

**FOR  
AGENDA**

SM/13/137  
Correction 1

June 11, 2013

To: Members of the Executive Board  
From: The Secretary  
Subject: **Former Yugoslav Republic of Macedonia—Selected Issues**

The attached corrections to SM/13/137 (6/3/13) have been provided by the staff:

**Factual Errors Not Affecting the Presentation of Staff's Analysis or Views**

**Page 17, Figure 1:**

for "Source: NBRM."  
read "Sources: NBRM; ISA; MAPAS; and IMF staff calculations."

**Page 18, Figure 3, Source:** for "IMF Staff estimates." read "IMF staff calculations."

**Page 21, Figure 5, Legend:**

for "Millions of persons per bank (rhs)"  
read "Thousands of persons per bank (rhs)"

**Page 30, Table 1, Column 1, Structural features and asset composition, line 4:**

for "Millions of persons per bank"  
read "Thousands of persons per bank"

**Typographical Errors**

**Page 11, Figure 15:** source added to read "Source: World Bank; and Bilateral."

**Page 13, para. 20, line 1:**

for "Clustering FDI and making sure spillover transmission channels exist are"  
read "Clustering FDI and making sure spillover transmission channels exist is"

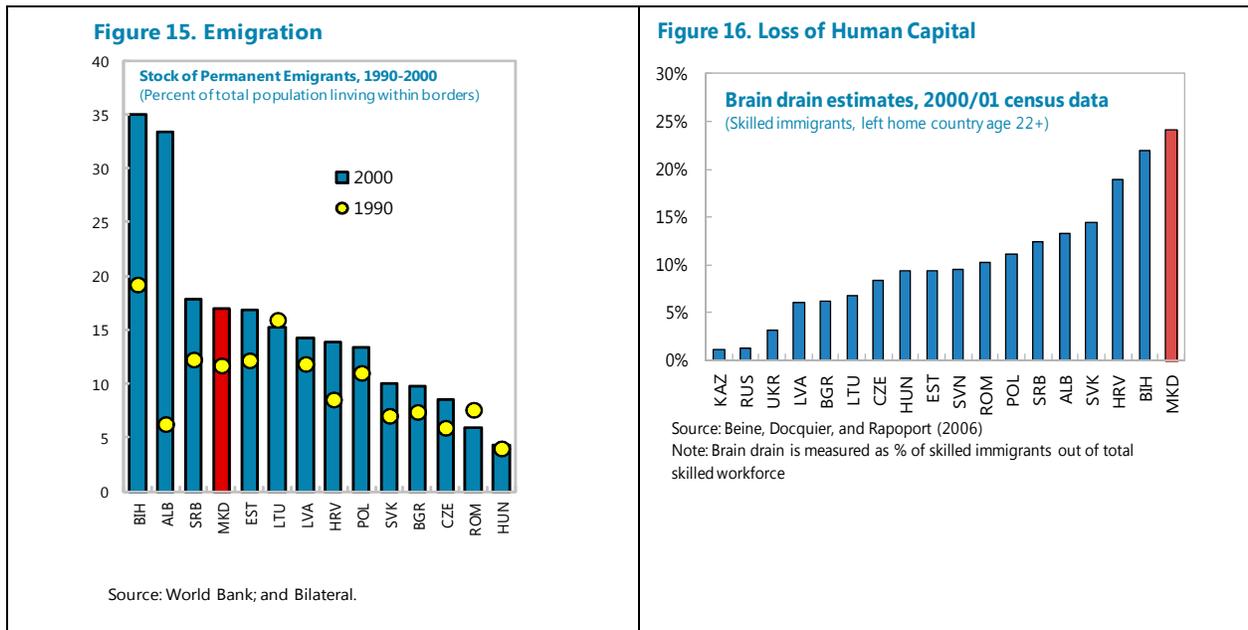
Questions may be referred to Mr. Gerard (ext. 39576), Mr. Meyer Cirkel (ext. 35947), and Mr. Tieman (ext. 34434) in EUR.

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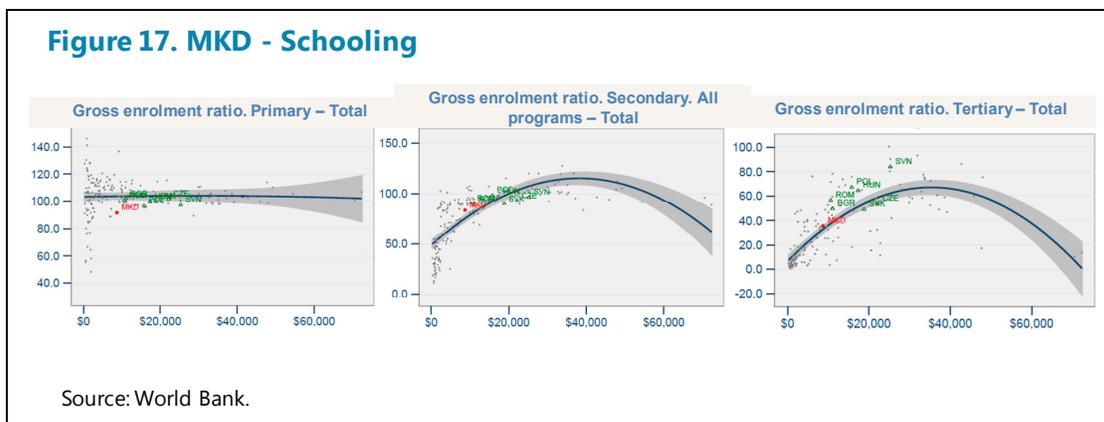
Att: (6)

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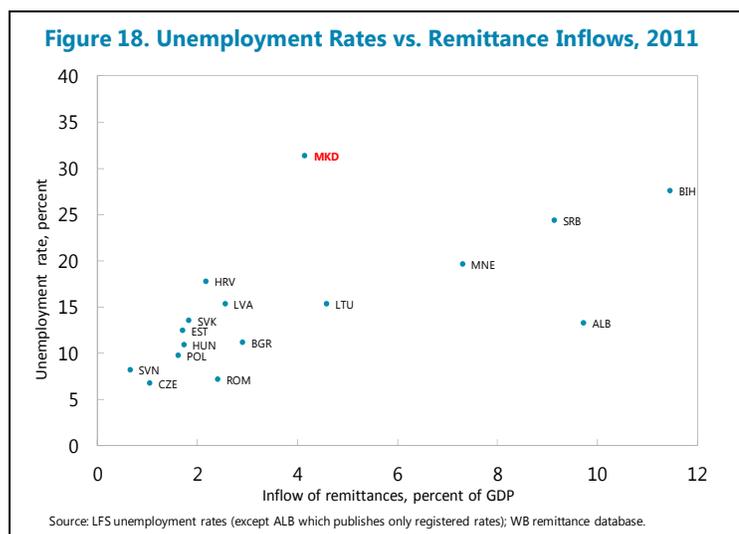
**14. The second channel of conversion, labor mobility, has been more open, but led to a considerable loss of important human capital.** Theory would predict that less skilled labor would move to more developed countries in search for higher pay, and generate a stream of remittance in the aftermath. For skilled labor the pulling forces are less clear: usually skill-scarcity and higher expected returns locally should keep business and salary developments buoyant, and thereby exert force for skilled labor to stay. The disintegration process of former Yugoslavia increased the immigration flow from the Balkans. Figure 15 shows the stock of permanent migrants in 1990 and 2000. Macedonia was not as severely impacted as other Balkan countries, such as Bosnia and Herzegovina or Albania, but it felt the exodus particularly on the highly skilled part of the population. Figure 16 plots brain drain estimates derived from bilateral census data from 2000/01 (Beine, Docquier, and Rapoport 2006). This rough estimate, as well as anecdotal evidence, suggests that Macedonia was particularly hard hit by skilled labor migrating abroad. A likely consequence of losing this important pool of qualified workers is that structural economic change is much harder or slower to achieve, particularly in high productivity growth sectors.



**15. Primary education enrollment is below levels of peers, slowing down replenishment of lost skills and technology absorption.** Given the extensive brain drain experienced by Macedonia, particularly in the course of the 1990s, it is important to assess at which rate the human capital is being rebuilt in the country. When taking gross enrollment ratios as proxies for skill replenishment efforts being undertaken, certain shortcomings are noticeable. Primary education enrollment is considerably below income peers as well as NMS. Secondary and tertiary enrollment is in line with income peers, but below competitors for FDI (Figure 17). In addition to shortcomings in the enrollment rates, there are gaps in the effectiveness of the schooling system, as can be measured by international assessments' of pupils' skills (Mojsoska-Blazevski, 2013). Taken together, education deficiencies will be affecting the skills-mismatch as well as the technology absorption capacity of the country.



**16. The result of a large and skilled pool of émigrés is a considerable flow of remittances, which could be impacting reservation wages.** The large Macedonian workforce abroad is contributing to sizeable remittance inflows into the country. While still lower than for a few of its Balkan peers (Figure 18), this might be due to BoP recording issues, given that private transfers stood above 15 percent in 2011. While the size of the effects of remittances on labor force participation is not clear from a few key empirical studies (e.g., Amuedo-Dorantes 2006), some degree of disincentives and or a more relaxed engagement on the part of jobseekers should be at play.



### C. The Importance of Structural Change and the Role of FDI in Speeding Up the Process

**17. The right speed and form of structural transformation are vital for securing resource allocation to higher productivity sectors.** The debate on features and importance of structural transformation for economic development is old, but still en vogue. Quite recently the discussion has been revived, partly influenced by a publication by Rodrik and McMillan (2011). There the authors posit that countries managing to diversify away from agriculture and other traditional products will be the ones pulling out of poverty and moving up the income ladder. The speed at which this structural transformation takes place is key. More broadly, the idea behind fast and successful structural change is that capital and labor are going to shift towards those businesses and sectors of the economy that are experiencing the largest productivity improvements. Those sectors will then be driving output growth and an expansion of labor demand.

**18. Fast structural change needs capital and labor mobility as well as a proper and stable institutional setting.** Labor needs to move freely between regions and sectors, in search for highest expected pay and most promising outlook. At the same time, capital mobility should allow investments to flow into those projects with the greatest expected and risk-adjusted returns. Usually that is a function of a transparent, properly endowed and regulated financial sector. Both capital and labor will only flow efficiently to those sectors with the most promising outlook if the institutional set up is stable and consistent. The incentive structures for demand and supply should not be biased by inappropriate state intervention/taxation.

**19. The case for FDI speeding up the process of growth is clear.** While portfolio equity and bond flows should have a beneficial impact on financial and economic development, more recent empirical literature only finds a consistently significant impact of FDI on economic growth across different country groups and time spans (see Aizenman et al 2011). FDI has the advantage of being a more stable channel to tap foreign savings as well as foreign technology, know-how, and marketing channels. The key issue here is that investments are made having the medium to long term as a maturity horizon in mind, thereby insuring an appropriate incentive structure for projects to also import a larger set of foreign technology.

**20. Clustering FDI and making sure spillover transmission channels exist is crucial for speeding up structural transformation.**

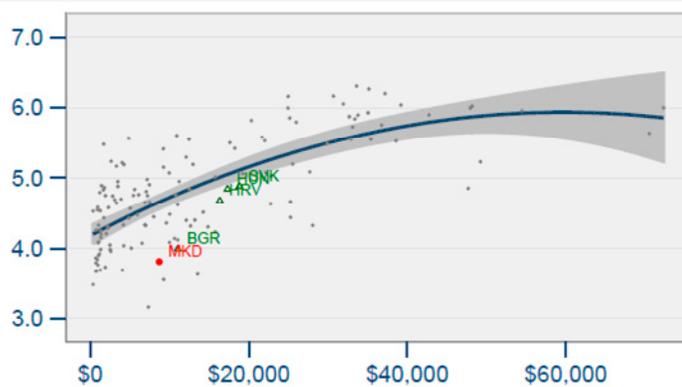
The importance of spatial clustering and interlinkages to promote global production networks as well as technology dissemination and spillovers has been known for a while. But the success stories of the different development zones in China have propelled interest in analyzing those case studies. Kim (2011) looks in more detail at the Qingdao development zone, which epitomizes the importance of creating networks for information/technology spillovers.

The existence of knowledge flows between local companies, external and local research institutes, and various Chinese technology transfer and technology development centers is crucial to generate all the positive externality related to technological spillover. Hence, the impact of FDI is magnified by the amount of technology that is transferred from one company to the broader sector or even across sectors.

**21. Macedonia has been able to generate a healthy pipeline of FDI, but without an appropriate technology absorption capacity the impact will be limited.** Rapid and continuous improvements of the ease of doing business in Macedonia, paired with low labor costs and a

**Figure 19. Technology Absorption Capacity**

MKD – Firm-level technology absorption index, 1-7 (best) Score

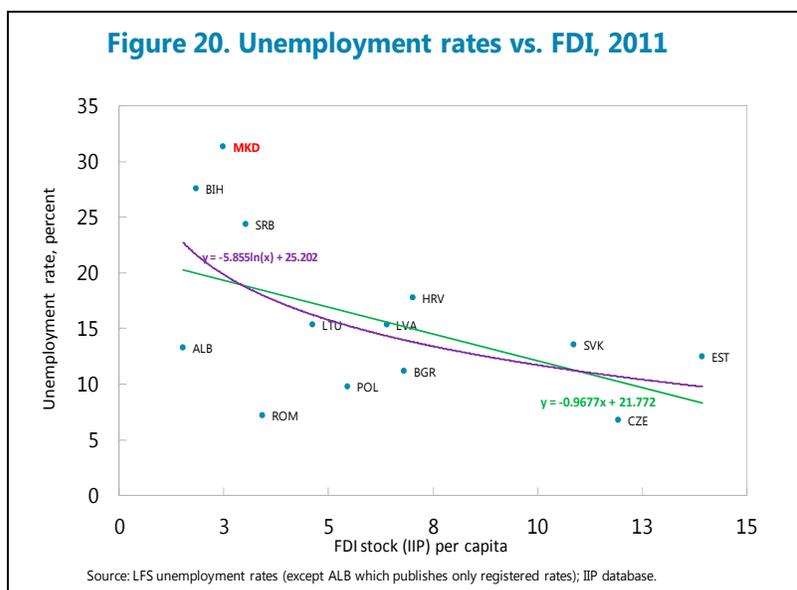


Source: World Bank

relatively stable macroeconomic environment, has recently attracted many sizeable international investors. A considerable FDI pipeline has been the result, and with it continuous improvements in the diversity of the export base are to be expected. While improving the range of products exported and potentially expanding the trade partner relationships are important, enabling technology to spread from the Technological-Industrial Development Zones (TIDZ) to the rest of the economy will be key. Only then the speed of structural transformation needed to push industrial development across more regions, as well as an increased output growth, and employment expansion can be achieved. One first proxy for the capacity of a country to absorb technology is computed by the World Bank (Figure 19). The index shows that Macedonia performs poorly in the capacity to absorb technology, not only when compared to the NMS but also when compared to a wider set of income peers.

**22. While it is difficult to speak about causality there seems to be an empirical relationship between FDI and unemployment.** This chapter so far has made the case for the importance of FDI

in speeding up the process of structural change, and thereby boosting growth and employment demand. As a means of a simplified test, Figure 20 plots the FDI stock per capita versus the unemployment rate. Of course a bivariate plot only allows very limited inference into potential causal relationships, given that one would need to control for a large set of additional variables. Keeping that caveat in mind, the figure seems to show that some type of relationship should be at play.



## D. Conclusions

**23. Considerable achievements have been made allowing a faster pace of structural change, but challenges remain.** Necessary improvements in the business environment, continuous infrastructure build up, and a remarkable FDI pipeline place Macedonia on an advantageous position to experience the fast structural change necessary for increased income convergence vis-à-vis the EU. The main challenges are threefold:

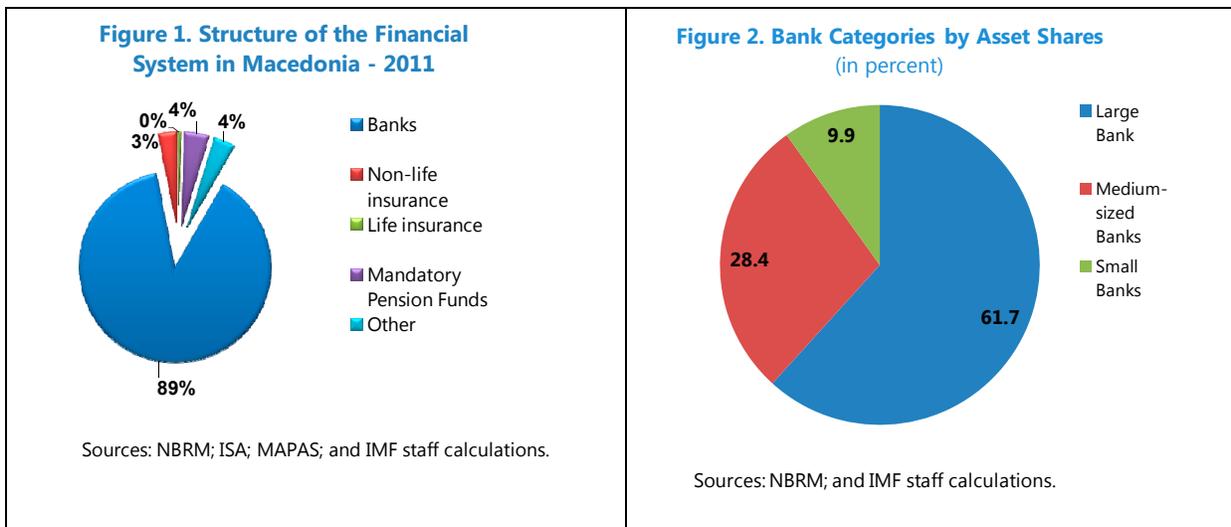
- **First**, maintenance of macroeconomic stability, and further improvements of institutional capacity and legal certainty is crucial. The confidence of the business community must be fostered by avoiding discretionary policy and making sure that macroeconomic and fiscal policy are geared towards supporting growth.

# FINANCING CONVERGENCE<sup>1</sup>

*This paper assesses ways in which the Macedonian financial sector could better contribute to growth and real convergence, taking stocks of where the sector stands and its recent developments. Drawing parallels with features of the financial systems in other European transition countries and using the results of a basic econometric model, it distills policy recommendations aimed at further easing the financing of economic catching-up. Streamlining bankruptcy procedures, improving collateral valuation by strengthening accounting practices in SMEs and starting the systematic collection and publication of real estate sales data, and revisiting the interest rate cap may serve to moderately boost credit supply.*

## A. Introduction

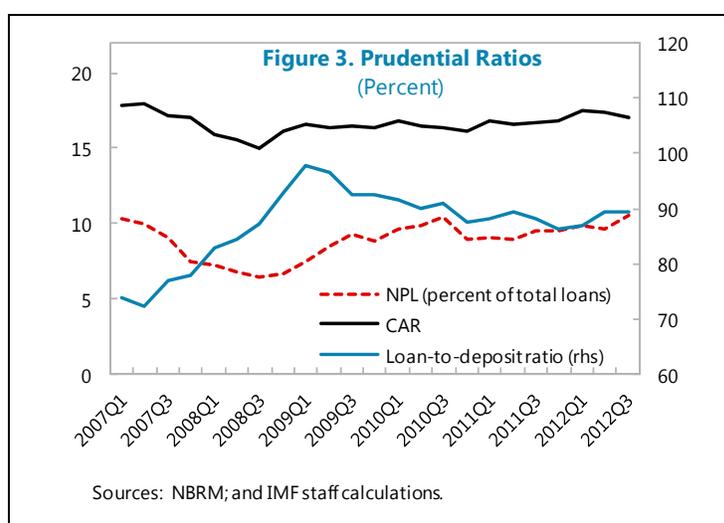
**1. Financial intermediation is traditionally bank-based in Macedonia.** Banks make up some 89 percent of the financial system (Figure 1). Second pillar (funded) pension funds, which have been introduced in 2006, comprise 4 percent of the system. Insurance companies represent a similar share, with assets mainly (87 percent) related to property and casualty insurance, and life insurance assets making up a small (13 percent), but rapidly growing category. Other parts of the financial sector, such as leasing and securities markets have been residual over the last few years.



<sup>1</sup> Prepared by Marc Gerard (EUR) and Alexander Tieman (Resident Representative to Macedonia, EUR). We are grateful to Robert Peterson for invaluable help and research assistance in compiling data and setting up most charts and tables, as well as to Gjorgji Nacevski for his kind and efficient work on Macedonian data sources.

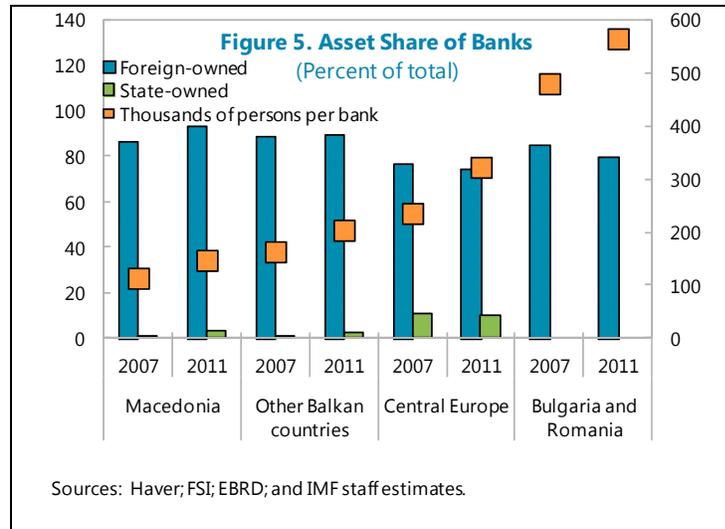
**2. The banking system is concentrated.** It is dominated by 3 large banks out of a total of 16, each with a balance sheet of €1 billion equivalent or more, together representing a 62 percent asset market share (Figure 2). This segment is followed by 6 medium-sized banks, with balance sheets totaling between €182 and €440 million equivalent<sup>2</sup>, for an asset market share of some 28 percent. The remainder segment of small banks consists of 7 institutions, together representing a market share of just under 10 percent. Ownership is largely in foreign hands, but all foreign-owned banks operate as standalone subsidiaries, under domestic regulation and supervision, and with their own balance sheets.

**3. The banking system has exhibited considerable resilience throughout the recent economic crisis** (Figure 3). One important factor underlying this stability has been the reliance on domestic deposits as the main financing instrument, as indicated by a loan-to-deposit ratio well below 1. Since banks do not rely on external (parent) wholesale financing, the crisis did not prompt deleveraging, as was the case in many other countries in the region. Another factor of resilience relates to the basic nature of banking: banks tend to know their customers well and do not deal in derivatives or exotic products. Prudent supervisory policies by the National Bank of the Republic of Macedonia (NBRM) likely also played a role in insulating banks from the ongoing turmoil.



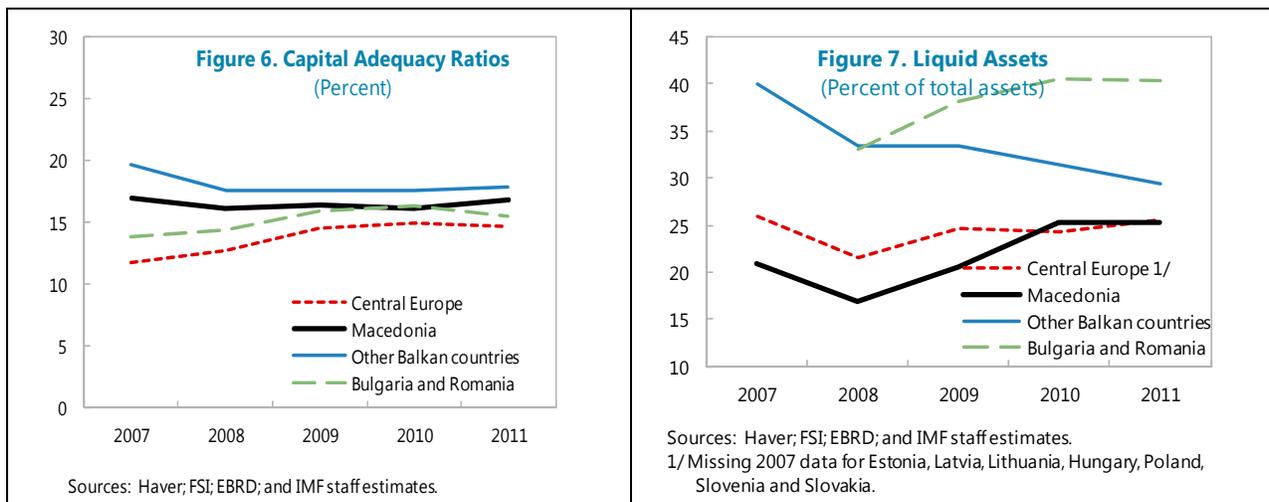
**4. As a counterpart to this stability, credit growth has remained low.** While the slowdown may appear especially pronounced since the start of the crisis, Macedonia actually has a long history of modest credit growth. In the late 1990s and early 2000s, weak credit to the private sector (partly related to the civil conflict of 2001), led to Macedonia being labelled a “sleeping beauty” among CESEE peers (Cottarelli et al, 2003). Over the last decade, credit growth first picked up to grow quite

<sup>2</sup> In the central bank’s classification, Ohridska Bank, with €440 million equivalent in assets, is classified as a large bank. As its balance sheet still represents less than half that of any of the largest three banks however, we group it within the medium-sized banks category.

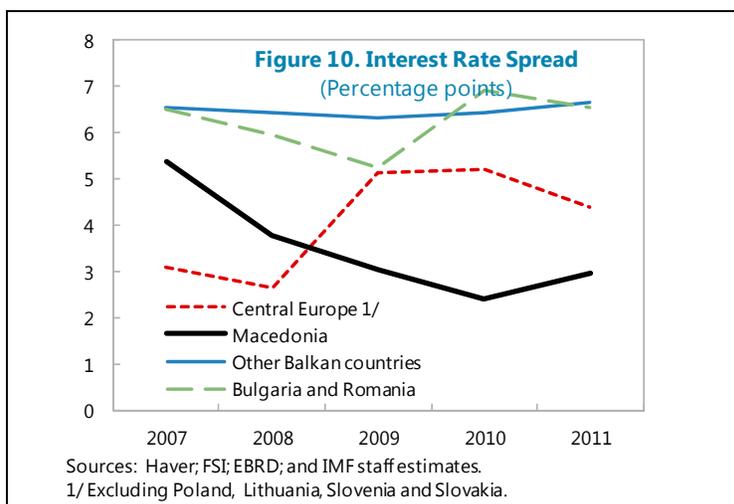
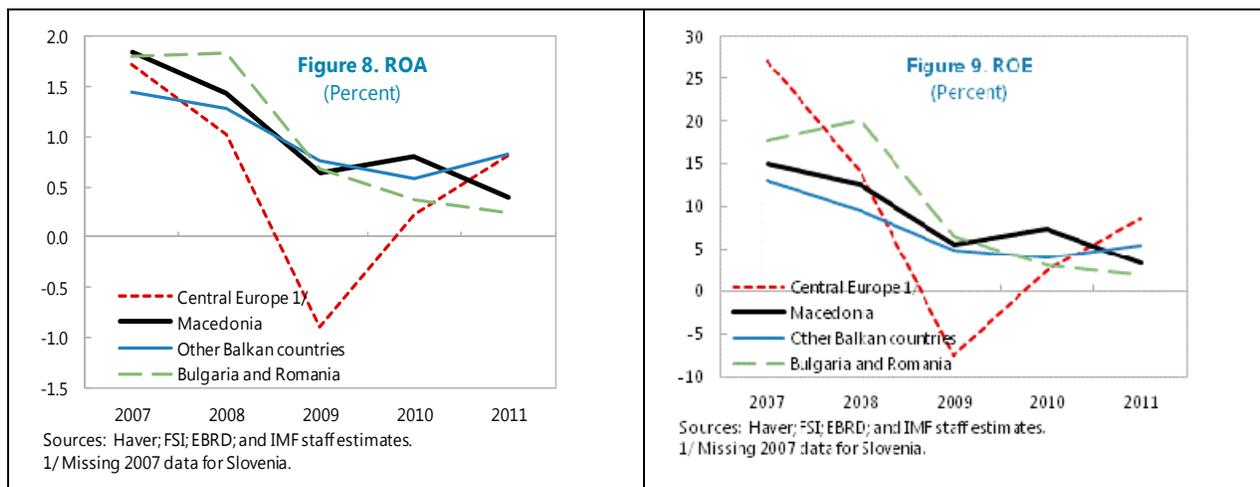


## Prudential Indicators and Performance

**10. The prudential indicators of Macedonian banks are generally in line with peers.** Capital adequacy ratios are high, below those in other Balkan countries but slightly above those in more developed Central European banking systems (Figure 6). Likewise, with 29.4 percent of liquid assets on their balance sheets at the end of 2012, Macedonian banks are about as liquid as their Central European counterparts, but somewhat less liquid than banks in other Balkan countries (Figure 7).



**11. Profitability has been deteriorating since the onset of the crisis.** The pace of decline has been comparable to that in other Balkan countries, but more gradual than in Romania and Bulgaria, let alone Central Europe (Figures 8 and 9). Some of the reduction in profits has been driven by particularly low interest margins (Figure 10), which decreased more than in peers and continue to hover significantly below the levels observed in comparable banking systems. In addition, increased NPL provisioning seems to have contributed very significantly to the deterioration of profitability.



**12. The high level of NPL provisioning stands out among peers.** Since 2007, NPLs almost doubled, to reach 11.7 percent of total loans in February 2013. However, alone among peer countries, loan loss provisions by banks remain larger than the stock of NPLs in Macedonia, due to high provision charges taken by banks when loans become non-performing, as well as (modest) provisions held against performing loans. While depressing profitability, these provisioning charges have increased buffers against shocks. Moreover, to the extent that some recovery from NPLs can be expected, such full provisioning may actually increase future profits at the expense of current profitability.

**Credit Developments**

**13. Compared to peer countries, financial convergence has been low in Macedonia, partly due to the belated development of the banking sector.** Credit growth and the concomitant

## D. Policy Recommendations and Conclusions

Steps could be taken to alleviate some of the constraints identified above:

- **The streamlining of bankruptcy procedures is already on the agenda.** The authorities are currently in the process of reviewing the bankruptcy legislation, notably with a view to shorten the procedures and introduce a framework for speedy restructuring of bankrupt enterprises. Training for bankruptcy administrators is also planned to be scaled up, while efficiencies in the court system are starting to be addressed. In this regard, the judiciary could also usefully benefit from training to increase its understanding of economic issues;
- **The interest rate cap legislation is perhaps the easiest structural factor to tackle.** Abolishing or amending the legislation would allow for proper credit risk differentiation among riskier borrowers, enabling banks with good credit assessment mechanisms to better price risk in this segment, hence broadening access to finance. To safeguard borrowers, the law could be complemented by better targeted consumer protection, in line with regulation in European peers;
- **Further improvements of corporate accounting practices in SMEs and collateral valuation methods could also contribute to enhance credit availability.** Presented with better sets of books, banks could consider lending against business plans rather than just against collateral, while more realistic valuations of collateral would lower credit risk. Yet improvements in accounting practices would require training, primarily for small and medium-sized entrepreneurs, but also for their domestic auditors. To improve valuation methods, data collection could be improved. A good start would be to have the cadastre record and publish real estate sales transactions. Over time, this would allow for the built-up of time series data and proper modeling of real estate prices in liquid market segments.
- **Recent changes to the NBRM policies aimed at relaxing provisioning rules may have additional, albeit modest positive effects.** The NBRM has made changes to provisioning rules for collateral-in-possession and reserve requirements, and adopted comprehensive amendments to the rules governing NPL provisioning, with the dual objectives of forcing banks to progressively release collateral and giving them more leeway in provisioning new loans. These changes, which will become effective in 2014, are likely to only have marginal positive effects on credit.

**36. Within a context of weak credit growth and low level of financial deepening, this paper has argued that a few structural policy measures could enhance credit supply.** Given the close interplay between credit demand and perceived lending opportunities by banks, some low-cost steps may be taken here and now to unlock a few structural (albeit, arguably, marginal) impediments to credit supply—either due to excess risk aversion by banks or to institutional or capacity constraints. In turn, increased credit could contribute to growth by better financing both consumption and investment needs.

## Appendix 1: The Banking Sector in Macedonia and Peer Countries

Table 1. Structural features and characteristics of the banking sector in Macedonia, other Balkan countries and Central and Eastern European countries

	Macedonia		Other Balkan countries		Central Europe		Bulgaria and Romania	
	2007	2011	2007	2011	2007	2011	2007	2011
Structural features and asset composition								
Number of banks	18	17	23	25	22	22	24	25
of which: foreign-owned	11	13	20	21	16	15	15	17
of which: state-owned	1	1	1	1	2	2	0	0
Thousands of persons per bank	113.6	147.3	163.4	203.9	235.4	322.2	479.3	563.9
Asset share of foreign-owned banks (percent of total)	85.9	92.9	88.5	89.2	76.4	73.9	84.8	79.2
Asset share of state-owned banks (Percent of total)	1.4	3.1	1.4	2.5	10.7	10.3	0.0	0.0
Asset share of major 3 banks (percent)	68.0	65.7	51.1	50.3	63.3	60.7	47.6	41.8
Credit and deposit developments								
	(Percent of GDP, unless otherwise indicated)							
Domestic credit to private sector	35.3	44.9	44.5	54.6	63.2	66.5	49.1	55.3
Domestic credit to households	13.9	17.7	21.4	23.2	25.6	30.9	19.4	21.4
Of which mortgage lending	1.5	3.8	8.6	12.0	17.5	22.5	6.6	9.1
Mortgage Lending (percent of household lending)	11.2	21.7	40.4	51.6	68.5	73.0	34.0	42.6
Domestic credit to non-financial corporations 1/	21.1	27.1	21.9	30.2	26.0	26.5	29.6	35.1
Share of FX-loans to total loans (Percent) 2/	54.7	59.2	69.4	70.2	26.9	36.1	...	63.6
Deposit euroisation: share of FX-deposits to total deposits	43.8	48.7	55.1	61.0	28.3	27.1	39.6	39.5
Loan-to-deposit ratio (percent)	0.8	0.9	1.0	1.0	1.3	1.2	1.2	1.2
Profitability and prudential indicators								
	(Percent, unless otherwise indicated)							
CAR	17.0	16.8	19.6	17.9	11.7	14.6	13.8	15.5
Tier 1 capital (percent of Risk Weighted Assets) 3/	15.7	14.1	...	15.8	...	12.8	...	13.9
ROA 4/	1.8	0.4	1.4	0.8	1.7	0.8	1.8	0.2
ROE 5/	15.0	3.4	13.1	5.5	27.1	8.6	17.6	1.9
Loan-to-deposit interest rate spread (percent) 6/	5.4	3.0	6.5	6.7	3.1	4.4	6.5	6.5
Non-performing loans (percent of total loans) 7/	7.5	9.5	4.9	15.4	2.1	10.1	2.3	14.5
Liquid assets to total assets (percent) /8	20.9	25.3	40.0	29.5	26.0	25.5	...	40.4
Memo items								
GDP (Billions of euros)	6.0	7.6	22.7	24.6	87.0	99.7	77.6	87.4
Y/Y GDP growth rate, average over last 5 years	4.6	2.2	5.2	1.2	6.5	-0.2	6.4	0.5
GDP per capita (euros, PPP)	7631.5	8784.1	8765.9	9310.5	17575.7	18386.0	10045.0	11025.6
GDP per capita (euros)	2916.8	3055.3	6042.3	4872.1	16807.1	13904.7	6891.3	6202.5

Sources: EBRD; FSI; IFS; WEO; Haver; Country Authorities; BankScope; and Raiffeisen Research.

Central and Eastern European countries: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

Other Balkan countries: Albania, Bosnia &amp; Herzegovina, Croatia and Serbia.

1/ Central and Eastern Europe: missing 2007 data for Estonia, Latvia, Lithuania and Slovakia. Other Balkan countries: Serbia missing in 2007.

2/ Central and Eastern Europe: excl. Poland Slovakia, and Slovenia.

3/ Central and Eastern Europe: missing 2007 data for Estonia, Latvia, Lithuania, Hungary, Poland, Slovenia and Slovakia.

4/ Central and Eastern Europe: missing 2007 data for Slovenia.

5/ Central and Eastern Europe: missing 2007 data for Slovenia.

6/ Central and Eastern Europe: missing data for Lithuania [last obs. 2010], Poland [last obs. 2006], Slovakia [last obs. 2008] and Slovenia [last obs. 2009]).

7/ Central and Eastern Europe: missing 2007 data for Slovenia.

8/ Central and Eastern Europe: missing 2007 data for Estonia, Latvia, Lithuania, Hungary, Poland, Slovenia and Slovakia.