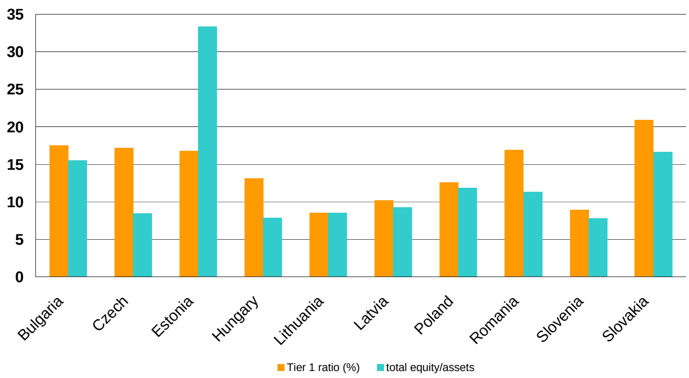
Table 3

System-wide capital ratios: leverage and risk-weighted assets to common equity

a. All banks (aggregate data)



b. Domestic banks



Source: European Central Bank (2010).

c. Safeguarding against liquidity shortfalls

A second key objective of the Basel Committee was to prevent a recurrence of system-wide liquidity stress. This was motivated by the realisation that, before the crisis, large institutions had funded long-term assets through wholesale finance in the assumption that such funding could continually be rolled over. Other institutions were even unprepared for intermittent stress in short-term funding markets. Overall, there was a misapprehension of potential system-wide liquidity strains.[17]

The Basel Committee presents stronger capital buffers as a first line of defence against liquidity strains, which are widely regarded as a symptom of previous overextension in

[16] See compilation of regulatory ratios and standards for calculating risk-weighted assets in Unicredit Group (2011).
[17] Wellink (2010).

balance sheets.[18] As an additional safeguard the Committee adopted two complementary liquidity standards, a feature newly incorporated into the Basel framework:

- a liquidity coverage ratio (LCR) that gauges an institution's capacity to cover potential outflows occurring over a 30-day period by virtue of holding highly liquid, high-quality assets[19]
- a net stable funding ration (NSFR), designed to ensure a stable funding structure over a one-year period, under a stress scenario that assumes very limited access to market funding. Assets funded over a one-year horizon should be funded with liabilities that are stable over the same period.

While a requirement on short-term liquidity is common to most regulatory regimes, the definition of long-term liquidity will be based on a number of complex assumptions (for example, conversion factors on different asset classes depending on their risk profile), and has already elicited considerable opposition from the industry. In the end, the Committee considerably widened the pool of assets deemed eligible in complying with the LCR and acknowledged that its initial proposals on the NSFR were too demanding. Both ratios will only be introduced after extended "observation periods" – in the case of the NSFR no sooner than 2018 – and the Committee is yet to define the final shape of the NFSR requirement.

Potential impact in the NMS

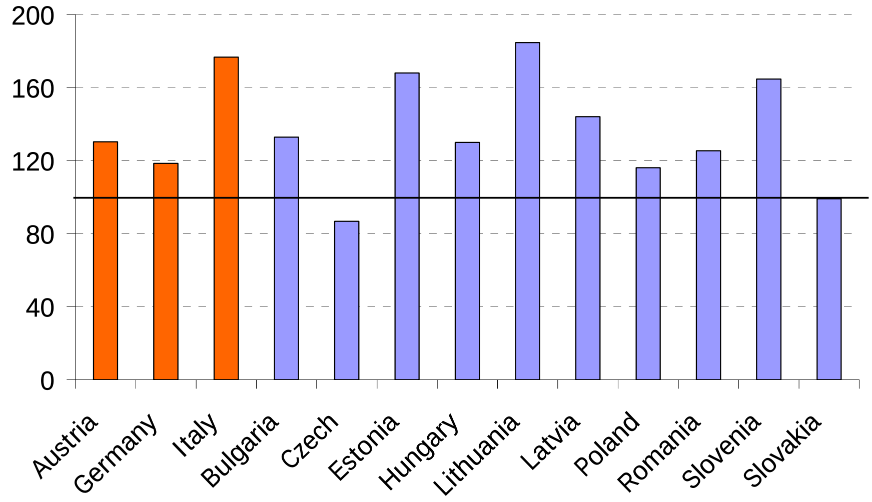
Banks in the CEE region traditionally run large funding shortfalls, as underlined by dependence on foreign funding and evident in loan-to-deposit ratios often in excess of 120 per cent (see Chart 3). There are important exceptions in a number of countries – notably in the Czech and Slovak Republics, who adopted more prudent regulation and where there already existed a culture of deposit-based bank funding long inculcated in the local banking industry. Elsewhere, funding shortfalls were typically met out of parent bank sources and on wholesale markets, such as the markets for syndicated loans or eurobonds. The treatment of intra-bank exposures under Basel III and the CRD will hence take on central importance.

[18] Borio (2009).

[19] The ratio is defined as the stock of assets that can be readily converted into cash relative to potential net outflows over a one-month period. Assumptions for the denominator were particularly controversial and were subsequently softened.

Chart 3

Loan-to-deposit ratios



Source: European Central Bank (2010).

While the exact definitions remain to be finalised within CRD IV, Basel III predicts a considerable tightening of what amounts to liquid assets relative to what at present is permissible under national regulation. Unlike existing local regulations on repo transactions, Basel III may exclude from short-term liquid assets – relevant for calibrating the LCR – anything other than assets attracting a zero capital weight under newly revised rules, hence limiting liquid assets to government securities and cash. “High quality liquid assets” may include securities that attract a risk weight under capital calculations but are rated above AA-. Yet, since corporate bonds in most NMS (which are in turn bounded by the sovereign rating) are typically rated low, many bank holdings of assets that are at present repo-eligible may effectively be ruled out. On the liability side, assumptions for potential outflows of wholesale deposits may exceed what has been observed to date.

Moreover, it is likely that the more long-term target under the NSFR will present considerable difficulties for banks. The value of long-term securities as a share of total liabilities is extremely limited: the National Bank of Poland (NBP) cites a share of only 1.6 per cent. Equally, the share of term deposits is very low. Banks’ capacity to raise long-term funding is thus also limited. These estimates underline that the majority of Polish commercial banks would fail to comply with the NFSR.[20] Moreover, the NBP expects that “in order to comply with the NFSR, banks would seek to convert their long-term loans into short-term ones, which would reduce the stability of funding of entities from the real economy, with potential negative effects for economic growth”.[21]

Whether banks will be in a position to lengthen the average maturities of their funding in the interim before the adoption of the NFSR is far from clear. The shortening of maturities that occurred in the follow-up of the financial crisis has not been fully reversed, with systemically important banks still struggling to meet the demand for long-term funding.[22] As regards local funding markets, the curtailment of private pension funds in the CEE region – typically key

[20] Simulations are performed for the year 2009, cited in National Bank of Poland (2010a).
[21] National Bank of Poland (2010b).
[22] For example Magyar Nemzeti Bank (2010a) demonstrates the growing share of short-term external funding.

institutional investors with long-term investment horizons – will likely further constrain banks' capacity to bridge maturity shortfalls.

At the same time, following the introduction of CRD IV, intra-bank exposures across countries may be treated as liabilities to unaffiliated parties. This would make them subject to the limits for large exposure – currently under discussion within the European Commission – unless national regulators will exempt them on the basis of predefined criteria.[23] The risk, also recently expressed by the NBP, is that banks that are part of -cross-border groups "would require to build, practically from scratch, their deposit base or extend the maturity of liabilities obtained within the group, which might push up the funding cost of all banks. This, in turn, could translate into the increase in credit costs or into compromising banks' capacity to generate capital internally".[24]

Some positive effects can also be expected from the introduction of the CRD IV as banks will try to match their mortgage portfolio with longer-term funding, possibly including covered securities. These can partly replace direct parent bank funding (if parents and market investors indeed buy these securities). However, market conditions may need to improve to make funding through long-term securities feasible.

In sum, the impact of stricter liquidity requirements in the NMS region will likely lie in a fragmentation of funding relationships between parents and their subsidiaries, partly depending on the treatment of such funding as short-term unaffiliated liabilities under the CRD. Accounting complexity and operational costs may go up, should different national implementation standards be allowed. In particular, maturities in corporate lending are likely to shorten and funding costs to rise, given the relatively shallow domestic inter-bank and bond markets. Countries with a traditional funding surplus will be resilient to such changes while those with continued reliance on inter-bank and parent funding will be affected most. De-leveraging in cross-border exposures – already evident in reductions in the net foreign asset positions of banking sectors in countries such as Hungary – may accelerate once these liquidity ratios factor in the treasury planning of bank groups.

[23] The European Commission consulted on a proposal that limits all inter-bank exposures to the highest of either 25 per cent of own funds or €150 million.
[24] National Bank of Poland (2010 a).

5. Ensuring system stability: macro-prudential measures

An excessive focus on prudential requirements specific to individual institutions has often been blamed for neglecting systemic risks that had built up before the crisis and are evident, for instance, in the form of the shadow banking system in developed markets or in growing leverage in mortgage lending in the emerging Europe region. The introduction of macro-prudential requirements – seeking to protect the integrity of the financial system as a whole – was hence a novel idea and was finalised relatively late in the preparation of the Basel package.

There is a large number of such instruments and, arguably, some have already been in effect in the NMS, for instance capital adequacy requirements in excess of CRD minima in Bulgaria, the Czech Republic and Romania, or limits in LTV ratios in mortgage lending introduced in Hungary in 2010.

The Basel framework includes just one such instrument - a countercyclical capital buffer. Jurisdictions where credit growth is deemed excessive – which may, hence, lead to a build-up of system wide risks – are required to impose an additional capital surcharge of up to 2.5 per cent of risk-weighted assets on Tier 1 equity.

Unlike the micro-prudential requirements that will be translated directly into European regulation, the decision on imposing countercyclical buffers will be based solely on a guidance note issued by the Committee. This will leave considerable discretion to national authorities in determining the factors that trigger such additional requirements and how they will vary over time.[25] As already envisaged in the full Basel package, the decision to impose the buffer will lie with the home country authorities, making internationally active banks subject to the weighted average of capital requirement in the various subsidiary jurisdictions. The CRD consultation envisages the application of this buffer within the European Union at all levels where capital requirements are applied – that is, on the institutional and national level and in the fully consolidated entity.[26] A country may impose buffers in excess of 2.5 per cent but in these instances home country obligations for reciprocity will not apply.

The objective of imposing additional capital requirements in times of buoyant credit growth is twofold: first, to protect the financial system against the greater risk of insolvency that is likely to arise from the deterioration in credit standards typically associated with such periods. And, second, to *stem* excessive credit growth through the resulting effect on loan pricing. This second linkage, however, is likely to be weak, arise with a lag, and possibly only indirectly. As pointed out by Hanson *et al* (2011), the fact that in a long-run equilibrium equity is deemed more expensive than debt capital will largely stem from the more favourable tax treatment of the former. Simple elasticities that can be computed suggest that even a much more significant additional capital buffer would not lead to significant increases in net interest margins.

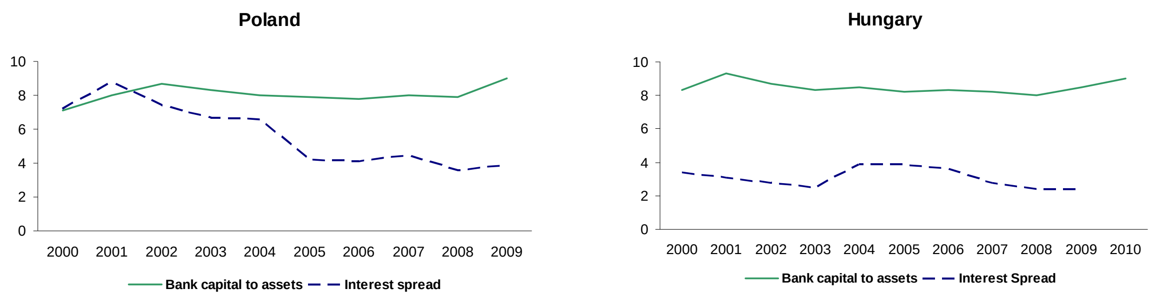
The evolution of capital ratios and net interest margins in key banking systems in the region suggests that this relationship is not just weak but wholly absent at times (see Chart 4). That is intuitive, as banking systems are dominated by subsidiary type outlets for which capital ratios are managed within the integrated group structure and loan pricing is largely based on

[25] Basel Committee on Banking Supervision (2010).
[26] European Commission (2010b).

international market conditions. Internal treasury and pricing practices make it unlikely that additional capital ratios are sufficient to curb excessive credit growth within a banking system dominated by foreign subsidiaries.

Chart 4

Net interest margins and capital ratios



Sources: IMF (2010) and Raiffeisen Zentralbank Group (2010).

Notwithstanding doubts over its efficacy, the industry has also raised numerous concerns over the implementation of the countercyclical capital buffer.[27] As a trigger for the invocation of the countercyclical buffer BCBS proposes the deviation from trend of a credit-to-GDP variable. To monitor all incipient risks the Committee proposes a comprehensive measure of credit to the private sector, including measures from non-bank and non-resident sources. Such a measure is typically not available in under-developed financial systems, and indeed missing in several NMS. Moreover, any series is likely to be short, with little information about the underlying trend, and in economies highly open to capital flows likely to be volatile. Our compilation of best available credit data and underlying trends in a number of key economies demonstrates that this simple variable would have delivered frequent and confusing signals. The BCBS guidance document acknowledges the need for a more holistic assessment based on a number of other variables, though that in turn would likely undermine the Committee's own objective of a "common reference". The considerable judgement involved in assessing systemic risks will likely make capital requirements in the NMS hard to predict.

[27] See for example, Institute of International Finance (2010).

6. Basel III, financial stability and financial development: is it desirable and what is missing?

Sounder and more transparent capital coverage in line with global standards will reduce risks perceived in exposures to NMS banks. Still, it is remarkable that in the debate on the desirability of Basel III within the NMS, additional capital requirements have been less contentious than within the core EU-15. On the whole, the capital budgeting in the NMS has been conservative, with limited use of unconventional instruments such as hybrid capital. System-wide capital ratios are unlikely to face major hurdles in meeting the requirements by 2014, when binding standards come into effect, though there remain some institutions that only comply marginally, as identified by the CEBS 2010 stress tests. Limiting the use of minority stakes in consolidated group capital may be appropriate in strengthening capital ratios across European bank groups but will hold back equity market development and change the nature of bank acquisitions in the region. Even on the aggregate leverage ratio – a novel backstop measure that has proved relatively controversial in western Europe – the consultation responses of central banks from the region do not convey great concern.[28]

The issue that has perhaps created the greatest industry concern are the proposed standards on liquidity. A first and immediate concern relates to the discrepancy between what Basel standards will consider as liquidity and the reality of central bank refinancing instruments which at the time of writing are still in effect. On the basis of Basel III, liquid assets will be defined as being "highly marketable", and this will clearly be more restrictive than the eligibility criteria for refinancing operations with national central banks or the ECB. Most European supervisors in fact recognise assets as liquid if they are eligible for central banks' credit operations and can be exchanged for cash, regardless of their marketability. While the ECB refinancing instruments are certain to be phased out over the coming years, the Basel liquidity requirements forebode a drastic, if inevitable, tightening.

A second crucial issue from the perspective of the NMS is the scope of application of liquidity regulations. Under the adopted Basel proposal, liquidity requirements should be applied at the level of the consolidated entity. Under the CRD IV, by contrast, the European Commission has recently proposed that the Basel III liquidity standards be applied by host countries to subsidiaries as well. The fact that this has found support from at least some central banks in the region may be due to the uncertain nature of cross-border liquidity support.[29] National application of liquidity standards will create trapped pools of liquidity and impede the functioning of bank-internal liquidity transfers. It is nevertheless appropriate from the perspective of individual regulators outside the euro area (without ready access to ECB refinancing instruments) or where fiscal authorities seek to prevent assuming liabilities from bank failure once liquidity problems morph into solvency issues.

Both short-term and long-term liquidity requirements will likely lead to a fragmentation of liquidity management within the internal capital markets of European bank groups. To the extent that such funding relationships with the parent are integral to the operation of their subsidiaries, this will likely undermine what EBRD (2009) identifies as a growth-enhancing role of cross-border bank groups.[30] There may be a sensible trade-off where regulators now attribute larger costs to potential liquidity shortfalls. Yet, there may not be sufficient

[28] Bulgarian National Bank (2010) and National Bank of Poland (2010b).
[29] National Bank of Poland (2010b), in comments on Question 9.
[30] See also Committee on the Global Financial System (2010).

recognition of maturity shortfalls being deeply embedded in a history of macroeconomic volatility, and of uncertainty over the future course of monetary policy and institutional under-development, impeding the growth of long-term local institutional savings and investment.

This is a particular risk if, as will likely be the case, intra-group funding will be treated at least partly as funding from external third parties. Maturity mismatches would not be allowed to be netted out when consolidated across the different jurisdictions in which the group operates. Hence, a legal entity funding long-term assets with short-term intra-group funds would effectively be required to extend the maturity of the intra-group liabilities to comply with the NSFR. National regulatory autonomy could have tangible effects on operational costs, as banks with hitherto centralised liquidity management may need to replicate such functions at the subsidiary level. Some bank groups would need to adopt an essentially decentralised treasury model in order to comply with different accounting standards across their network.

A final concern relates to the impact of the Basel III requirements on local capital market development. The development of liquid local currency bond markets remains a stated policy objective in several countries, including Hungary and Poland. Banks are the largest participants in CEE corporate bond markets. Therefore, measures which restrict banks' ability to finance bond holdings would likely have a detrimental effect on market development.

In particular, the NSFR could require banks to issue long-dated senior unsecured bonds in order to finance existing as well as new longer-term assets, while penalising banks' holdings of most financial sector assets by giving these assets limited value in the calculation of long-term liquidity value. The resulting imbalance between demand and supply could lead to disruptions in this important market sector of the nascent CEE capital markets. In jurisdictions where covered bond legislation and investor bases exist, the relatively favourable treatment of covered bonds for liquidity purposes acts as a mitigating factor. This is, however, mostly not the case in the NMS.

While new liquidity ratios imply a considerable adjustment in the funding structures of banks operating in the region, other liquidity-related vulnerabilities specific to emerging markets remain unaddressed, and may warrant reflection in European regulation. Several regulators highlighted the need to address vulnerabilities from open foreign currency positions.[31] In their euro-denominated money market funding, banks in the NMS rely to a significant extent on unsecured transactions – largely from their parents – and on foreign currency basis swaps.[32] Swaps are key instruments in matching a predominantly foreign currency-denominated asset structure with what is typically a local currency-denominated deposit base. Swap counterparties were located predominantly in the open market, and less commonly within the parent bank treasury. This dependence is a much more vulnerable funding structure than in the euro market overall, as was evident over the course of the financial crisis when swap funding volumes contracted and pricing and maturities offered deteriorated sharply. Margin calls by the swap counterparty in response to local currency depreciation are a standard feature of swap contracts and could confront the local bank with considerable liquidity risk. This may lead to a bank no longer being in a position to meet its other obligations.[33]

[31] Magyar Nemzeti Bank (2010b).
[32] World Bank (2009).
[33] Barkbu and Ong (2010).

Lastly, there are a number of broad concerns over the administration of the countercyclical capital buffer in the EU context. Already on the early and somewhat vague BCBS proposals and CRD IV consultation questions comments by NMS central banks pointed to the need for a broader toolkit of measures or more discretion by national central banks.[34] The subsequent more detailed BCBS proposals on the frequency of buffer decisions (at least quarterly) and the lag between the announcement of a systemic risk and resulting capital requirements (up to a year) are unlikely to make this tool responsive to rapidly emerging risks. A broader concern is that the announcement of imminent additional capital requirements may prompt customers to rush into fresh lending or draw down existing credit lines. Alternatively, credit may be sought in the non-banking sector, which is likely to be less well regulated. Conversely, the announcement of the buffer being *released* may be perceived by the market as a negative signal on the country's economic outlook with adverse effects on risk spreads applied to more marginal counterparties in inter-bank markets. Those risks warrant countercyclical buffers as a more permanent feature. These concerns are not necessarily generic to emerging markets, such as the NMS, but are likely to be accentuated where macro-prudential supervisors are poorly resourced or weak in relation to their governments.

[34] Bulgarian National Bank (2010) and Magyar Namzeti Bank (2010b).

7. Conclusions: some prerogatives in shaping the EU's new regulatory framework

The Basel framework and its European implementation in the form of CRD IV represent important progress in addressing the vulnerabilities that sparked the financial crisis at the level of both individual institutions and the financial system overall. However, the framework may leave considerable discretion at the national level in interpreting certain prudential ratios, for instance on liquidity, and in determining the case for additional countercyclical buffers. Uncertainty over the implementation of these requirements will complicate the task for capital budgeting and treasury management within European bank groups. Financial integration through the direct provision of banking services has underpinned financial stability in the region and supported growth. Greater scope for national application of capital and liquidity requirements – and for differing interpretations and implementations of such requirements – risks undermining these gains, and underlines the need for strengthened coordination in national supervision efforts.

In this matter, some progress has been made within the European Union. Following the adoption of the revised CRD package, the work of the newly established European Banking Authority (EBA) in guiding the implementation of these requirements in individual national jurisdictions will be essential. However, consolidated supervision will depend on progress in regard to a European framework for crisis management and cross-border fiscal burden sharing. Over time, this may reduce the need for country-by-country enforcement of capital and liquidity standards as currently expected under CRD IV.

Fragmentation in the interpretation of systemic risks and uncoordinated responses to such risks may be addressed by the European Systemic Risk Board (ESRB) which also came into existence in early 2011. The key responsibility of this new agency is the identification of systemic risks and the recommendation of appropriate measures concerning, among others, the supervision of large institutions. Tools considered by the ESRB are likely to go well beyond additional capital requirements. The EU-wide perspective may overcome some of the shortfalls in addressing systemic risks through national measures, as currently proposed by the Basel Committee, and take account of potential spill-over effects from national measures.

References

A. Abiad, D. Leigh and A. Mody (2009), "Financial integration, capital mobility, and income convergence", *Economic Policy*, vol. 24, no. 4, pp. 241-305.

G.B. Barba Navaretti, G. Calzolari, A.F. Pozzolo and M. Levi (2010), "Multinational Banking in Europe: Financial stability and regulatory implications lessons from the crisis".

B. Barkbu and L. Ong (2010), "FX Swaps: Implications for Financial and Economic Stability", *IMF Working Paper no. 10/55*, Washington, IMF.

Basel Committee on Banking Supervision (2010), "Guidance for national authorities operating the countercyclical capital buffer", www.bis.org/publ/bcbs187.htm.

Bank of International Settlements (2010), "Group of Governors and Heads of Supervision announces higher global minimum capital standards", www.bis.org/press/p100912.pdf

C. Borio, (2009), "Ten propositions about liquidity crises", BIS Working Papers, no. 293, BIS.

Bulgarian National Bank (2010), "Response to the Commission Services Staff Working Document on the possible further changes to the CRD", available on the web.

Committee of European Banking Supervisors (2010), "Results of the comprehensive quantitative impact study", December 2010.

Committee on the Global Financial System (2010), "Funding patterns and liquidity management of internationally active banks", CGFS Papers no. 39, Basel: BIS.

M. Cremers, R. Huang, and Z. Sautner, "Internal Capital Markets and Corporate Politics in a Banking Group", Rev. Financ. Stud. (2011) vol. 24(2), pp. 358-401.

R.T.A. De Haas and I.J. Naaborg (2006), "Foreign banks in transition countries: to whom do they lend and how are they financed?", *Financial Markets, Institutions & Instruments*, 15(4), 159-199.

R. De Haas, Y. Korniyenko, E. Loukoianova, and A. Pivovarsky (2011), "Foreign banks during the crisis: sinners or saints?", mimeo.

European Central Bank (2010), "EU Banking Sector Stability".

European Commission (2010a), "Commission Services Staff Working Document: Possible further changes to the capital requirements directive", http://ec.europa.eu/internal_market/consultations/docs/2010/crd4/consultation_paper_en.pdf.

European Commission (2010b), "Consultation Document, Countercyclical Capital Buffer", http://ec.europa.eu/internal_market/consultations/docs/2010/capitalbuffer/consultation_paper_en.pdf.

EBRD (2009): *Transition Report – Transition in Crisis?*

S. Hanson, A. Kashyap, and J. Stein (2011), "A macroprudential approach to financial regulation", *Journal of Economic Perspectives*, vol. 25, no. 1, pp. 3-25.

Institute of International Finance (2010), "IIF Views on the Basel Committee Consultative Document 'Countercyclical Capital Buffer Proposal'", September, available on the web.

IMF (2010), “Global Financial Stability Report”, October.

Magyar Nemzeti Bank (2010a), “Report on Financial Stability”, November 2010.

Magyar Nemzeti Bank (2010b), “Comments and suggestions concerning the working document of the Commission Services staff on CRD 4”, http://circa.europa.eu/Public/irc/markt/markt_consultations/library?l=/financial_services/requirements_directive_1/public_authorities/mnb_enpdf/_EN_1.0_&a=d.

National Bank of Poland (2010a), “Financial Stability Report”, July 2010.

National Bank of Poland (2010b), “Position of the National Bank of Poland on the Commission Services Staff Working Document ‘Possible further changes to the capital requirements directive’”, http://circa.europa.eu/Public/irc/markt/markt_consultations/library?l=/financial_services/requirements_directive_1/public_authorities/pl_nb_enpdf/_EN_1.0_&a=d.

Raiffeisen Zentralbank Group (2010), “CEE Banking Report”, available on the web.

S. Rottier, and N. Veron (2010), “Not all financial regulation is global”, Bruegel Policy Brief no. 7, September 2010.

UniCredit Group (2009), “Cross border banking in Europe: what regulation and supervision?”, Discussion Paper.

UniCredit Group (2011), “CEE Banking Outlook”, January.

N. Wellink, (2010), “The Basel Committee and regulatory reform, remarks made at the Institute of International Finance Spring Meetings”, June 2010.

World Bank (2009), “EU-10 Regional Overview”, February 2009.