EUROPEAN CENTRAL BANK

EUROSYSTEM

Occasional Paper Series

Martin Gächter, Piotr Macki, Isabella Moder,
Éva Katalin Polgár, Li Savelin, Piotr Żuk

Financial stability assessment of EU candidate and potential candidate countries

Developments since 2014

No 190 / May 2017

Disclaimer: This paper should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB.

Contents

Abstract

This paper reviews and assesses financial stability challenges in countries preparing for EU membership, i.e. Albania, Bosnia and Herzegovina, Kosovo[1], the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey. The paper focuses on the period since 2014 and on the banking sectors that dominate financial systems in this group of countries. It identifies two main near-term challenges applying to most of them. The first relates to credit risk, which remains substantial despite some progress in reducing the burden of non-performing loans on banks' balance sheets in the period under review. However, progress so far is limited, partly owing to structural impediments. The second relates to the still high share of foreign exchange denominated loans and deposits, which poses an indirect credit risk in the case of lending to unhedged borrowers and impairs the monetary transmission channel. In addition, profitability is worth monitoring going forward, as it remains subdued in many countries given high provisioning needs and a lacklustre credit growth and low interest rate environment. These concerns are generally met with a solid shock-absorbing capacity, as exemplified by robust capital and liquidity buffers.

JEL codes: F31, F34, F36, G15, G21, G28.

Keywords: Banking sector, financial stability, foreign exchange lending, credit growth, EU accession, Western Balkans, cross-border flows, deleveraging.

[1] This designation is without prejudice to positions on status and is in line with UNSCR 1244 and with the ICJ Opinion on the Kosovo Declaration of Independence.

Executive summary

The financial systems of EU candidate and potential candidate countries continued to be dominated by banks in 2015 and 2016, which in the Western Balkans are mostly subsidiaries of banks headquartered in EU countries. Banks in EU candidate and potential candidate countries are characterised, on average, by robust capital buffers, which exceed regulatory minima by a considerable margin and are predominantly composed of Tier 1 capital. Their liquidity situation can also be regarded as favourable, suggesting that banks should be able to cope with unexpected shocks. However, in some countries vulnerabilities arise from a few domestically owned banks that exhibit declining liquidity and capitalisation ratios, as well as from a few banks that rely on public sector support.

Credit developments remained heterogeneous during the period under review. While credit growth was high in Turkey, the former Yugoslav Republic of Macedonia and Kosovo, it remained more subdued in the other countries, mainly on account of high levels of non-performing loans, as well as a negative outlook at group level and globally. Within lending to the private sector, the stock of household loans increased – in comparison with corporate sector loans – in all countries except Turkey. The deposit base also grew in all countries, which in most cases led to a fall in loan to deposit ratios. Average reference lending rates exhibited a downward trend, but margins seem to be still comfortable on account of lower deposit rates.

Widespread loan and deposit euroisation/dollarisation remains one of the largest financial stability risks in EU candidate and potential candidate countries, as it poses an indirect credit risk in the case of lending to unhedged borrowers and impairs the monetary policy transmission channel. Foreign currency loans make up a significant part of the loan stock in countries that do not use the euro as their legal tender, although their share in total lending declined slightly in most of these countries in the period under review. On the aggregate level, these loans were largely covered by foreign exchange deposits, mitigating direct exchange rate risks for banks. At the same time, this deposit base also provided a stable source of funding for foreign exchange lending, potentially promoting it further.

Funding conditions for parent banks whose subsidiaries have a strong presence in EU candidate and potential candidate countries exhibited diverging patterns in the period under review. For banking groups subject to (potential) restructuring and banking groups headquartered in Greece, funding costs remained relatively elevated. Bank equity valuations declined on account of the current low credit growth and interest rate environment, as well as concerns about asset quality. Nevertheless, deleveraging by parent banks in EU candidate and potential candidate countries moderated further.

Elevated ratios of non-performing loans in most countries covered continue to constitute a financial stability challenge for the region. Overall, non-performing loans (NPLs) account for up to one-fifth of total loans, and progress in reducing their levels remained slow despite the introduction of comprehensive resolution strategies in two countries (Albania and Serbia). Besides discouraging new lending, the high level of NPLs also remains a drag on bank profitability, which remained heterogeneous in the period under review. As retained earnings are the main source of capital for banks in EU candidate and potential candidate countries, profitability ratios are also helpful in assessing banks' resilience to adverse shocks and thus warrant careful monitoring.

1 Introduction

ECB staff – under the auspices of the International Relations Committee – have in recent years provided reports on financial stability challenges in countries preparing for membership of the European Union (EU). These reports have been produced biennially since 2003 and published since 2006 in the ECB's Occasional Paper Series.[2] In the light of the continued high interest in financial stability issues in countries with close real and financial links to both the euro area and the EU, in the last edition the coverage was extended to EU potential candidates, given the common features and challenges to financial stability across countries.

The remainder of this paper is structured as follows. The first part provides an overview of the relevant aspects of financial stability, structured around horizontal topics. In particular, sections in this part briefly analyse the structure of financial sectors in EU candidate and potential candidate countries, the capitalisation and liquidity of banking systems, balance sheet dynamics in the period under review, the phenomenon of foreign currency lending and deposits, funding conditions for parent banks and bank deleveraging, developments in asset quality and bank profitability. In the second part, country-specific assessments detailing the salient challenges to financial stability are provided in the country annexes. The paper covers the period since 2014, and due to the cut-off date uses data up to June 2016.

2 See ESCB International Relations Committee Expert Group (2006), "Macroeconomic and financial stability challenges for acceding and candidate countries", Occasional Paper Series, No 48, ECB; ESCB International Relations Committee Expert Group (2008), "Financial stability challenges in candidate countries: managing the transition to deeper and more market-oriented financial systems", Occasional Paper Series, No 95, ECB; ESCB International Relations Committee Expert Group (2010), "Financial stability challenges in EU candidate countries: financial systems in the aftermath of the global crisis", Occasional Paper Series, No 115, ECB; ESCB International Relations Committee Expert Group (2012), "Financial stability challenges for EU acceding and candidate countries: making financial systems more resilient in a challenging environment", Occasional Paper Series, No 136, ECB; ESCB International Relations Committee Expert Group (2015), "Financial stability challenges in EU candidate and potential candidate countries", Occasional Paper Series, No 164, ECB.

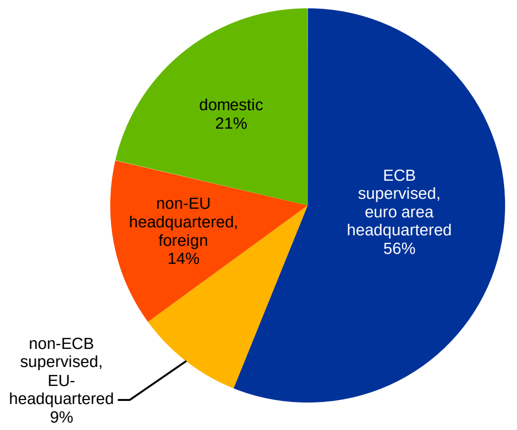
2 Financial sectors in EU candidate and potential candidate countries

Financial sectors in EU candidate and potential candidate countries strongly rely on bank funding for economic activity. Although the degree of financial market development varies considerably across the seven countries, their economies are all to a large extent bank-based, with the banking sector accounting for between 68% (Kosovo) and 92% (Serbia) of financial system assets. Therefore, the remainder of the paper focuses solely on the banking system.

The banking sector in the Western Balkans is dominated by foreign banks, while domestically owned banks prevail in Turkey. Between 70% and 90% of banking sector assets in the Western Balkan countries are controlled by foreign entities. The strongest foreign presence is in Albania, Bosnia and Herzegovina as well as Kosovo with above 83% of banking sector assets, while in the former Yugoslav Republic of Macedonia the ratio is just below 70%. Turkey is characterised by larger domestic (in several cases state-owned) banks dominating the market, with foreign-owned banks accounting for just below 30% of banking sector assets.

Chart 1
Distribution of banking sector assets by geographical origin, Western Balkans

(as a percentage of total banking sector assets, June 2016)



Sources: National authorities and ECB staff calculations

EU headquartered banks have a strong presence in the Western Balkans, even though other foreign banks have gained market share over recent years. EU headquartered banks account for close to 65% of total banking sector assets in the Western Balkans; 56% of total assets are held by banks directly supervised by the ECB (**Chart 1**). This being said, other foreign banks, for instance headquartered in Russia and Turkey, entered the market in recent years, in many cases with a more proactive business strategy to gain market share. In addition, in 2015 and 2016 non-traditional players (such as holdings or investment companies) ventured into banking activities by taking over existing (euro area headquartered) local banks.

Banking sector concentration varies across the region. Close to or just above 60% of banking sector assets in Albania, the former Yugoslav Republic of Macedonia and Kosovo are in the hands of the top three entities operating in the country, most of which are foreign-owned (**Table 1**). The degree of concentration is more moderate in Bosnia and Herzegovina, Montenegro, Serbia and Turkey. Moreover, even though commercial banks continue to dominate financial sector activity, non-bank financial institutions (such as pension funds and insurance companies) have strengthened their presence in recent years. Nevertheless, their share in financial system assets remains negligible (below 15%, except in Kosovo at 32%; data as of the second quarter of 2016).

Table 1
Market concentration of three largest banks

(as a percentage of total banking sector assets, June 2016)

	Name of the bank	Share in total banking assets (%)
Albania	Banka Kombëtare Tregtare	26.2
	Raiffeisen	20.0
	Credins Bank	11.2
Bosnia and Herzegovina	Unicredit	24.2
	Raiffeisen	16.0
	NLB	9.0
Kosovo	Raiffeisen	25.7
	Procredit	23.0
	NLB	14.6
The former Yugoslav Republic of Macedonia	Komercijalna banka	22.5
	Stopanska banka (NBG)	20.3
	NLB	16.0
Montenegro	Crnogorska komercijalna banka (OTP)	15.9
	NLB	13.3
	Société Générale	12.0
Serbia	Intesa Sanpaolo	16.6
	Komercijalna banka	13.1
	Unicredit	10.0
Turkey	IS Bank	13.7
	Ziraat Bank	13.4
	Garanti Bank	11.4

Sources: Bureau van Dijk, national authorities and ECB staff calculations.

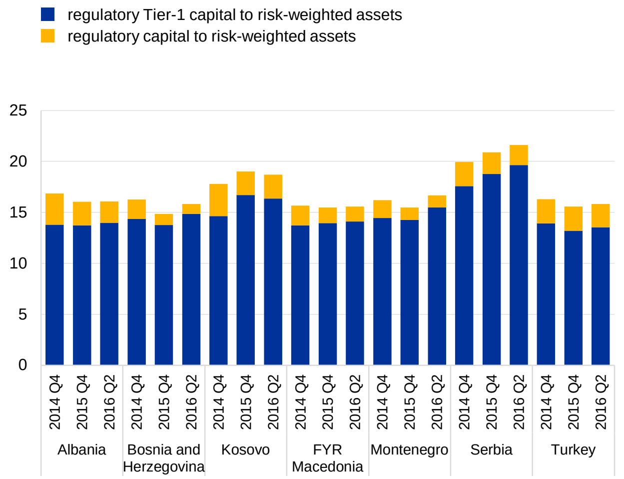
3 Capitalisation and liquidity

Overall, banks in all EU candidate and potential candidate countries continue to exhibit robust capital buffers. In the period under review, solvency ratios in most banking systems improved, with only Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia experiencing a marginal decline. In the second quarter of 2016 the ratio of regulatory capital to risk-weighted assets was well above the mandatory minimum in all EU candidate and potential candidate countries, ranging from 15.6% in the former Yugoslav Republic of Macedonia to 21.6% in Serbia (Chart 2). The improvement was achieved mainly by increases in capital rather than lower risk weights or declines in risk-weighted assets.

Chart 2

Regulatory capital to risk-weighted assets

(as a percentage)

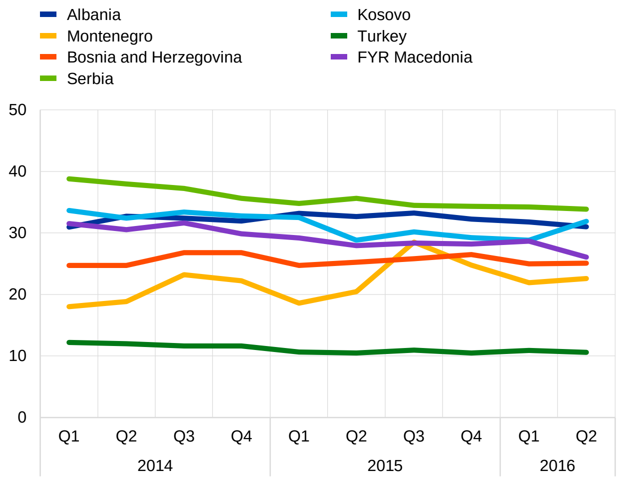


Sources: National authorities and ECB staff calculations.

Chart 3

Liquid assets to total assets

(as a percentage)



Sources: National authorities and ECB staff calculations.

The structure of regulatory capital is favourable from the point of view of the potential loss absorption capacity, as it largely consists of Tier 1 capital (Chart 2). Recorded high levels of risk-weighted assets to total assets reflect the conservative methods of estimating capital requirements, since the use of a standardised approach prevails in most banks, as opposed to relying on internal models. The key contribution to regulatory capital comes from retained earnings. Despite the generally favourable situation, in some countries there are pockets of vulnerability among few domestically owned banks, as affirmed by low liquidity and capital levels and large lending concentrations. In addition, a number of domestically owned banks tend to rely heavily on public sector support, including public ownership.

Banking sectors in EU candidate and potential candidate countries are also characterised by low leverage. In the second quarter of 2016, banks' traditional leverage ratio (i.e. the ratio of banks' assets to capital) ranged from 4.9 in Serbia to 10.4 in Albania.[3]

The liquidity position of the banking sectors in EU candidate and potential candidate countries has not changed significantly and remains favourable overall. Liquidity buffers available to banks (proxied by both the ratio of liquid assets to total assets and the ratio of liquid assets to short-term liabilities) appear adequate, suggesting that banks should be able to cope well with unexpected challenges associated with potential fund withdrawals (**Chart 3**). In the context of Turkey's high external financing needs, banks remain vulnerable to potential liquidity shocks arising in the foreign debt markets, although there are also mitigating factors (high liquidity coverage ratio and the lengthening maturity of foreign debt).

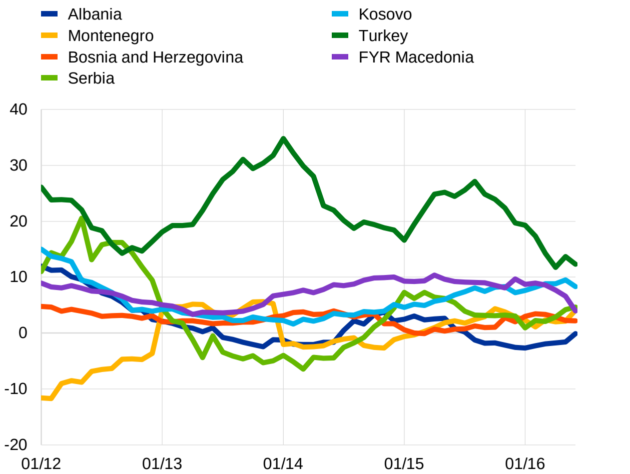
[3] Pro memoria, this ratio amounts to 8.5 in the EU, calculated as a weighted average of total capital to total risk exposure (EBA Risk Dashboard, second quarter of 2016).

4 Balance sheet dynamics

Private sector credit growth remained positive in most EU candidate and potential candidate countries during the period under review. In particular, credit growth was high in Turkey, the former Yugoslav Republic of Macedonia and Kosovo; however, in Turkey it has clearly fallen from its elevated levels of the past. In the former Yugoslav Republic of Macedonia, nominal credit growth also declined markedly, but on account of NPL write-offs (excluding these, the trend remained broadly stable). In other countries credit dynamics were more subdued, with even negative nominal growth rates recorded in Albania (**Chart 4**).[4] In line with credit developments, the level of financial intermediation only increased in Turkey and, more moderately, in Kosovo (where it remains the lowest, together with that of Albania) during the period under review. Elsewhere in the region it remained broadly unchanged or even declined, leaving ample room for further financial deepening (**Chart 5**). According to the most recent European Investment Bank (EIB) lending survey[5], factors behind weak credit dynamics originated mainly on the supply side, driven primarily by high NPL levels.

Chart 4
Credit to the private sector

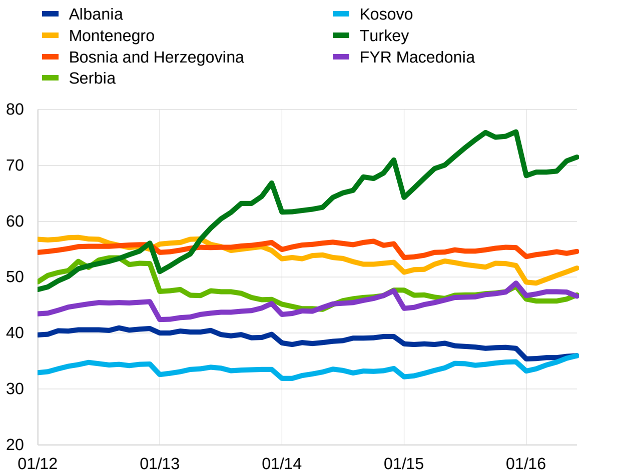
(annual percentage change)



Notes: Private sector comprises households and non-financial corporations. In the case of Montenegro, given the implementation of International Accounting Standards (IAS 39) in January 2013, pre- and post-2013 lending figures are not exactly comparable. Write-offs are included where applicable (see footnote 4). Data are not forex adjusted.
Sources: National central banks and ECB staff calculations.

Chart 5
Credit to GDP

(as a percentage of nominal full-year GDP)



Notes: Private sector comprises households and non-financial corporations. In the case of Montenegro, given the implementation of International Accounting Standards (IAS 39) in January 2013, pre- and post-2013 lending figures are not exactly comparable.
Sources: National central banks, IMF World Economic Outlook and ECB staff calculations.

4 In Albania and the former Yugoslav Republic of Macedonia, authorities have introduced mandatory write-offs for NPLs after they have been in the loss category for a specific period of time. The data depicted here does not exclude write-offs. If write-offs are excluded, the underlying pace of credit growth remained broadly stable in the former Yugoslav Republic of Macedonia.

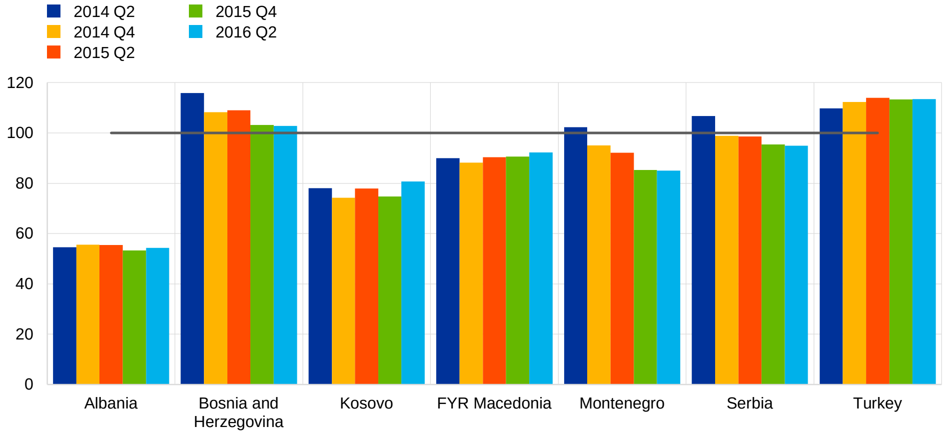
5 The edition of the EIB lending survey covering the first half of 2016. Of the countries in this note, Albania, Bosnia and Herzegovina, Kosovo and Serbia are covered in the country-specific chapters of the survey.

Within the stock of outstanding loans to the private sector, household loans and loans denominated in local currency gained in importance. In all countries, with the exception of Turkey[6], the stock of corporate sector loans contracted or at least increased less than the stock of household loans. The latter grew strongly in Kosovo and the former Yugoslav Republic of Macedonia (by more than 10% annually).[7] The currency composition shifted towards local currency loans in all countries except Serbia and Turkey. Nevertheless, in Serbia, substantial progress in dinarisation was recorded in the household sector (see also Section 5 on foreign currency lending and deposits).

Chart 6

Loan-to-deposit ratio

(as a percentage)



Note: Investment and development banks are excluded in the case of Turkey.
Source: National central banks.

From a flow perspective, new lending increased on average in most of the countries and was mainly directed towards the corporate sector. The volume of new loans issued in the period under review increased, on average, year on year in all countries, except Albania and the former Yugoslav Republic of Macedonia. In all countries, the volume of new loans was predominantly directed towards the corporate sector, but given that the stock of corporate loans to total loans decreased in all countries (except Turkey), the increase was not sufficient to match maturing and written-off corporate sector loans and additional household loans.[8]

Loan-to-deposit ratios also showed diverging trends across countries, but in the Western Balkans they remained below or close to 100%. All countries recorded deposit growth in both the household sector and the corporate sector in the period under review. The loan-to-deposit ratio fell in Bosnia and Herzegovina,

[6] In Turkey, owing to the introduction of macroprudential measures, growth in loans to households has tended to slow since the end of 2013.

[7] On account of very high growth rates in a specific segment of the household sector, the National Bank of the Republic of Macedonia (NBRM) adopted a set of macroprudential measures aimed at disincentivising certain types of household loans in December 2015.

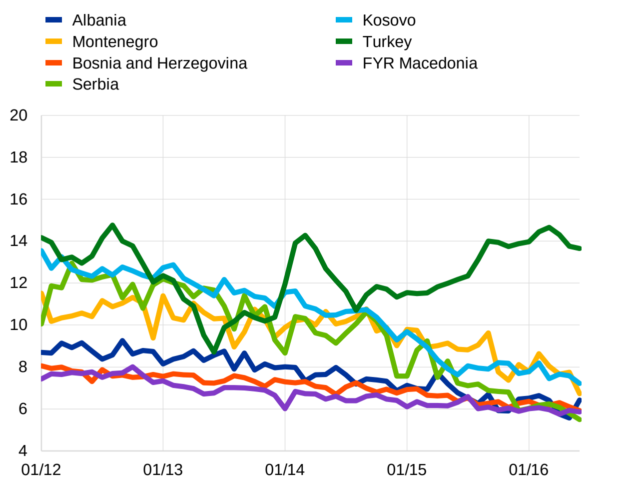
[8] Within private sector lending, the composition of the loan stock is more or less equally spread between corporate and household lending in Bosnia and Herzegovina and Montenegro. In other countries, the volume of loans to the corporate sector exceeds the volume of loans to the household sector.

Montenegro and Serbia, which had been comparatively more reliant on parent-funding previously, while it remained flat or increased slightly in Albania, Kosovo and the former Yugoslav Republic of Macedonia (**Chart 6**). In Turkey, the ratio remained above 100% and broadly stable, as strong deposit growth was unable to keep pace with elevated credit growth rates.

In the period under review, reference lending rates exhibited a downward trend in all countries except Turkey, but margins still appear comfortable. On account of lower funding costs (due to domestic monetary policy easing and low interest rates in the international money market), other measures related to reserve requirements to decrease the cost of funding in some countries[9] and increased competition, average weighted lending rates declined in all countries except Turkey[10] (**Chart 7**). The spread between loans denominated in local currency vis-à-vis foreign currency remained broadly unchanged except for Serbia, where the cumulative decrease of the key policy rate by 400 basis points in the period under review narrowed the spread considerably. The profit margins of interest rates as calculated by the spread between average lending and average deposit rates (**Chart 8**) seem to be still comfortable from the point of view of the banking sector in all countries.

Chart 7
Commercial bank lending rates

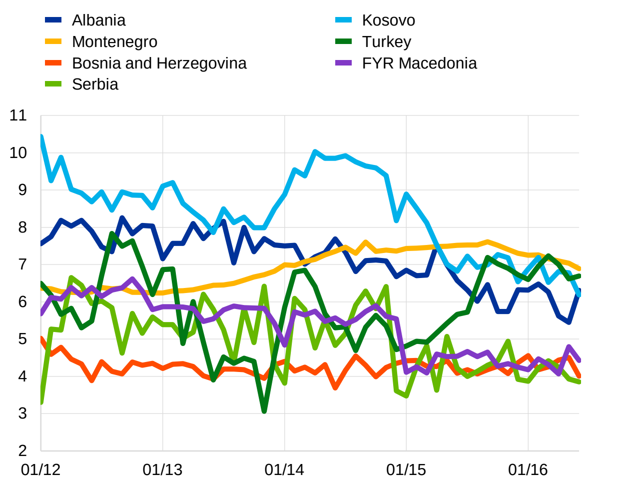
(as a percentage)



Note: Average weighted rates applied by commercial banks on new loans.
Source: National central banks.

Chart 8
Spread between lending and deposit rates

(as a percentage)



Note: Average weighted rates applied by commercial banks on new loans/deposits (outstanding amounts in the case of Montenegro, owing to a lack of data).
Sources: National central banks and ECB staff calculations.

9 The former Yugoslav Republic of Macedonia continued to apply a lower reserve requirement base for banks extending new loans to net exporters and domestic producers of electricity in the period under review, and lowered the reserve requirement ratio for liabilities with longer maturities (in 2012 and 2015), while Serbia decreased the forex reserve requirements in several steps in 2015 and 2016. Turkey cut local currency reserve requirements twice in 2016.

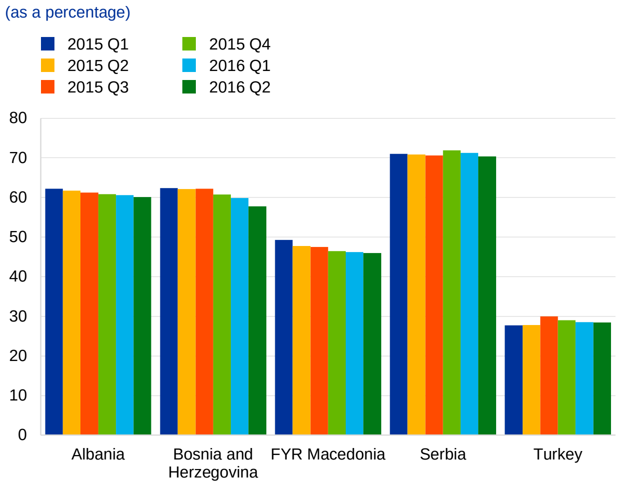
10 Average lending rates have also started to trend down in Turkey recently, following a decline in the overnight lending rate in March 2016.

5 Foreign currency lending and deposits

In Western Balkan countries that have a domestic currency[11] as their legal tender, foreign exchange denominated or indexed (forex) lending remains widespread, despite a gradual decline in the period under review. In particular, since the first quarter of 2015, loan euroisation/dollarisation[12] has decreased in Albania, Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia, while remaining broadly stable in Serbia and Turkey (**Chart 9**).

Chart 9

Share of forex loans (outright or indexed) in total loans



Source: National central banks.

Several factors have been contributing to the broader use of domestic currencies for credit in most EU candidate and potential candidate countries. First, the domestic macroeconomic environment remained broadly stable and inflation pressures were contained in all countries (except Turkey), which helped to buttress the credibility of local currencies. Second, a fall in the interest rate spread between local and forex denominated loans, particularly in Albania and Serbia, was supportive to borrowing in the domestic currency. Third, central banks in some of the countries (notably in Albania, the former Yugoslav Republic of Macedonia and Serbia) were applying measures aimed at the de-euroisation of balance sheets, both on the assets side and the liabilities side, given the interconnectedness of forex loans and forex deposits.[13]

Notwithstanding these developments, progress in de-euroisation has been very gradual and the stock of outstanding forex loans still varies from around one-third of total loans in Turkey to around 70% in Serbia. This is also due to widespread forex deposits, which provide an ample source of funding for new forex lending to the private sector. In Serbia new forex loans amounted to 67% of new lending, on average, in the period under review, however the share of domestic currency lending in total new lending, particularly among households, was on the increase in 2016. In other Western Balkan countries, new forex lending was lower (about 40% in the former Yugoslav Republic of Macedonia) and slowing gradually,

11 Owing to unilateral euroisation, the share of forex loans (deposits) in total loans (deposits) in Montenegro and Kosovo is very low or negligible. Forex lending and deposit developments in these economies are therefore not covered in this chapter.

12 In the Western Balkan countries forex loans are mostly denominated in euro, while in Turkey forex loans are denominated in US dollars or euro.

13 These measures include lower reserve requirements for domestic currency liabilities than for forex liabilities (the former Yugoslav Republic of Macedonia and Serbia); banning FX loans except those denominated in euro, mandatory down-payment for forex loans and loan-to-value ratio limits only for forex mortgage loans (Serbia); more favourable remuneration of reserve requirements in local currencies than in foreign currencies (Albania and Serbia); higher risk weights for unhedged borrowers (Albania); and incentives for banks to attract domestic currency deposits (the former Yugoslav Republic of Macedonia).

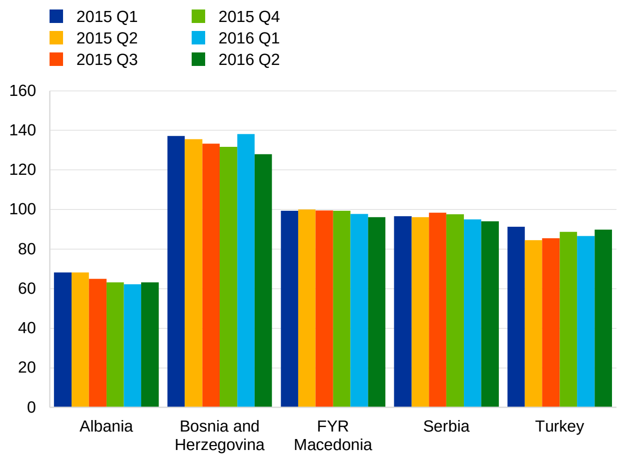
but this trend still needs to be ascertained in the period ahead. In Turkey new forex lending was relatively low and stable, at just below one-fifth of new loans.

In most EU candidate and potential candidate countries, lending to the corporate sector remained the main driver of loan euroisation.[14] This limits vulnerabilities to financial stability to the extent that hedging against exchange rate risks and a higher share of income in foreign currencies is presumably more frequent among corporations than households. In Turkey practically the whole forex loan portfolio belongs to the corporate sector owing to macroprudential measures aimed at preventing forex exposure for households and companies without forex income. In Albania and Serbia the share of corporates in total forex lending remained broadly stable, at three-quarters and two-thirds respectively. In the former Yugoslav Republic of Macedonia, however, forex lending was gradually tilting towards the household sector.

Chart 10

Ratio of forex loans to forex deposits

(as a percentage)



Source: National central banks.

Looking forward, notwithstanding these traits, the high stock of forex loans to unhedged borrowers continues to pose a tail risk to financial stability in most EU candidate and potential candidate countries in the event of significant currency depreciation. Policy frameworks in most countries have so far provided a stable anchor for nominal exchange rates through, for example, a currency board vis-à-vis the euro (Bosnia and Herzegovina) or a de facto stabilised arrangement vis-à-vis the euro (the former Yugoslav Republic of Macedonia). However, in all EU candidate and potential candidate countries that have their own currency, widespread loan euroisation reduces the degrees of freedom for monetary policy, in practice not allowing for downward nominal exchange rate adjustments should major shocks (foreign or domestic) occur, irrespective of the chosen monetary and exchange rate framework. Furthermore, euroisation also impedes the monetary policy transmission mechanism due to the fact that the impact of central banks on interest rates of euro-denominated assets and liabilities in the domestic economy is limited. Thus, actions to support de-euroisation should remain a priority on the authorities' agendas, both to limit tail risks to financial and macroeconomic stability and to enhance the degree of freedom for monetary policy, as well as its effectiveness.

In most EU candidate and potential candidate countries, foreign exchange-denominated deposits remain ample and are thus also a driver of forex lending. In the period under review, forex deposits amounted, on average, to over 70% of total deposits in Serbia, around 50% in Albania and over 40% in Turkey, Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia

[14] In Bosnia and Herzegovina data on the sectoral breakdown of forex loans are not available.

(increasing in the second quarter of 2016 in the latter on account of the political crisis).

Ample forex deposits provided a stable source of funding for forex lending at the aggregate level, while mitigating vulnerabilities related to banks' exposure to direct exchange rate risk (Chart 10). In Albania, the former Yugoslav Republic of Macedonia, Serbia and Turkey the ratio of forex-denominated loans to forex-denominated deposits remains stable and below 100% (in some of these countries by a considerable margin). However, in Bosnia and Herzegovina the ratio remains high, at around 150%.

Overall, the banking systems' exposure to direct forex risk remains low in most of the countries analysed here. Proxied by the ratio of the net foreign exchange open position to capital, the risk level declined particularly in Bosnia and Herzegovina (from 11.8% in the first quarter of 2015 to -4.5% in the second quarter of 2016), although it seems premature to posit the durability of the fall in this country given the high volatility of the indicator. On the other hand, in the former Yugoslav Republic of Macedonia the ratio remains somewhat higher than in other countries (10.1% in the second quarter of 2016), while in Albania it edged up in the period under review (to 8.4% in the second quarter of 2016). In both countries, however, the ratios remained below regulatory limits set by domestic authorities.

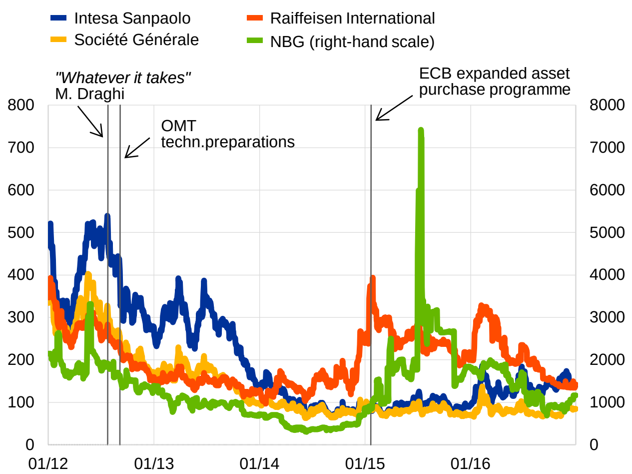
6 Funding conditions for parent banks and bank deleveraging

Funding conditions for parent banks whose subsidiaries have a strong presence in EU candidate and potential candidate countries remained heterogeneous in the review period (Chart 11). Throughout 2015, credit default swap (CDS) spreads remained mostly stable for banking groups originating in euro area countries that were not financially stressed. However, CDS spreads were elevated for banking groups subject to (potential) restructuring, as well as for banking groups that originated in Greece, edging up especially during the financial turmoil in summer 2015. In addition, the bout of global market turbulence in early 2016 also affected banks' debt markets, but funding conditions improved again in spring 2016.

Chart 11

CDS spreads of selected banks

(basis points)

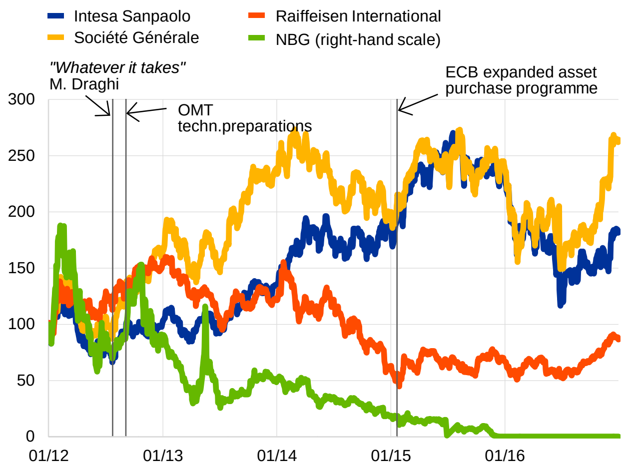


Sources: Bloomberg, Thomson Reuters and ECB staff calculations.

Chart 12

Equity prices of selected banks

(index: 2 January 2012 = 100)



Sources: Bloomberg, Thomson Reuters and ECB staff calculations.

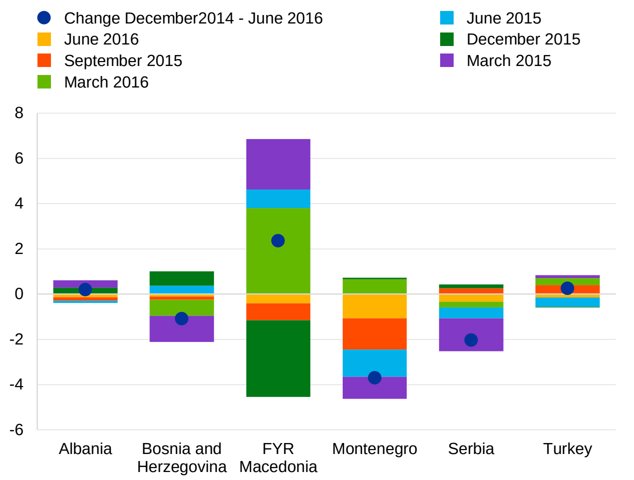
The current low growth and interest rate environment as well as concerns about asset quality have led to a re-evaluation of banks' profitability prospects, which are reflected in the decline in bank equity valuations for key cross-border banking groups (Chart 12). Market reactions have further been aggravated by uncertainty about the implementation of bail-in rules that came into full effect in 2016. In early 2016, equity valuations for key cross-border banking groups continued to trend down but showed some signs of recovery as of spring 2016.

During the period under review, deleveraging by parent banks whose subsidiaries are systemically important for EU candidate and potential candidate countries moderated further. From the fourth quarter of 2014 to the first quarter of 2016, from a cross-border ('locational') point of view BIS-reporting banks reduced, overall, their exposure vis-à-vis Montenegro, Serbia and Bosnia and

Herzegovina. This is consistent with rebalancing towards local deposit funding, as loan-to-deposit ratios decreased markedly for the same countries (see Section 4). In the cases of Albania and Turkey the exposure of foreign banks stayed broadly flat, whereas the former Yugoslav Republic of Macedonia registered an inflow of 2.4% of GDP during the period. Quarterly developments were rather erratic for some countries, while for others exposures remained remarkably stable. Most recently (in the first quarter of 2016), BIS-reporting banks increased their exposures vis-à-vis the former Yugoslav Republic of Macedonia, Montenegro and Turkey. Overall, compared with the period up to 2014, there are signs that deleveraging became more moderate over time.

Chart 13
Change in cross-border positions by BIS-reporting banks

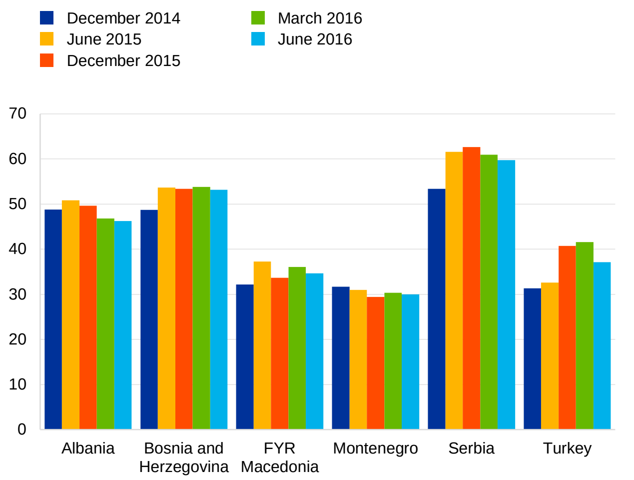
(as a percentage of full-year nominal GDP)



Notes: Quarter-on-quarter change in outstanding amounts for claims on all sectors. Data are foreign exchange and break-adjusted. The BIS banking statistics depict data provided by BIS-reporting countries (advanced economies and major emerging markets) over claims on all sectors in the counterparty country and may differ from time series registered by counterparty authorities.
Sources: BIS locational banking statistics, IMF World Economic Outlook and ECB staff calculations.

Chart 14
Consolidated claims by BIS-reporting banks

(as a percentage of full-year nominal GDP)



Notes: Outstanding amounts, claims on all sectors. The BIS banking statistics depict data provided by BIS-reporting countries (advanced economies and major emerging markets) over claims on all sectors in the counterparty country and may differ from time series registered by counterparty authorities.
Sources: BIS consolidated banking statistics, IMF World Economic Outlook and ECB staff calculations.

From a consolidated point of view, BIS-reporting banks' claims as a percentage of GDP increased in the period under review vis-à-vis most countries. Over 2015-2016, inflows were registered in Bosnia and Herzegovina, Serbia (for both especially in the first quarter of 2015), Turkey (especially in the second quarter of 2015) and (to a lesser extent) the former Yugoslav Republic of Macedonia. For Albania and Montenegro, consolidated claims declined (**Chart 14**), which for Montenegro is consistent with the locational statistics and for Albania with the negative credit growth observed (see Section 4).[15]

[15] The BIS Consolidated Banking Statistics capture the worldwide claims of banks headquartered in the BIS reporting countries, including claims of their foreign affiliates, but exclude positions between related offices. The Consolidated Foreign claims cover cross-border claims in all currencies of BIS reporting countries and local claims in foreign currency of their foreign affiliates, as well as the local claims in local currency of their foreign affiliates. BIS Locational Banking Statistics provide information about the geographical composition of banks' balance sheets since they provide the outstanding claims of banking offices located in BIS reporting countries (including positions between related offices).

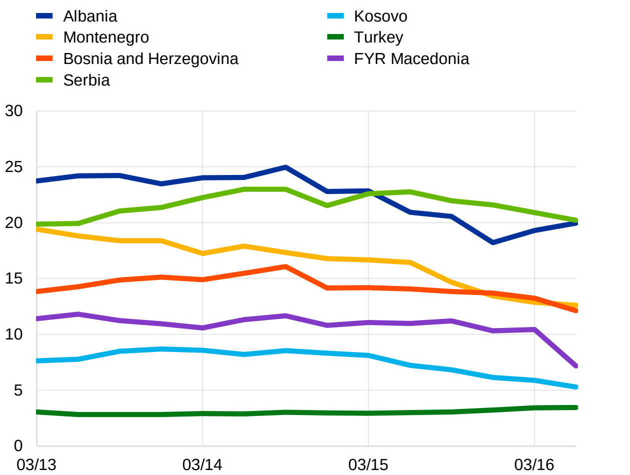
7 Asset quality

In many EU candidate and potential candidate countries the non-performing loan burden continues to remain sizeable, as lingering challenges to asset quality persist. The situation of banks in Albania and Serbia (where ratios of NPLs to total loans stood at around 20% and were concentrated predominantly in the corporate sector) is a particular source of concern (**Chart 15**). In this context, authorities in both countries have come up with comprehensive NPL resolution strategies aimed at tackling the high NPL burden in their respective jurisdictions (see the country annexes for more details). Furthermore, banks operating in Bosnia and Herzegovina and Montenegro still report an elevated level of impaired loans (with NPL ratios at around 12%). On the other hand, the stock of NPLs remained broadly contained in Kosovo and recorded a noticeable drop in the former Yugoslav Republic of Macedonia on the back of supervisory actions obliging banks to move off-balance non-performing loans that have been fully provisioned for more than two years (see country annex).

Chart 15

Non-performing loans to total loans

(as a percentage)

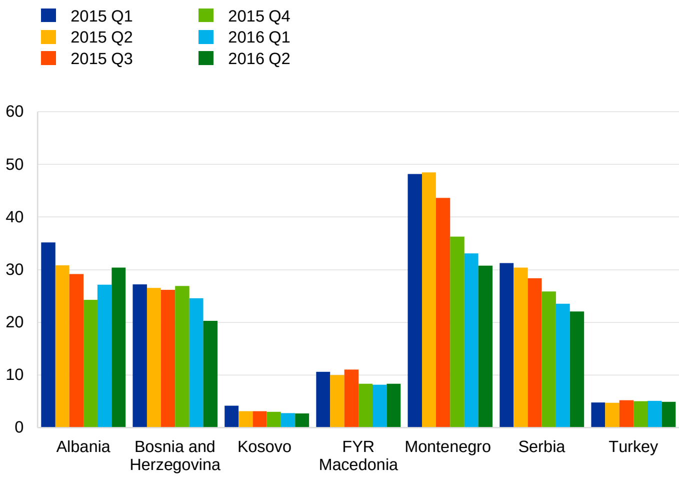


Note: National definitions of NPLs may differ across countries.
Source: National central banks.

Chart 16

Non-performing loans net of provision to capital

(as a percentage)



Note: In the case of the former Yugoslav Republic of Macedonia, data refer to non-financial sector NPLs net of provision for NPLs, and are divided by regulatory capital.
Source: National central banks.

Progress in reducing NPL levels remains slow in several countries, leading to increased supervisory efforts for improving NPL management practices. Notwithstanding structural impediments, such as inadequate insolvency and debt enforcement regimes[16], over the period under review aggregate NPL ratios recorded a moderate drop across the board, except in Turkey (where the ratio remained low and stable). An improvement in asset quality was driven by a decline in non-

---

[16] For further details, see also European Central Bank (2017), "Benchmarking institutional and structural indicators in EU candidate and potential candidate countries".

performing loan ratios in the retail and corporate sectors. In all countries, except Turkey, corporate debt overhangs are higher than those of the retail sector and tend to be associated with weaker investment by firms. At the same time, increases in NPLs in some EU candidate and potential candidate countries seemed to be clustered around several domestically owned banks and some foreign banking groups, which can be seen as a legacy of lax underwriting standards prior to the crisis. Taken together, the analysis appears to suggest that a significant part of the divergence in banks' asset quality performance across EU candidate and potential candidate countries could be attributed to corporate governance matters, including inadequate risk management practices and weak business models.

While banks' solvency positions improved somewhat over the past few quarters, the NPL overhang remains a drag on banks' profitability and weighs on their ability to extend new loans. The net value of the impaired loan portfolio is moderate in relation to capital and continued to improve in the period under review (**Chart 16**).

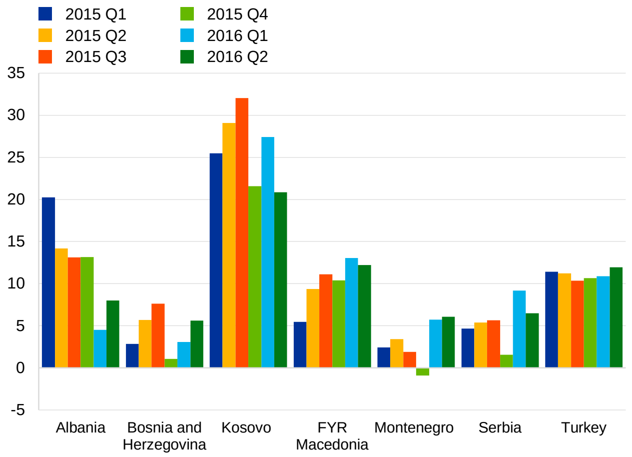
8 Bank profitability

Bank profitability continued to display heterogeneity across EU candidate and potential candidate countries in an often difficult business environment. In the period under review, banks' returns on equity remained subdued in Serbia, Montenegro and Bosnia and Herzegovina (**Chart 17**). At the same time, profitability improved markedly in the former Yugoslav Republic of Macedonia due to higher net-interest margins and better cost efficiency, and continued to be favourable in Kosovo and Turkey. In 2016, Albanian banks reported sharply declining profitability indicators mainly due to increasing loan loss provisions. Banks' return-on-assets ratios, which measure how efficiently banks utilise their asset base to generate earnings, confirm this diverse performance. The ratio was low in Albania, Bosnia and Herzegovina and Montenegro, remained high in Kosovo and Turkey, and showed signs of improvement in the former Yugoslav Republic of Macedonia and Serbia.[17] In the second quarter of 2016 the return on assets of banks in EU candidate and potential candidate countries ranged from 0.7% in Bosnia and Herzegovina to 2.6% in Kosovo (**Chart 18**).

Chart 17

Return on equity

(as a percentage)

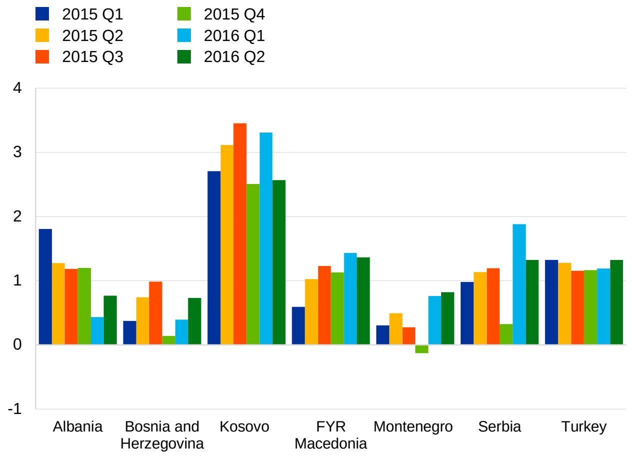


Note: The indicators are annualised for quarterly data in the case of the former Yugoslav Republic of Macedonia and Montenegro.
Source: National central banks.

Chart 18

Return on assets

(as a percentage)



Note: The indicators are annualised for quarterly data in the case of the former Yugoslav Republic of Macedonia and Montenegro.
Source: National central banks.

Overall, the structure of profits shows that banks' business models are built around traditional banking, as interest-related income remains the most important source of revenue generation. Revenues generated from lending are

[17] In Montenegro, banking sector profits were negatively affected in 2015 by the obligatory conversion of Swiss franc-denominated loans into euro at the exchange rate of the date the loan agreement was signed (this concerned, however, only one bank that had been providing these loans). Potential Swiss franc loan conversion also remains a source of risk to banks' profitability in Serbia, after a recent court ruling allowed the borrower to terminate the loan contract of a Swiss franc loan. However, this ruling is currently not binding for other similar cases.

the most important income source in EU candidate and potential candidate countries. However, a persistently high stock of impaired assets continues to tie up capital and to weigh on banks' ability to lend. Furthermore, in some countries, banks' net income was generally dampened by increased provisioning for NPLs. Gains from trading with securities and derivatives have only a minor importance in overall net income, except in the case of Turkey.

Positive earnings tend to be the main source of capital for banks in EU candidate and potential candidate countries. In this context, current and future levels of profitability ratios should be regarded as an important element in evaluating banks' resilience to adverse shocks. Continued weak profitability in some countries may reflect the challenges for banks to generate revenues in the sluggish credit environment, as well as indicating potential over-banking and inviable business models.

9 Conclusions

The financial systems of EU candidate and potential candidate countries are bank-based and foreign banks have developed a strong presence in the Western Balkan region. In the Western Balkans, foreign banks account for 70-90% of banking sector assets, with the highest shares recorded in Albania, Bosnia and Herzegovina and Kosovo. On the other hand, the Turkish banking sector is characterised by large domestically and publically owned banks. Many banks from outside the EU, including non-traditional banking players (e.g. investment funds), have entered the market recently and have tried to gain market share more proactively.

As regards funding and liquidity risks, on the aggregate level, banks in EU candidate and potential candidate countries have continued to display robust capital and liquidity buffers. However, significant pockets of vulnerability seem to be concentrated within a few domestically owned banks, some of which struggle to meet capital requirements while others have to rely on public support. Parent bank deleveraging has moderated further, against a background of a reduction in local subsidiaries' need for parent funding, which was mostly replaced with deposit funding from local sources. However, loan-to-deposit ratios remain elevated in the cases of Bosnia and Herzegovina and Turkey, implying lingering funding vulnerabilities.

Despite a decline in the share of foreign exchange loans in the total loan portfolio, foreign currency lending is still a widespread phenomenon in most EU candidate and potential candidate countries. From a stock perspective, the share of foreign currency denominated or indexed loans in total loans declined on the back of a broadly stable macroeconomic environment and subdued inflationary pressures. Partially, at the aggregate level, banks' exposure to exchange rate risk is mitigated by a high share of foreign currency deposits on their liabilities side, providing a more stable source of funding for foreign currency loans than wholesale markets (which are still quite shallow in the Western Balkans).

Nevertheless, the bulk of new lending in the Western Balkans was largely granted in (or indexed to) foreign currencies, further reinforcing indirect vulnerabilities that may materialise through unhedged borrowers in the event of nominal exchange rate depreciations. Authorities in some jurisdictions, notably Albania, the former Yugoslav Republic of Macedonia and Serbia, have introduced several measures aimed at fostering de-euroisation in order to reduce financial stability risks and to afford greater degrees of policy freedom for monetary authorities, but further sustained efforts are required.

With respect to credit risk, the progress in reducing the burden of non-performing loans on banks' balance sheets was rather slow on account of structural impediments to an effective NPL resolution. In particular, elevated levels of NPLs recorded in both Albania and Serbia give cause for concern, although both countries have started working on comprehensive NPL resolution strategies to tackle the high NPL burden. In addition, the former Yugoslav Republic of Macedonia introduced regulatory actions aimed at reducing the NPL overhang.

In many EU candidate and potential candidate counties profitability still remains subdued given the need to provision for outstanding NPLs and a lacklustre credit growth. Looking ahead, future profitability levels should be regarded as a significant input into assessing banks' resilience to shocks, since retained earnings are the main source of banks' capital.

Box 1
Key financial stability indicators in EU candidate and potential candidate countries

(as a percentage)	Regulatory Tier 1 capital to RWA	Return on assets	Return on equity	Liquid assets to total assets	Liquid assets to short-term liabilities	Interest margins to gross income	Loans to deposits	NPL net of provisions to capital	NPL to total gross loans	Forex loans to total loans	Net open position in forex to capital
Albania											
2015 Q1	13.1	1.8	20.3	33.2	42.3	78.5	55.3	35.2	22.8	62.2	4.2
2015 Q2	13.6	1.3	14.2	32.6	42.0	81.9	55.4	30.8	20.9	61.7	7.2
2015 Q3	13.6	1.2	13.1	33.2	43.3	82.7	54.3	29.2	20.6	61.2	8.0
2015 Q4	13.7	1.2	13.2	32.3	41.4	82.7	53.3	24.3	18.2	60.8	7.7
2016 Q1	13.8	0.4	4.5	31.8	40.7	80.8	53.1	27.1	19.3	60.6	6.1
2016 Q2	14.0	0.8	8.0	31.0	40.0	80.4	54.3	30.4	20.0	60.1	8.4
Bosnia and Herzegovina											
2015 Q1	14.5	0.4	2.8	24.7	43.3	61.5	109.4	27.2	14.2	62.4	11.8
2015 Q2	14.9	0.7	5.7	25.2	43.7	60.9	109.1	26.5	14.1	62.1	7.0
2015 Q3	14.8	1.0	7.6	25.8	43.4	60.7	105.8	26.2	13.8	62.2	8.5
2015 Q4	13.8	0.1	1.1	26.5	44.0	62.0	103.2	26.9	13.7	60.8	9.0
2016 Q1	13.9	0.4	3.1	25.0	41.6	61.6	103.6	24.6	13.2	59.8	5.0
2016 Q2	14.8	0.7	5.6	25.1	41.5	60.9	102.8	20.3	12.1	57.7	-4.5
Kosovo											
2015 Q1	15.4	2.7	25.5	32.5	41.0	76.7	73.9	4.2	8.1	0.3	1.5
2015 Q2	15.9	3.1	29.1	28.8	36.5	76.4	77.9	3.1	7.2	0.3	0.8
2015 Q3	16.0	3.5	32.0	30.2	38.0	76.2	75.0	3.1	6.8	0.3	0.9
2015 Q4	16.7	2.5	21.6	29.2	37.3	75.8	74.8	3.0	6.2	0.3	1.8
2016 Q1	17.3	3.3	27.4	28.8	37.0	74.0	77.7	2.8	5.9	0.3	0.9
2016 Q2	16.4	2.6	20.8	31.9	41.3	74.4	80.7	2.7	5.3	0.2	1.7
The former Yugoslav Republic of Macedonia											
2015 Q1	13.9	0.6	5.5	29.2	52.4	61.2	88.7	10.6[1)]	11.1	49.2[2)]	10.3
2015 Q2	14.6	1.0	9.4	27.9	49.9	62.5	90.3	10.0	11.0	47.7	8.5
2015 Q3	14.5	1.2	11.1	28.3	50.8	62.8	90.9	11.1	11.2	47.5	7.7
2015 Q4	13.9	1.1	10.4	28.2	49.2	62.8	90.6	8.3	10.3	46.5	11.1
2016 Q1	14.3	1.4	13.0	28.7	50.5	64.9	90.8	8.2	10.4	46.2	10.3
2016 Q2	14.1	1.4	12.2	26.0	46.3	62.6	92.3	8.3	7.2	46.0	10.1

(as a percentage)	Regulatory Tier 1 capital to RWA	Return on assets	Return on equity	Liquid assets to total assets	Liquid assets to short-term liabilities	Interest margins to gross income	Loans to deposits	NPL net of provisions to capital	NPL to total gross loans	Forex loans to total loans	Net open position in forex to capital
Montenegro											
2015 Q1	14.3	0.3	2.5	18.6	29.9	74.0	93.8	48.2	16.7	7.1	1.9
2015 Q2	14.7	0.5	3.4	20.5	32.1	70.8	92.1	48.5	16.5	7.6	2.5
2015 Q3	14.6	0.3	1.9	28.5	44.3	68.8	90.7	43.7	14.7	7.9	2.6
2015 Q4	14.2	-0.1	-0.9	24.8	40.1	68.3	85.3	36.3	13.4	8.2	2.3
2016 Q1	14.5	0.8	5.7	21.9	32.8	74.2	85.4	33.1	12.9	8.1	4.1
2016 Q2	15.5	0.8	6.1	22.6	34.4	70.7	85.0	30.8	12.6	6.4	2.9
Serbia											
2015 Q1	17.8	1.0	4.7	34.8	54.9	67.7	99.6	31.3	22.6	71.0	4.2
2015 Q2	18.9	1.1	5.4	35.6	54.7	67.9	98.6	30.4	22.8	70.8	4.6
2015 Q3	18.8	1.2	5.7	34.5	52.8	68.4	99.9	28.4	22.0	70.6	4.6
2015 Q4	18.8	0.3	1.6	34.3	52.0	68.7	95.4	25.9	21.6	71.9	4.4
2016 Q1	19.5	1.9	9.2	34.2	51.7	68.5	95.4	23.5	20.9	71.2	3.2
2016 Q2	19.6	1.3	6.5	33.8	50.3	68.8	94.9	22.1	20.2	70.3	3.6
Turkey											
2015 Q1	13.2	1.3	11.4	10.7[3)]	17.6[3)]	65.2	113.1[3)]	4.8	2.9	27.7	-1.2[3)]
2015 Q2	13.0	1.3	11.2	10.4	17.7	66.5	114.0	4.7	3.0	27.8	-0.7
2015 Q3	12.3	1.1	10.4	10.9	18.1	68.1	110.9	5.2	3.1	30.0	-1.3
2015 Q4	13.2	1.2	10.6	10.5	17.5	68.3	113.3	5.0	3.2	29.0	0.9
2016 Q1	13.3	1.2	10.9	10.9	18.0	69.3	112.6	5.1	3.4	28.5	0.9
2016 Q2	13.5	1.3	11.9	10.6	17.9	67.4	113.5	4.9	3.5	28.5	-0.5

1) Non-financial sector NPLs net of provision for NPLs, divided by regulatory capital.
2) Total foreign currency loans and foreign currency-indexed loans to the non-financial sector (as a percentage of total gross loans to the non-financial sector).
3) Development and investment banks are excluded.
Notes: National definitions of the selected indicators may differ across countries. Figures may differ compared with the last assessment due to data revisions. Foreign currency, in the case of Kosovo and Montenegro, refers to currencies other than the euro (given their unilateral euroisation regimes).
Source: National central banks.

10 Country annexes

10.1 Albania

The economic recovery strengthened in 2015 and 2016 despite fiscal consolidation under Albania's IMF programme. GDP growth picked up on account of domestic consumption and, more especially, investment (related to two large infrastructure projects), and progress was made on the structural reform agenda. Although substantial monetary easing decreased Albania's key policy rate to a historic low of 1.25%, inflation stayed below its target of 3%. The IMF programme includes a few financial sector benchmarks, of which two are linked to the NPL action plan that was drafted in cooperation with the IMF (the drafting of a new bankruptcy law, as well as amendments to the law on private bailiffs and civil procedures code). Furthermore, the benchmarks aim to improve the independence and regulatory framework of the Albanian Financial Supervisory Authority (AFSA) and to foster changes in the operations of the inter-agency Financial Sector Advisory Group.

Table 2

Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		16	16	16	16	16	16
of which foreign-owned		14	14	14	14	13	13
Total assets of financial system *(banks and non-bank financial institutions)*	Million euro	8,431	9,141	9,641	10,240	10,473	10,726
Total assets of banking sector	Million euro	7,982	8,544	8,800	9,243	9,431	9,640
Total assets of banking sector	Percentage of nominal GDP	86	89	91	93	92	88
Total assets of private banks	Million euro	7,982	8,544	8,800	9,243	9,431	9,640
of which assets of foreign-owned banks	Percentage of total assets	90	90	87	87	84	83
Total liabilities of private banks	Million euro	7,982	8,544	8,800	9,243	9,431	9,640
of which foreign liabilities	Percentage of total liabilities	55	56	56	56	57	58

Sources: Bank of Albania and IMF's World Economic Outlook.

The already low level of financial intermediation (one of the lowest levels in the region) has decreased further since the beginning of 2015. Lending to the private sector was negative throughout 2015 and 2016 (**Table 2**) on account of negative credit developments in the corporate sector (partly caused by NPL write-offs), while lending to the household sector was, on average, subdued but in positive territory. In terms of currency structure, the stock of outstanding credit to the private sector showed a slight trend of rebalancing towards local currency lending. Nevertheless, the share of foreign currency loans still amounts to 55% of total private sector loans, which poses a significant indirect credit risk caused by unhedged borrowers. Banks' holdings of government bonds remain another source of potential financial stability risk (**Table 3**; although only in the tail event of sovereign distress), with government bonds accounting for around 23% of total banking system assets in June 2016, mostly held in local currency.

Table 3

Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	14	15	19	20	20	22
share of corporate bonds	As a percentage of total local bond market	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
share of governement bonds	As a percentage of total local bond market	100	100	100	100	100	100
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' outstanding corporate bonds	Million euro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' holding of government securities	Million euro	2,131	2,112	2,215	2,318	2,099	2,222
Debt securities issued by corporations[1)]	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' credit to non-government residents[2)]	Percentage of GDP (eop)	39	38	37	37	35	35

1) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
2) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Source: Bank of Albania.

According to the most recent local lending survey, the high level of NPLs is one of the main factors that restrain credit supply. Currently, 20% of total loans are classified as non-performing (Table 5), with the bulk of NPLs being concentrated in the corporate sector. In the period under review, the ratio dropped slightly, after the adoption and partial implementation of a comprehensive NPL action plan by local authorities and the introduction of mandatory write-offs of loans that had spent three years in the "loss" category. The ratio of NPLs net of provisioning to capital also decreased, suggesting that the system became more resilient as provisioning improved.

Albania's banking sector is well capitalised and liquidity and funding risks seem to be contained. The lowest loan-to-deposit ratio in the region suggests low funding risks and ample funding sources in the period going forward. However, any potential shifts to riskier asset classes should be closely monitored with regard to their implications for financial stability. Albania's banking sector is characterised by high levels of capital and liquidity (**Table 4**), with capitalisation and liquidity ratios being well above the regulatory minimum. Profitability increased from end-2014 levels on account of low interest rate expenses, but weakened sharply subsequently in the first half of 2016.

Table 4

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	18.0	17.9	17.5	17.5	16.8	15.8	16.0	15.8	16.0	16.0	16.1
Regulatory Tier 1 capital to risk-weighted assets	14.9	14.8	14.5	14.5	13.8	13.1	13.6	13.6	13.7	13.8	14.0
Non-performing loans net of provisions to capital	40.2	41.8	40.5	43.8	38.3	35.2	30.8	29.2	24.3	27.1	30.4
Non-performing loans to total gross loans	23.5	24.0	24.1	25.0	22.8	22.8	20.9	20.6	18.2	19.3	20.0
of which in forex (NPLs denominated in forex to total NPLs)	69.0	70.2	70.3	71.2	71.2	71.6	71.1	69.0	67.7	68.7	68.3
of which in euro	60.4	61.9	61.9	62.6	62.8	62.3	61.4	59.1	57.7	57.9	56.8
of which in USD	8.5	8.3	8.4	8.5	8.4	9.3	9.7	9.9	10.0	10.8	11.5
of which in CHF	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Households: NPLs to total gross loans to households	16.7	17.4	17.3	17.5	16.5	16.6	14.9	14.6	13.3	13.2	12.0
Non-financial corporations: NPLs to total gross loans to non-financial corporations	27.7	28.2	28.3	29.5	26.7	26.8	24.7	24.3	21.4	23.1	24.4
Return on assets	0.5	1.5	0.9	0.9	0.9	1.8	1.3	1.2	1.2	0.4	0.8
Return on equity	6.4	17.2	10.4	11.0	10.5	20.3	14.2	13.1	13.2	4.5	8.0
Liquid assets to total assets	27.6	30.9	32.7	32.4	31.9	33.2	32.6	33.2	32.3	31.8	31.0
Liquid assets to short-term liabilities	34.7	39.1	41.4	41.2	40.4	42.3	42.0	43.3	41.4	40.7	40.0
Net open position in foreign exchange to regulatory capital	4.1	6.5	4.9	6.8	8.5	4.2	7.2	8.0	7.7	6.1	8.4
Capital to assets	8.4	8.4	8.3	8.5	8.6	9.0	9.1	9.2	9.5	9.4	9.6
Large exposures to capital	80.6	74.3	78.5	71.3	93.1	346.9	325.6	347.8	332.0	383.9	355.9
Gross asset position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross liability position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trading income to total income	2.3	1.2	1.1	1.0	1.2	2.6	1.4	1.3	1.4	1.4	2.1
Interest margins to gross income	87.9	82.2	82.1	82.2	84.5	78.5	81.9	82.7	82.7	80.8	80.4
Cost-to-income	52.4	50.4	50.8	49.7	49.7	45.3	46.0	47.2	48.1	48.1	47.7
Non-interest expenses to gross income	58.3	50.6	51.1	50.3	51.1	45.3	46.0	47.2	48.1	47.2	47.7
Foreign currency-denominated loans to foreign currency-denominated deposits	69.8	68.4	68.1	67.4	69.4	68.3	68.2	65.0	63.1	62.2	63.2
Foreign currency-denominated loans to total loans	63.0	62.6	62.1	62.1	62.4	62.2	61.7	61.2	60.8	60.6	60.1
Foreign currency-denominated liabilities to total liabilities	56.4	56.5	56.4	56.9	56.4	56.7	56.7	56.9	57.0	57.5	57.6
Net open position in equities to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt to gross domestic product	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt service and principal payments to income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Residential real estate prices (percentage change last 12 months)	9.6	0.0	-1.9	-4.2	1.3	-1.9	4.2	7.3	-2.9	12.0	5.9
Loan-to-deposit ratio	55.3	54.6	54.6	55.0	55.5	55.3	55.4	54.3	53.3	53.1	54.3
Loan-to-value ratios for housing loans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ratio of external liabilities to total liabilities of banks	23.1	24.0	24.3	24.5	24.2	25.1	25.4	25.8	24.7	26.0	25.9

Notes: Non-performing loans cover those loans that are classified in the last three categories of the credit classification: sub-standard, doubtful and loss. Their gross amount (principal plus interest) is the total of non-performing loans. Non-interest expenses to gross income covers administrative expenses to net interest and non-interest income.
Source: Bank of Albania.

10.2 Bosnia and Herzegovina

The pace of economic activity gathered momentum in 2015 and 2016, driven by a gradual pick-up in consumption and to a lesser extent by net exports. While public investment recovered, particularly in the energy sector, sluggish private investment has slowed potential output growth and private sector job creation. External imbalances have eased largely on account of improved external demand from key trading partners and lower oil prices. Nonetheless, net foreign direct investment flows continue to disappoint and remain focused primarily on energy and infrastructure projects. Under the Extended Fund Facility with the IMF, approved in September 2016, authorities have committed to preserve the currency board arrangement and harmonise banking legislations across the two entities.

Credit growth to the private sector was lacklustre amid weak demand for new loans and as banks continued to engage in balance sheet repair. The non-financial resident loan portfolio is almost equally distributed between loans to households (47%) and loans to enterprises (44%), with the remainder being exposure to the public sector. After a year of declines in the value of corporate loans, their annual growth turned positive in November 2015, mostly driven by an increase in standard long-term loans and revolving lines. The share of outstanding forex loans in total loans, although gradually decreasing, is still high and amounted to 57.7% in the second quarter of 2016 (**Table 7**).

Table 5

Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		29	28	27	26	26	25
of which foreign-owned		19	19	17	16	16	16
Total assets of financial system ***(banks and non-bank financial institutions)***	Million euro	12,471	12,552	12,928	13,319	13,865	13,920
Total assets of banking sector	Million euro	10,735	10,833	11,261	11,640	12,137	12,165
Total assets of banking sector	Percentage of nominal GDP	80	81	82	83	84	82
Total assets of private banks	Million euro	10,637	10,725	11,137	11,320	11,818	11,952
of which assets of foreign-owned banks	Percentage of total assets	93	93	91	87	87	87
Total liabilities of private banks	Million euro	10,637	10,725	11,137	11,320	11,818	11,952
of which foreign liabilities	Percentage of total liabilities	18	17	15	13	11	10

Sources: Central Bank of Bosnia and Herzegovina and IMF's World Economic Outlook.

Table 6
Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	2.7	3.0	3.8	4.2	4.3	4.4
share of corporate bonds	As a percentage of total local bond market	1.0	1.1	1.6	n.a.	0.8	0.7
share of governement bonds	As a percentage of total local bond market	99.0	98.9	98.4	n.a.	99.2	99.3
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	29.4	29.3	28.9	29.3	30.3	27.9
Banks' outstanding corporate bonds	Million euro	12.9	7.8	2.7	2.7	4.2	1.2
Banks' holding of government securities	Million euro	139.1	206.8	241.3	363.5	507.0	578.9
Debt securities issued by corporations[1)]	Percentage of GDP (eop)	0.0	0.0	n.a.	0.0	0.0	n.a.
Banks' credit to non-government residents[2)]	Percentage of GDP (eop)	56.4	57.6	56.0	54.8	54.4	54.7

1) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
2) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Notes: August 2016 in the case of banks' outstanding corporate bonds, holdings of government securities and credit to non-government residents.
Source: Central Bank of Bosnia and Herzegovina.

Significant pockets of vulnerability appear to exist within domestically owned banks. Since 2014, two domestically owned banks have failed to meet capital requirements, which resulted in the supervisory authorities revoking their operating licences. Nevertheless, the total number of banks operating in Bosnia and Herzegovina remains remarkably high relative to peer countries and stood at 25 in the second quarter of 2016, pointing to room for consolidation (**Table 5**).

The local stock market has contracted since the financial crisis and has not yet managed to recover fully on the back of sluggish economic growth. Further development of the local capital market is crucial in facilitating privatisation and enhancing transparency, as well as in reducing the dependency on external financing. The local bond market is dominated by government bonds, which are mainly held by the banking sector (**Table 6**). In the absence of an IMF-supported programme, authorities resorted to increased debt issuance in domestic markets to help bridge the financing shortfall that resulted in a substantial increase in banks' exposure to entity government bonds (i.e. those of the Republika Srpska and the Federation of Bosnia and Herzegovina).

The banking system appears to be adequately capitalised and liquidity indicators of the banking system as a whole continue to display resilience to shocks. The ratio of regulatory capital to risk-weighted assets stood at 15.8% in the second quarter of 2016. Importantly, NPLs net of provisions to capital in the period under review decreased by more than 25% and amounted to 20.3% in the second quarter of 2016, suggesting that the system's ability to cope with unexpected shocks improved (**Table 7**).

Table 7

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	17.8	17.3	17.3	17.0	16.3	16.1	16.3	16.2	14.9	14.9	15.8
Regulatory Tier 1 capital to risk-weighted assets	15.2	15.5	15.6	15.1	14.3	14.5	14.9	14.8	13.8	13.9	14.8
Non-performing loans net of provisions to capital	31.0	28.9	31.4	33.1	27.9	27.2	26.5	26.2	26.9	24.6	20.3
Non-performing loans to total gross loans	15.1	14.9	15.5	16.1	14.2	14.2	14.1	13.8	13.7	13.2	12.1
of which in forex (NPLs denominated in forex to total NPLs)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in euro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in USD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in CHF	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Households: NPLs to total gross loans to households	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-financial corporations: NPLs to total gross loans to non-financial corporations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Return on assets	-0.2	0.3	0.5	0.7	0.7	0.4	0.7	1.0	0.1	0.4	0.7
Return on equity	-1.4	2.3	3.5	5.3	5.2	2.8	5.7	7.6	1.1	3.1	5.6
Liquid assets to total assets	26.4	24.7	24.7	26.8	26.8	24.7	25.2	25.8	26.5	25.0	25.1
Liquid assets to short-term liabilities	46.2	43.6	43.4	47.0	46.1	43.3	43.7	43.4	44.0	41.6	41.5
Net open position in foreign exchange to regulatory capital	6.7	4.7	8.8	6.8	10.2	11.8	7.0	8.5	9.0	5.0	-4.5
Capital to assets	14.4	14.8	14.8	14.6	14.4	15.0	15.0	14.9	14.1	14.6	14.7
Large exposures to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross asset position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross liability position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trading income to total income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Interest margins to gross income	62.3	62.5	62.4	61.9	61.6	61.5	60.9	60.7	62.0	61.6	60.9
Cost-to-income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-interest expenses to gross income	101.2	78.1	83.0	83.0	85.7	72.2	72.8	75.9	94.5	70.6	73.2
Foreign currency-denominated loans to foreign currency-denominated deposits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Foreign currency-denominated loans to total loans	62.9	61.8	61.9	61.4	62.3	62.4	62.1	62.2	60.8	59.8	57.7
Foreign currency-denominated liabilities to total liabilities	63.8	63.2	62.7	61.8	62.7	62.5	62.6	61.8	60.3	59.6	59.3
Net open position in equities to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt to gross domestic product	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt service and principal payments to income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Residential real estate prices (percentage change last 12 months)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Loan-to-deposit ratio	114.7	114.9	115.8	109.7	108.2	109.4	109.1	105.8	103.2	103.6	102.8
Loan-to-value ratios for housing loans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ratio of external liabilities to total liabilities of banks	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Notes: Non-performing loans cover the last three categories of the credit classification, i.e. sub-standard (principal or interest is between 90 and 180 days overdue), doubtful (principal or interest is between 180 and 270 days overdue) and loss (principal or interest is 270 days or more overdue).
Source: Central Bank of Bosnia and Herzegovina.

10.3 Kosovo

Economic activity picked up in 2015 and 2016, mainly driven by private consumption and investment. In turn, consumption was mainly fuelled by easing credit conditions to households (following lower borrowing costs) and remittances. The current account deficit widened in 2015 and 2016, largely on account of the narrow export base and low international metal prices of Kosovo's main export product. Moreover, inward foreign direct investment experienced a considerable drop in 2016 compared with end-2015 figures. Within the framework of Kosovo's Stand-By Arrangement with the IMF, the central bank has developed a toolbox to further strengthen financial sector resilience, including an emergency liquidity assistance framework for banks and a macroprudential policy framework, as well as enhanced guidelines for the on-site and risk-based supervision of banks. Moreover, the IMF programme looks to supplement efforts already undertaken to reduce regulatory and judiciary bottlenecks to bank lending.

Table 8

Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		8	9	9	9	10	10
of which foreign-owned		6	7	7	7	8	8
Total assets of financial system *(banks and non-bank financial institutions)*	Million euro	3,483	3,829	4,231	4,542	4,904	5,075
Total assets of banking sector	Million euro	2,650	2,829	3,059	3,186	3,385	3,432
Total assets of banking sector	Percentage of nominal GDP	55.0	55.9	57.4	57.2	58.7	57.1
Total assets of private banks	Million euro	2,650	2,829	3,059	3,186	3,385	3,432
of which assets of foreign-owned banks	Percentage of total assets	88.0	88.3	88.8	89.7	89.4	89.1
Total liabilities of private banks	Million euro	2,650	2,829	3,059	3,186	3,385	3,432
of which foreign liabilities	Percentage of total liabilities	5.9	5.0	5.7	5.7	6.0	6.4

Sources: Central Bank of the Republic of Kosovo and IMF's World Economic Outlook.

The banking sector in Kosovo in the period under review exhibited a slight acceleration in asset growth in 2015 compared with 2014 (6.3% and 4.1% respectively), also on the back of a pick-up in lending to the private sector. The entry of Turkey's Ziraat bank in mid-2015 brought the total number of banks operating in Kosovo to ten, of which eight are foreign-owned (**Table 8**). Euro area-headquartered banks account for close to two-thirds of banking sector assets, even though increased competition (reflected in more dynamic lending activity and stronger asset growth, especially of the four banks operating in Kosovo with Turkish parent entities and the two domestic banks) has led to decreasing market shares of the German and Slovenian subsidiaries operating in the country.

In 2015 the government of Kosovo issued, for the first time, bonds with maturities of three and five years, with domestic banks being the main investors. Banks' holdings of domestic government and foreign debt obligations reached 13.2% of banking sector assets in the second quarter of 2016 (**Table 9**), marking a strong increase since 2012, when the first government Treasury bills were issued. While the weighted average yields came down in 2015-2016, the liquidity of the banking sector and the search for more profitable investment projects appear to be important drivers of the interest in domestic government securities.

Table 9

Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	n.a.	1.51	2.91	4.59	6.46	7.26
share of corporate bonds	As a percentage of total local bond market	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
share of governement bonds	As a percentage of total local bond market	n.a.	100	100	100	100	100
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' outstanding corporate bonds	Million euro	0	0	0	0	0	0
Banks' holding of government securities	Million euro	202	257	355	384	473	453
Debt securities issued by corporations[1)]	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' credit to non-government residents[2)]	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

1) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
2) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Source: Central Bank of the Republic of Kosovo.

Non-performing loans to total loans, whose level is already low in a regional context, continued to decrease during the period under review, on the back of improved asset quality, reduced volume of bad loans (partially due to an eased implementation of credit contracts through private bailiffs) and greater lending activity. The asset quality of non-financial corporations improved, while the ratio for households remained overall stable. Banks appear well provisioned with a low ratio of non-performing loans net of provisions to capital (2.7% in the second quarter of 2016).

Near-term challenges to financial stability stemming from the banking system appear contained. The sector is characterised by high capitalisation and liquidity buffers, while remaining vulnerable to external spillovers. The ratio of regulatory capital to risk-weighted assets stood at 18.7% in the second quarter of 2016, which is well above the minimum required ratio of 12% set by domestic authorities (**Table 10**). Bank profitability is relatively high (also compared with peers), even if income levels have been on a downward trend in the period under review. Return on assets and return on equity equalled 2.6% and 20.8% respectively in the second quarter of 2016 (after peaking at 3.5% and 32% in the third quarter of 2015). Banks' liquid assets amounted to 41.3% of short-term liabilities in the second quarter of 2016, which is well above the minimum level of 25% set by the central bank. Since mid-2016, commercial banks in Kosovo are being charged negative interest rates on excess reserves (above the minimum requirements of 10%) held with the central bank, which may impact banks' profitability going forward, potentially leading to increases in lending rates or riskier lending practices to compensate for losses in profitability. As a first reaction, banks in Kosovo are searching for new channels for their excess reserves, with the first signs of an uptick in lending (mainly to households) and in holdings of securities. The low interest environment also led many households to shift their deposits in favour of shorter-term maturities[18], which in turn resulted in an increased maturity mismatch of assets and liabilities in 2015. This poses problems to banks' liquidity management and limits developments in favour of longer-term lending.

[18] See also Central Bank of the Republic of Kosovo (2016), *Financial Stability Report,* No 9.

Table 10

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	16.7	17.4	17.4	18.1	17.8	18.7	19.0	18.4	19.0	19.7	18.7
Regulatory Tier 1 capital to risk-weighted assets	12.8	13.4	13.5	14.8	14.6	15.4	15.9	16.0	16.7	17.3	16.4
Non-performing loans net of provisions to capital	7.8	6.9	5.9	6.1	4.7	4.2	3.1	3.1	3.0	2.8	2.7
Non-performing loans to total gross loans	8.7	8.6	8.2	8.5	8.3	8.1	7.2	6.8	6.2	5.9	5.3
of which in forex (NPLs denominated in forex to total NPLs)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in euro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in USD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in CHF	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Households: NPLs to total gross loans to households	2.6	2.8	2.8	2.9	2.7	2.7	2.6	2.7	2.6	2.7	2.5
Non-financial corporations: NPLs to total gross loans to non-financial corporations	11.3	10.9	10.5	11.0	10.8	10.6	9.3	8.8	7.9	7.5	6.0[1)]
Return on assets	1.0	1.4	2.0	1.8	2.2	2.7	3.1	3.5	2.5	3.3	2.6
Return on equity	10.6	15.4	21.1	18.6	22.5	25.5	29.1	32.0	21.6	27.4	20.8
Liquid assets to total assets	36.6	33.6	32.4	33.4	32.8	32.5	28.8	30.2	29.2	28.8	31.9
Liquid assets to short-term liabilities	47.1	43.6	41.2	42.2	41.0	41.0	36.5	38.0	37.3	37.0	41.3
Net open position in foreign exchange to regulatory capital	2.3	n.a.	2.4	2.3	1.8	1.5	0.8	0.9	1.8	0.9	1.7
Capital to assets	9.7	10.1	10.1	10.5	10.8	11.3	11.7	11.7	12.2	12.7	12.3
Large exposures to capital	107.4	120.9	89.6	113.0	97.1	108.1	77.1	67.7	63.5	47.1	48.1
Gross asset position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross liability position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trading income to total income	0.7	n.a.	0.3	0.3	1.7	0.8	0.7	0.5	0.5	1.9	-2.0
Interest margins to gross income	73.1	74.5	74.5	75.8	75.9	76.7	76.4	76.2	75.8	74.0	74.4
Cost-to-income	89.6	83.5	77.9	74.4	75.4	66.6	62.5	61.3	60.3	70.8	66.8
Non-interest expenses to gross income	84.8	76.3	68.8	64.9	66.6	58.8	54.0	52.7	51.6	64.6	59.8
Foreign currency-denominated loans to foreign currency-denominated deposits[2)]	4.4	4.1	4.3	4.8	5.3	5.3	5.3	5.0	4.7	4.5	3.3
Foreign currency-denominated loans to total loans	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Foreign currency-denominated liabilities to total liabilities	4.6	4.7	4.7	4.3	3.6	3.7	3.7	3.8	3.7	3.9	4.0
Net open position in equities to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt to gross domestic product	11.5	11.0	11.6	11.8	12.3	11.7	12.3	12.4	13.0	12.9	13.8
Household debt service and principal payments to income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Residential real estate prices (percentage change last 12 months)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Loan-to-deposit ratio	73.7	75.1	78.1	73.7	74.2	73.9	77.9	75.0	74.8	77.7	80.7
Loan-to-value ratios for housing loans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ratio of external liabilities to total liabilities of banks	5.7	6.3	6.4	5.6	5.7	6.0	6.2	5.7	6.0	6.1	6.4

1) There is a methodological break in the calculation of NPL by sectors as of the second quarter of 2016, whereby off-balance sheet items are included in the breakdown of loans by sector and classification.
2) Foreign currency refers to currencies other than the euro (given the unilateral euroisation regime in Kosovo).
Notes: Non-performing loans cover loans having delinquency or default in excess of 90 days, which are classified in the categories doubtful and loss.
Source: Central Bank of the Republic of Kosovo.

10.4 The former Yugoslav Republic of Macedonia

Economic recovery continued in 2015 and 2016, notwithstanding a slowdown in GDP growth in 2016 related to political uncertainties. Consumption remained supported by robust credit growth and improving labour market conditions, while increasing foreign demand fuelled exports growth. However, investment growth remained subdued, despite robust foreign direct investment inflows. While the economic recovery is likely to continue, political risks constitute a downside risk to GDP growth going forward.

The banking sector's balance sheet in the former Yugoslav Republic of Macedonia contracted in the first half of 2016, following continued growth in 2015 (Table 11). The fall in assets in 2016 reflected a withdrawal of denar deposits from banks in April and May, related to the unstable political situation, which undermined public trust in the denar peg to the euro. Since June the situation has stabilised (also supported by the actions of the National Bank of the Republic of Macedonia), but deposits have not yet fully returned to banks.

Table 11
Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		17	16	16	15	15	15
of which foreign-owned		13	12	11	11	11	11
Total assets of financial system ***(banks and non-bank financial institutions)***	Million euro	6,078	6,485	6,857	7,497	8,014	n.a.
Total assets of banking sector	Million euro	5,385	5,738	6,007	6,511	6,878	6,751
Total assets of banking sector	Percentage of nominal GDP	71.3	75.6	73.6	76.2	75.6	72.0
Total assets of private banks	Million euro	5,219	5,538	5,776	6,265	6,602	6,493
of which assets of foreign-owned banks	Percentage of total assets	95.4	95.5	71.0	71.8	72.0	72.5
Total liabilities of private banks	Million euro	5,219	5,538	5,776	6,265	6,602	6,493
of which foreign liabilities[1)]	Percentage of total liabilities	8.2	8.2	7.3	6.6	5.4	5.5

1) Liabilities to non-residents.
Sources: National Bank of the Republic of Macedonia and IMF's World Economic Outlook.

Concentration in the banking sector remains relatively high. Three main players accounted for close to 60% of total assets in the banking sector; however, the market share of the two largest banks (Stopanska Banka and Komercijalna Banka) continued to shrink. Two large banks (Stopanska Banka and NLB Tutunska Banka) have remained exposed to potential spillovers from parent banks in Greece and Slovenia that are undergoing restructuring.

Local capital markets remain underdeveloped. In the period under review the local stock market and the local bond market shrank in terms of GDP, in the case of the latter partly due to the government policy of limiting denar-denominated bond issuance on local markets (**Table 12**). This policy helped to level off banks' exposures to sovereign debt at around 8% of assets, after previously doubling.

Table 12
Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	1.8	1.6	1.3	1.1	0.9	0.8
share of corporate bonds[1)]	As a percentage of total local bond market	0	0	0	0	0	0
share of governement bonds	As a percentage of total local bond market	100	100	100	100	100	100
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	26	24	20	20	18	17
Banks' outstanding corporate bonds[1)]	Million euro	0	0	0	0	0	0
Banks' holding of government securities	Million euro	268	487	601	513	584	540
Debt securities issued by corporations[2)]	Percentage of GDP (eop)	0	0	0	0	0	0
Banks' credit to non-government residents[3)]	Percentage of GDP (eop)	43.5	45.7	45.3	47.6	49.0	46.6

1) Bonds issued by banks.
2) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
3) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Source: National Bank of the Republic of Macedonia.

The banking sector remained sound and solvency and liquidity risks appear to be low. Banks continue to exhibit robust capital buffers. Regulatory Tier 1 capital to risk-weighted assets remained at 14.2% on average (well above the 8% regulatory minimum CAR set by domestic supervisory authorities; **Table 13**) and it increased among the weakest players in the period under review. Liquidity in the banking sector remains ample, notwithstanding a gradual decline in the ratios of liquid assets to total assets and liquid assets to short-term liabilities since 2014. Profitability improved considerably and interest margins remained at comfortable levels. Banks continue to fund credit activity predominantly with domestic deposits (the loan-to-deposit ratio hovers around 90%) and their exposure to foreign funding remained relatively low (below 10% of total liabilities).

Notwithstanding these positive traits, several factors seem to pose a risk to the stability of the banking sector going forward. First, credit risks, as proxied by the non-performing loans ratio, remain elevated and despite several steps taken by the authorities to foster NPL resolution, banks still remain reluctant to write off uncollected claims. Most recently, a new measure obliged banks to write off all NPLs that had been fully provisioned for at least two years. Although this action led to a considerable fall in the ratio of NPLs on balance sheets in the second quarter of 2016 (by about one-third), banks are still able to collect the claims. This implies that the underlying structural problem (i.e. debtors' restructuring) remained unaddressed by this measure. The credit risks related to the sizeable NPL burden and its potential impact on banks' profitability is mitigated by robust provisioning, with the ratio of NPLs net of provisions to capital remaining low, at around 8%.

Second, foreign currency lending to unhedged borrowers remains widespread, which poses tail risks to financial stability in the case of exchange rate devaluations/depreciations and reduces the degree of freedom on the side of monetary policy. In the period under review the de-euroisation of loans gradually continued – also on the back of central bank efforts – and the share of foreign currency loans remains lower than among regional peers with a domestic currency.

At the same time, foreign currency loans still amount to almost half of total outstanding loans and about two-fifths of new lending, which points to room for further policy action to buttress progress in de-euroisation. Funding risks related to foreign currency lending appear to be safeguarded by a healthy level of domestic foreign currency deposits and, in general, the currency mismatch in assets and liabilities (as measured by banks' net open position to foreign currency to capital) is well below the limit set by authorities, albeit somewhat higher than in peer countries.

Third, there are risks related to restructuring in the parent banking groups and possible spillovers to subsidiaries in the former Yugoslav Republic of Macedonia that are among the three biggest banks in the country. However, so far these spillovers seemed to be limited.

Table 13

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	16.8	16.7	16.9	16.5	15.7	16.0	16.2	16.1	15.5	15.8	15.6
Regulatory Tier 1 capital to risk-weighted assets	14.4	14.3	14.7	14.2	13.7	13.9	14.6	14.5	13.9	14.3	14.1
Non-performing loans net of provisions to capital[1)]	11.6	10.8	13.2	13.6	11.5	10.6	10.0	11.1	8.3	8.2	8.3
Non-performing loans to total gross loans[2)]	10.9	10.6	11.3	11.7	10.8	11.1	11.0	11.2	10.3	10.4	7.2
of which in forex (NPLs denominated in FX to total NPLs)[3)]	55.2	55.8	53.8	52.5	52.5	51.7	50.6	48.3	47.8	46.4	45.9
of which in euro	53.3	53.6	51.8	50.6	50.7	49.8	48.8	46.6	46.2	44.9	45.6
of which in USD	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.0
of which in CHF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0
of which in other currencies	1.2	1.5	1.3	1.2	1.2	1.2	1.1	1.1	0.9	0.9	0.3
Households: NPLs to total gross loans to households	6.4	6.3	6.2	6.0	5.9	5.8	5.6	5.5	5.2	5.0	2.8
Non-financial corporations: NPLs to total gross loans to non-financial corporations	15.2	14.7	16.0	16.9	15.3	15.9	16.0	16.6	15.2	15.7	11.6
Return on assets	0.6	0.4	0.6	0.9	0.8	0.6	1.0	1.2	1.1	1.4	1.4
Return on equity	5.7	4.0	5.4	7.6	7.4	5.5	9.4	11.1	10.4	13.0	12.2
Liquid assets to total assets[4)]	31.2	31.5	30.5	31.6	29.8	29.2	27.9	28.3	28.2	28.7	26.0
Liquid assets to short-term liabilities[4)]	54.5	55.5	53.9	56.0	53.2	52.4	49.9	50.8	49.2	50.5	46.3
Net open position in foreign exchange to regulatory capital	15.6	11.0	9.7	14.0	17.5	10.3	8.5	7.7	11.1	10.3	10.1
Capital to assets	11.3	11.2	11.5	11.2	10.8	10.9	11.0	11.3	10.8	11.1	11.5
Large exposures to capital	188.5	200.0	193.7	197.6	233.1	211.6	202.9	193.5	212.4	201.1	175.5
Gross asset position in financial derivatives to capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross liability position in financial derivatives to capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trading income to total income	0.5	-0.7	-0.4	-0.2	0.1	-0.1	-0.1	0.1	0.0	-0.2	0.1
Interest margins to gross income	62.2	65.0	64.0	64.5	63.5	61.2	62.5	62.8	62.8	64.9	62.6
Cost-to-income	60.6	58.7	58.6	56.2	55.5	50.8	51.9	51.5	51.6	50.1	51.7
Non-interest expenses to gross income	62.8	60.9	61.0	58.7	58.1	53.6	54.8	54.6	54.7	53.2	54.8
Foreign currency-denominated loans to foreign currency-denominated deposits	102.8	101.2	102.1	99.9	101.7	99.3	100.1	99.6	99.3	97.8	96.2
Foreign currency-denominated loans to total loans	52.7	52.0	50.8	50.5	49.4	49.2	47.7	47.5	46.5	46.2	46.0
Foreign currency-denominated liabilities to total liabilities	50.2	49.3	49.2	48.7	47.2	47.6	47.3	47.4	46.4	46.3	47.6
Net open position in equities to capital	1.7	1.7	1.7	1.8	2.6	3.4	2.6	2.6	2.6	2.6	2.6
Household debt to gross domestic product	19.6	n.a.	n.a.	n.a.	21.0	n.a.	n.a.	n.a.	22.4	n.a.	n.a.
Household debt service and principal payments to income	8.7	n.a.	n.a.	n.a.	8.9	n.a.	n.a.	n.a.	8.0	n.a.	n.a.
Residential real estate prices (percentage change last 12 months)	-6.2	n.a.	n.a.	n.a.	-0.7	n.a.	n.a.	n.a.	-0.9	n.a.	n.a.
Loan-to-deposit ratio	88.8	88.1	90.0	88.4	88.2	88.7	90.3	90.9	90.6	90.8	92.3
Loan-to-value ratios for housing loans	70.7	72.3	74.1	75.6	81.7	76.5	80.7	82.4	79.1	79.6	57.5
Ratio of external liabilities to total liabilities of banks	11.6	11.3	11.4	10.7	10.8	10.5	11.4	10.3	9.8	9.4	9.7

1) Non-financial sector NPLs net of provision for NPLs, divided by regulatory capital.
2) The amount of non-performing loans to gross loans refers to non-performing loans/gross loans to the non-financial and financial sectors.
3) Non-performing loans in foreign currency and foreign currency-indexed non-performing loans to the non-financial sector.
4) Liquid assets refer to cash, balances and deposits with the National Bank of the Republic of Macedonia, placements in short-term instruments issued by the state, NBRM bills and correspondent accounts, sight deposits, overnight deposits and short-term deposits with foreign banks. Short-term liabilities and total assets do not include interbank positions.
Notes: Non-performing loans are loans classified in the D and E risk categories or loans that are past-due for more than 90 days and meet a certain materiality threshold.
Source: National Bank of the Republic of Macedonia.

10.5 Montenegro

GDP growth recovered in 2015 and remained solid in 2016, driven by public sector investment and robust tourism sector growth. Notwithstanding these traits, growing government expenditure on infrastructure projects, as well as on social benefits and wages in the public sector, led to a rapid increase in public debt, raising questions about its sustainability. At the same time, increased public expenditures contributed to high external imbalances.

Since 2013, the Montenegrin banking system has been recovering from the process of balance sheet adjustment following the financial crisis. In 2015 total banking assets increased by 10.7% and continued to grow in the first half of 2016, albeit more slowly (by 1.2%). However, lending growth to the private sector remained sluggish, largely on the back of the tight credit conditions prevailing in the market and high private sector indebtedness.

Table 14

Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		11	11	11	12	14	15
of which foreign-owned		9	9	9	7	9	9
Total assets of financial system *(banks and non-bank financial institutions)*	Million euro	2,854	2,844	2,994	3,175	3,516	3,566
Total assets of banking sector	Million euro	2,810	2,808	2,959	3,136	3,472	3,512
Total assets of banking sector	Percentage of nominal GDP	86.1	88.3	88.0	90.7	96.6	92.1
Total assets of private banks	Million euro	2,810	2,808	2,959	3,136	3,472	3,512
of which assets of foreign-owned banks	Percentage of total assets	89.7	90.0	90.2	79.5	77.6	76.6
Total liabilities of private banks	Million euro	2,810	2,808	2,959	3,136	3,472	3,512
of which foreign liabilities	Percentage of total liabilities	18.2	13.0	9.8	6.2	5.1	5.4

Sources: Central Bank of Montenegro and IMF's World Economic Outlook.

In the period under review, the number of banks operating in the economy increased further to fifteen (from 12 in 2014; **Table 14),** which seems to be a relatively high number given the size of the economy. The banking system remains mostly foreign-owned and one of the biggest banks (NLB) remained exposed to risks related to potential spillovers from the parent bank, which was undergoing restructuring. The concentration in the banking sector remains moderate, with five players holding shares above 10%. The banking sector also includes several very small banks, following entry into the market of new players.

The local bond market remains underdeveloped and its size in terms of GDP was declining in the period under review (Table 15). The bond market consists mostly of government securities and plays a minor role in private sector funding. The size of the stock market seems to remain relatively high in comparison with peer countries, although it exhibits a very low turnover. In the period under review banks' exposure to the sovereign (through securities and direct lending) increased considerably, from 6.8% of total banking sector assets in 2014 to 10.7% in the second quarter of 2016. While this level is still moderate, it has to be seen in the context of the significant fiscal challenges the country is facing.

Table 15

Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	3.6	7.4	7.6	8.1	5.4	4.8
share of corporate bonds	As a percentage of total local bond market	17.1	8.1	5.9	4.3	12.7	5.5
share of governement bonds	As a percentage of total local bond market	83.0	91.9	94.1	95.7	87.3	94.5
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	83.8	91.2	84.6	85.6	82.2	75.1
Banks' outstanding corporate bonds	Million euro	19.0	19.0	15.0	15.0	25.0	10.0
Banks' holding of government securities	Million euro	76.2	86.2	94.4	138.6	287.0	340.8
Debt securities issued by corporations[1)]	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' credit to non-government residents[2)]	Percentage of GDP (eop)	55.8	51.6	53.2	51.3	49.9	50.0

1) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
2) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Source: Central Bank of Montenegro.

Banking sector performance improved in the period under review. Banks continue to exhibit robust capital buffers (Table 16), with regulatory capital to risk-weighted assets remaining well above the regulatory minimum of 10% (at 16.7% in the second quarter of 2016). Moreover, banks' liquidity has increased in recent years, as measured both by liquid assets to total assets and liquid assets to short-term liabilities ratios. In the period under review, banks' funding further shifted from external sources towards more stable domestic deposits, which currently more than cover outstanding lending, implying that funding risks seem to be contained. Banking sector profitability showed some incipient signs of recovery in 2016, although this trend needs to be verified in the period ahead.

Notwithstanding these positive developments, a couple of challenges to the stability of the banking sector remain going forward. Above all, the NPL ratio remained elevated (despite its significant fall in previous years to 12.6% in the second quarter of 2016, supported by transfers of NPLs to factoring companies set up by parent banks), which largely reflects the weaknesses of the legal and regulatory environment for collateral execution. In addition, provisioning – notwithstanding a visible further improvement in the period under review – seems to have remained insufficient, with the ratio of NPLs net of provisions to capital at 30.8% in the second quarter of 2016 (accounted according to IAS 39 standards). Overall, credit risks related to the persistently high stock of NPLs are likely to continue to impinge on banking sector profitability going forward. Another risk to the banking sector is related to possible spillovers from parent banking group restructuring on domestic subsidiaries that are systemically important. However, so far these spillovers seemed to be limited.

Table 16

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	14.4	15.1	15.8	16.2	16.2	15.9	15.8	16.0	15.5	15.7	16.7
Regulatory Tier 1 capital to risk-weighted assets	13.0	13.6	14.3	14.6	14.4	14.3	14.7	14.6	14.2	14.5	15.5
Non-performing loans net of provisions to capital	62.4	53.5	56.0	54.5	49.3	48.2	48.5	43.7	36.3	33.1	30.8
Non-performing loans to total gross loans	18.4	17.2	17.9	17.3	16.8	16.7	16.5	14.7	13.4	12.9	12.6
of which in forex (NPLs denominated in FX to total NPLs)[1]	0.7	1.0	1.1	1.1	1.2	1.6	1.7	1.7	1.7	1.5	1.3
of which in euro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in USD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in CHF	0.7	1.0	1.1	1.1	1.2	1.6	1.7	1.7	1.7	1.5	1.3
Households: NPLs to total gross loans to households	11.8	11.3	11.6	11.3	10.7	10.6	10.5	9.7	8.8	8.8	8.4
Non-financial corporations: NPLs to total gross loans to non-financial corporations[2]	34.2	31.7	31.9	33.8	30.7	28.0	29.2	28.0	24.2	22.6	21.3
Return on assets	0.1	1.3	1.0	0.9	0.8	0.3	0.5	0.3	-0.1	0.8	0.8
Return on equity	0.5	9.3	6.8	6.2	5.4	2.5	3.4	1.9	-0.9	5.7	6.1
Liquid assets to total assets	20.0	18.0	18.8	23.2	22.2	18.6	20.5	28.5	24.8	21.9	22.6
Liquid assets to short-term liabilities	32.2	29.0	29.6	36.1	35.7	29.9	32.1	44.3	40.1	32.8	34.4
Net open position in foreign exchange to regulatory capital	0.6	0.9	1.5	0.7	0.7	1.9	2.5	2.6	2.3	4.1	2.9
Capital to assets	13.4	14.2	14.2	14.2	14.2	14.2	14.1	13.3	13.3	13.6	13.9
Large exposures to capital	110.6	103.8	91.3	100.7	98.9	106.7	106.9	126.4	109.8	107.7	110.9
Gross asset position in financial derivatives to capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross liability position in financial derivatives to capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Trading income to total income	1.8	1.6	2.8	2.8	2.9	4.1	2.8	1.7	3.0	2.4	2.8
Interest margins to gross income	68.2	70.9	71.2	70.7	70.3	74.0	70.8	68.8	68.3	74.2	70.7
Cost-to-income	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Non-interest expenses to gross income	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Foreign currency-denominated loans to foreign currency-denominated deposits	113.5	91.4	104.2	90.3	91.7	118.9	111.8	111.8	101.5	76.7	94.1
Foreign currency-denominated loans to total loans	3.9	3.4	3.6	3.1	3.9	7.1	7.6	7.9	8.2	8.1	6.4
Foreign currency-denominated liabilities to total liabilities	4.3	4.6	4.3	4.2	4.7	6.2	6.8	6.7	6.9	7.1	6.7
Net open position in equities to capital	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Household debt to gross domestic product	26.2	25.7	25.8	25.8	25.8	25.2	25.5	25.4	25.6	24.9	25.7
Household debt service and principal payments to income	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Residential real estate prices (percentage change last 12 months)	n.a.	57.2	n.a.	56.0	n.a.	54.2	n.a.	55.3	n.a.	56.8	n.a.
Loan-to-deposit ratio	106.1	105.6	102.3	99.9	95.1	93.8	92.1	90.7	85.3	85.4	85.0
Loan-to-value ratios for housing loans	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Ratio of external liabilities to total liabilities of banks	24.4	24.6	23.7	22.3	21.9	22.2	22.0	21.3	21.4	21.8	21.3

1) Foreign currency refers to currencies other than the euro (given the unilateral euroisation regime in Montenegro).
2) Includes public non-financial corporations.
Notes: Non-performing loans cover loans and matured receivables classified in sub-standard, doubtful and loss categories (see the CBCG's Decision on Minimum Standards for Credit Risk Management in Banks for further information).
Source: Central Bank of Montenegro.

10.6 Serbia

Under the Stand-By Arrangement with the IMF Serbia achieved a considerable structural fiscal adjustment in 2015 and 2016, while GDP growth remained subdued. Fiscal consolidation enabled the National Bank of Serbia to lower its key policy rate in several steps during 2015 and 2016 to a historic low of 4%. Despite monetary policy easing, inflation stayed below the lower bound of the target band of 4% +/- 1.5 percentage points. The IMF programme includes a number of financial sector benchmarks, such as special diagnostic studies of significant banks and one insurance company, as well as several measures for the resolution of NPLs and initiatives to enhance the Serbian regulatory framework. Furthermore, a reform of Serbia's state-owned banks is envisaged under the programme.

Lending to the private sector remained subdued in the period under review. Credit growth to the private sector was positive but remained overall subdued (**Table 17**), especially in the corporate sector, on account of the maturing of a large proportion of loans approved in 2014 under the subsidised corporate lending scheme. The share of loans denominated in or indexed to foreign currencies in total loans to the private sector stayed roughly the same, at almost 70%, which is the highest share in the region and poses a significant indirect credit risk to the financial sector in the case of unhedged borrowers. However, since the beginning of 2016, there have been some signs of a recovery in local currency lending to the corporate sector, while for the household sector the share of local currency lending to total lending has been increasing for four years.

Table 17

Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		33	32	30	29	30	30
of which foreign-owned		21	21	21	21	23	23
Total assets of financial system ***(banks and non-bank financial institutions)***	Million euro	27,411	27,331	26,877	26,671	27,369	27,939
Total assets of banking sector	Million euro	25,324	25,322	24,827	24,545	25,059	25,484
Total assets of banking sector	Percentage of nominal GDP	77.8	80.3	73.4	76.0	76.7	75.6
Total assets of private banks	Million euro	20,812	20,734	20,171	19,826	20,541	20,786
of which assets of foreign-owned banks	Percentage of total assets	90.2	91.8	91.5	92.2	92.8	93.0
Total liabilities of private banks	Million euro	20,812	20,734	20,171	19,826	20,541	20,786
of which foreign liabilities	Percentage of total liabilities	23.9	23.1	19.8	15.8	14.3	12.2

Sources: National Bank of Serbia and IMF's World Economic Outlook.

The size of the local bond market decreased in 2015. Fiscal consolidation measures undertaken by the government mitigated borrowing needs and thus led to less government issuances than in previous years (**Table 18**). At the same time, banks' holdings of government securities further increased in the period under review and account for around 19% of total banking sector assets, representing a source of potential financial stability risk in the tail event of sovereign distress. The share of corporate bonds in the market remained negligible. The amount outstanding in the local stock market continued the downward sloping trend of past years.

Weak asset quality, as signalled by a high share of NPLs, constitutes a key risk, which the authorities tackled by introducing a wide-spread NPL resolution strategy containing measures both for the government[19] and for the National Bank of Serbia[20] (**Table 19**). Following its introduction, the ratio of NPLs to total loans started to decline but still remains elevated (over 20%). Funding risks remained mitigated on account of a decreasing loan to deposit ratio, which reflects an increasing reliance on domestic sources of funding. Serbia's banking sector is well capitalised and liquid, with capitalisation and liquidity ratios being well above the regulatory minima. The special diagnostic studies (similar to the ECB's asset quality review) undertaken in the context of Serbia's IMF programme confirmed that all participating banks (14 out of 30 banks in operation) are sufficiently capitalised. The profitability of the banking sector increased in 2015 and the first half of 2016, but indirect write-offs of loans are a burden and profitability remains below the regional average.

Table 18

Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	4.1	3.7	2.8	2.1	1.1	n.a.
share of corporate bonds	As a percentage of total local bond market	0.0	1.1	1.4	2.1	0.3	n.a.
share of governement bonds	As a percentage of total local bond market	100.0	98.9	98.6	97.9	99.7	n.a.
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	19.9	17.9	17.1	18.3	16.1	14.5
Banks' outstanding corporate bonds	Million euro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' holding of government securities	Million euro	1,453	2,177	2,673	3,573	4,327	4,909
Debt securities issued by corporations[1)]	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Banks' credit to non-government residents[2)]	Percentage of GDP (eop)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

1) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
2) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Source: National Bank of Serbia.

In addition, profitability is quite heterogeneous within the banking sector, as state-owned banks (currently there exist two large and four minor state-owned banks) cumulatively accounted for losses in 2015.

[19] For details please see the strategy document and the action plan for the government.

[20] See also the action plan for implementation of the NPL resolution strategy of the central bank.

Table 19

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	20.9	21.2	20.4	19.4	20.0	20.3	21.4	21.2	20.9	21.5	21.6
Regulatory Tier 1 capital to risk-weighted assets	19.3	18.4	17.6	16.7	17.6	17.8	18.9	18.8	18.8	19.5	19.6
Non-performing loans net of provisions to capital	32.7	32.4	34.0	34.0	31.0	31.3	30.4	28.4	25.9	23.5	22.1
Non-performing loans to total gross loans	21.4	22.3	23.0	23.0	21.5	22.6	22.8	22.0	21.6	20.9	20.2
of which in forex (NPLs denominated in FX to total NPLs)	72.9	73.6	74.9	75.3	76.3	76.4	75.7	75.8	74.4	73.3	73.2
of which in euro	65.9	66.5	67.7	67.9	68.4	67.6	66.1	66.5	65.1	64.1	64.2
of which in USD	0.4	0.4	0.4	0.5	0.4	0.6	0.5	0.5	0.5	0.5	0.4
of which in CHF	6.5	6.5	6.7	6.8	7.3	8.1	8.9	8.6	8.6	8.5	8.4
Households: NPLs to total gross loans to households	10.8	11.0	11.5	11.4	11.4	11.8	12.3	12.0	11.7	11.5	11.1
Non-financial corporations: NPLs to total gross loans to non-financial corporations[1)]	24.5	26.5	27.4	27.3	24.6	25.6	25.8	24.1	21.7	20.8	19.6
Return on assets	-0.1	1.2	1.1	1.0	0.1	1.0	1.1	1.2	0.3	1.9	1.3
Return on equity	-0.4	5.4	5.0	4.6	0.6	4.7	5.4	5.7	1.6	9.2	6.5
Liquid assets to total assets	38.5	38.8	38.0	37.3	35.6	34.8	35.6	34.5	34.3	34.2	33.8
Liquid assets to short-term liabilities	62.2	62.9	61.3	59.5	56.3	54.9	54.7	52.8	52.0	51.7	50.3
Net open position in foreign exchange to regulatory capital	4.4	3.6	2.8	3.2	3.9	4.2	4.6	4.6	4.4	3.2	3.6
Capital to assets	20.9	21.4	21.4	20.8	20.7	21.2	21.2	21.4	20.3	20.7	20.5
Large exposures to capital	90.4	85.6	94.5	105.5	130.5	130.4	113.8	116.3	116.1	110.0	108.7
Gross asset position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross liability position in financial derivatives to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trading income to total income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Interest margins to gross income	69.2	68.8	68.6	68.0	68.7	67.7	67.9	68.4	68.7	68.5	68.8
Cost-to-income	66.1	63.5	64.3	64.3	64.5	61.0	61.2	61.6	63.4	63.6	64.4
Non-interest expenses to gross income	69.4	63.8	64.5	65.4	68.4	63.0	62.5	63.4	65.6	65.1	66.3
Foreign currency-denominated loans to foreign currency-denominated deposits	105.3	104.4	102.0	98.0	95.9	96.6	96.2	98.3	97.6	95.1	94.1
Foreign currency-denominated loans to total loans	70.9	72.0	70.0	69.9	70.0	71.0	70.8	70.6	71.9	71.2	70.3
Foreign currency-denominated liabilities to total liabilities	76.7	77.5	76.2	75.8	74.5	75.3	74.3	73.5	72.4	73.2	71.9
Net open position in equities to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt to gross domestic product	15.7	15.7	16.0	16.6	17.0	17.2	17.4	17.3	17.5	17.7	18.2
Household debt service and principal payments to income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Residential real estate prices (percentage change last 12 months)	-1.3	-5.6	-7.6	-5.7	-4.7	-5.8	-3.0	-5.3	-0.6	5.4	0.2
Loan-to-deposit ratio	108.9	108.3	106.8	102.5	98.8	99.6	98.6	99.9	95.4	95.4	94.9
Loan-to-value ratios for housing loans	65.9	66.8	66.9	67.2	65.8	67.5	68.2	67.2	68.5	68.3	70.4
Ratio of external liabilities to total liabilities of banks	79.1	78.6	78.6	79.2	79.3	78.8	78.8	78.6	79.7	79.3	79.5

1) Includes public non-financial corporations.
Notes: Non-performing loans cover the total outstanding debt under an individual loan (including the amount of arrears) under the following conditions:
(i) where the payment of principal or interest is (within the meaning of the decision on the classification of balance sheet assets and off-balance sheet items) over 90 days past-due;
(ii) where at least 90 days of interest payments have been added to the loan balance, capitalised, refinanced or delayed by agreement;
(iii) where payments are less than 90 days overdue but the bank has assessed that the borrower's repayment ability has deteriorated and doubts that the payments will be made in full.
Source: National Bank of Serbia.

10.7 Turkey

Financial stability indicators still point to a stable banking sector but must be seen in the context of the recent turn of the economic and financial cycle, with a sharp slowdown in GDP growth and significantly lower credit growth. Following strong GDP growth in 2015, the economy slowed sharply in the second half of 2016 on the back of the failed coup attempt and the associated increase in political uncertainty. Credit growth decelerated both due to demand (weak investment, consumers reacting to higher interest rates) and supply factors (higher credit and funding risks, tightening in credit standards). Fiscal policy turned expansionary in 2016, and the Central Bank of the Republic of Turkey cut the marginal funding rate by 250 basis points (also in the process of narrowing the interest rate corridor) between March and September. However, in response to sharp depreciation pressures on the Turkish Lira, the central bank decided to raise its main policy rate again at the end of November. Although the central bank kept policy rates unchanged at the December meeting, monetary conditions have tightened (despite the slowdown in GDP and credit growth). This highlights the strong dependency of the Turkish economy on capital inflows in the context of a high current account deficit and low (and recently further decreasing levels of) stable funding sources such as foreign direct investment.

Table 20
Structure of the banking sector

	Description	2011	2012	2013	2014	2015	Jun-16
Number of banks		48	49	49	51	52	53
of which foreign-owned		23	24	23	25	28	28
Total assets of financial system *(banks and non-bank financial institutions)*	Million euro	563,274	662,536	662,245	802,327	844,057	884,828
Total assets of banking sector	Million euro	498,402	582,009	585,180	704,208	742,153	772,695
Total assets of banking sector	Percentage of nominal GDP	93.8	96.7	110.5	114.1	120.7	112.7
Total assets of private banks	Million euro	347,516	406,963	405,162	483,951	504,844	519,424
of which assets of foreign-owned banks	Percentage of total assets	23.6	24.1	26.8	28.0	44.6	44.2
Total liabilities of private banks	Million euro	347,516	406,963	405,162	483,951	504,844	519,424
of which foreign liabilities	Percentage of total liabilities	21.5	19.6	23.0	22.5	23.7	23.8

Sources: Central Bank of the Republic of Turkey and IMF's World Economic Outlook.

Lower credit growth has led to a stabilisation of the credit-to-GDP ratio. Private sector credit growth decreased to 9.2% (year on year) in September, down from 23.7% in the same month of the previous year.[21] As a result, total banking sector assets (as a percentage of GDP) discontinued the upward trend of recent years, falling back to 2014 levels since the start of the year (**Table 20**). The local bond market is more developed than in Western Balkan countries, but its size relative to

[21] The latest drop in credit growth came in spite of recent measures by the Central Bank of the Republic of Turkey to support funding conditions for banks, including two cuts in reserve requirements in August and September, as well as cuts in the overnight lending rate (i.e. the upper bound of the corridor) from 10.75% to 8.25% since March, bringing the average cost of central bank funding down from 9.1% in February to 7.8% in October.

GDP has decreased recently and the market is still dominated by government bonds (**Table 21**).

Table 21

Local capital markets

	Unit	2011	2012	2013	2014	2015	Jun-16
Size of local bond market (amount outstanding, at market value)	Percentage of GDP (eop)	29.5	29.3	28.0	26.3	25.0	24.5
share of corporate bonds	As a percentage of total local bond market	3.7	6.8	8.3	9.8	9.7	9.8
share of governement bonds	As a percentage of total local bond market	96.3	93.2	91.7	90.2	90.3	90.2
Size of local stock market (amount outstanding)	Percentage of GDP (eop)	6.9	6.8	6.6	6.0	5.4	5.5
Banks' outstanding corporate bonds	Million euro	7,551	16,074	20,461	31,519	30,803	30,720
Banks' holding of government securities	Million euro	116,999	121,110	96,164	106,835	100,806	98,661
Debt securities issued by corporations[1)]	Percentage of GDP (eop)	n.a.	0.2	0.8	1.1	1.3	1.4
Banks' credit to non-government residents[2)]	Percentage of GDP (eop)	50.6	54.3	65.1	69.6	74.8	76.0

1) Outstanding amount of debt securities issued by resident non-financial corporations, MFIs and other financial corporations.
2) MFI (excluding NCB) credit to domestic non-MFI residents other than government. Credit includes outstanding amounts of loans and debt securities.
Notes: August 2016 for banks' holdings of government bonds, outstanding corporate bonds and credit to non-government residents.
Source: Central Bank of the Republic of Turkey.

High external imbalances and the elevated loan-to-deposit ratio imply considerable funding risks for the Turkish banking sector. The structurally low (private) savings rate and the associated high current account deficits have led to a high external debt burden (around 49% of GDP) for the Turkish economy, with gross annual financing needs amounting to more than one-quarter of GDP. In an environment of high political uncertainty in Turkey and tightening financial conditions globally, this may imply considerable funding risks also for the banking sector, and the large share of foreign currency liabilities increases this risk in the case of a continued depreciation of the Turkish lira. The high loan-to-deposit ratio makes banks dependent on cross-border wholesale funding and, thus, on global financing conditions. Another potential source of concern is the noteworthy net open foreign currency position of the Turkish non-financial corporate sector (USD -201 billion in July or about 30% of GDP), which makes banks' asset quality vulnerable to lira depreciation. Forex lending in the corporate sector is, however, mainly concentrated in large corporations (e.g. in large-scale private infrastructure investments with mostly government service purchase guaranties). Other mitigating factors in this context are the increasing average maturity of external debt over the past two years (also thanks to macroprudential measures by the central bank), the decline of the share in external liabilities in total bank liabilities and the banking system liquidity buffers that are able to cover the short-term debt (due within one year).

The slowdown in credit growth has been associated with a modest improvement in bank profitability and capital adequacy ratios, halting a downward trend that started back in 2009. The capital adequacy ratio of the banking sector increased to 15.8% in the second quarter (up from 15.4% a year earlier) and bank profitability also recovered somewhat, with the return on equity increasing to 11.9% (up from 11.2% a year earlier). Thus, capital adequacy is well above the legal minimum of 8%, with around 85% of capital classified as Tier 1 (**Table 22**), although part of the improvement is due to a relaxation of prudential norms that released provisions and lowered regulatory risk weights on consumer loans, bringing it into line with the minimum Basel standards.

The NPL ratio has only risen marginally to 3.5% (of total gross loans) but risks have increased recently. Overall, with the banking sector's relatively comfortable capital buffers and liquidity coverage ratios well above legal limits, there appears to be some capacity to absorb a possible deterioration in asset performance.[22] The IMF[23] has recently argued that the still low NPL ratio may understate the extent of asset quality impairment on account of credit restructuring in certain sectors. While this might hold true to some extent, this restructuring effect on asset quality seem to be rather limited in magnitude, because a significant share of the restructuring has most probably been requested by customers who wanted to renegotiate their credit conditions owing to longer maturities provided by the restructuring facility and/or lower interest rates rather than repayment difficulties. Overall, while the NPL ratio has remained low compared with that of Turkey's peers in the Western Balkans and capital buffers are sufficient to absorb the short-term weakness of the economy, a protracted and long-term recession would likely constitute a significant threat to the banking sector.

[22] The low NPL ratio may also result from Turkey being in a different position in the financial cycle in comparison with countries in the Western Balkans. While the latter experienced a financial boom prior to the global financial crisis, followed by a bust, credit growth in Turkey remained buoyant until recently. If the slowdown in GDP growth (as well as credit growth) continues, however, implying a turn of the financial cycle, NPL ratios could also increase substantially.

[23] See the IMF's Article IV consultation on Turkey, February 2017, page 6.

Table 22

Financial soundness indicators

(percentages)	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Regulatory capital to risk-weighted assets	15.3	15.7	16.3	15.9	16.3	15.5	15.4	14.6	15.6	15.5	15.8
Regulatory Tier 1 capital to risk-weighted assets	13.0	13.4	14.0	13.5	13.9	13.2	13.0	12.3	13.2	13.3	13.5
Non-performing loans net of provisions to capital	3.9	3.9	4.1	4.8	4.4	4.8	4.7	5.2	5.0	5.1	4.9
Non-performing loans to total gross loans	2.8	2.9	2.9	3.0	3.0	2.9	3.0	3.1	3.2	3.4	3.5
of which in forex (NPLs denominated in FX to total NPLs)[1)]	10.9	11.7	12.2	15.4	14.9	15.5	14.8	13.3	12.7	12.6	13.1
of which in euro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in USD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
of which in CHF	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Households: NPLs to total gross loans to households	2.9	3.2	3.2	3.4	3.4	3.5	3.8	4.1	4.3	4.4	4.4
Non-financial corporations: NPLs to total gross loans to non-financial corporations	2.7	2.6	2.6	2.7	2.6	2.6	2.5	2.5	2.7	2.9	2.9
Return on assets	1.6	1.4	1.4	1.3	1.3	1.3	1.3	1.1	1.2	1.2	1.3
Return on equity	13.1	12.3	11.8	11.5	11.5	11.4	11.2	10.4	10.6	10.9	11.9
Liquid assets to total assets[2)]	13.1	12.2	12.0	11.6	11.6	10.7	10.4	10.9	10.5	10.9	10.6
Liquid assets to short-term liabilities[2)]	22.0	20.0	20.0	19.5	19.5	17.6	17.7	18.1	17.5	18.0	17.9
Net open position in foreign exchange to regulatory capital[2)]	-0.6	1.6	2.0	-2.1	-2.2	-1.2	-0.7	-1.3	0.9	0.9	-0.5
Capital to assets	12.9	13.1	13.6	13.3	13.6	12.9	12.9	12.2	13.0	12.9	13.2
Large exposures to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Gross asset position in financial derivatives to capital[2)]	291.4	284.4	234.9	254.0	240.5	285.2	286.4	301.7	273.9	278.6	281.3
Gross liability position in financial derivatives to capital[2)]	291.0	285.5	236.8	255.2	241.0	284.4	285.7	298.4	273.3	278.2	281.2
Trading income to total income	0.9	-0.5	-2.7	-2.7	-2.5	-2.4	-2.9	-5.3	-5.5	-6.0	-4.7
Interest margins to gross income	62.6	62.3	62.9	64.4	65.2	65.2	66.5	68.1	68.3	69.3	67.4
Cost-to-income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-interest expenses to gross income	54.4	56.0	54.4	54.3	55.3	55.1	55.7	57.7	56.8	51.2	48.8
Foreign currency-denominated loans to foreign currency-denominated deposits	89.4	83.6	89.2	87.7	94.5	91.3	84.5	85.5	88.7	86.5	89.8
Foreign currency-denominated loans to total loans	26.2	25.7	25.2	26.2	26.6	27.7	27.8	30.0	29.0	28.5	28.5
Foreign currency-denominated liabilities to total liabilities	40.8	41.8	40.5	42.2	41.4	43.7	45.4	46.8	44.6	44.0	43.1
Net open position in equities to capital	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Household debt to gross domestic product	23.8	23.1	22.7	22.8	22.8	23.1	23.1	22.8	22.4	22.0	22.1
Household debt service and principal payments to income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Residential real estate prices (percentage change last 12 months)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	18.9	18.5	18.4	15.4	13.9
Loan-to-deposit ratio[2)]	105.9	107.5	109.8	110.9	112.4	113.1	114.0	110.9	113.3	112.6	113.5
Loan-to-value ratios for housing loans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ratio of external liabilities to total liabilities of banks	23.3	22.5	22.6	22.9	23.2	24.1	23.7	24.9	24.1	23.6	24.4

1) Public Disclosure Platform data of 11 banks constituting 78% of the sector’s forex loans.
2) Development and ınvestment banks are excluded.
Notes: Non-performing loans (NPLs) are all loans and other receivables classified as with limited recovery means, suspicious recovery or having the nature of loss, according to the Regulation on procedures and principles for determination of qualifications of loans and other receivables by banks and provisions to be set aside.
Source: Central Bank of the Republic of Turkey.

References

Alvarez Orviz and Savelin (2017), “Benchmarking institutional and structural indicators in EU candidate and potential candidate countries”, *ECB Occasional Paper*, No. 184.

Central Bank of the Republic of Kosovo (2016), *Financial stability report*, No 9, Pristina, September.

European Banking Authority (2016), *Risk Dashboard,* Second Quarter, EBA, London, September.

European Investment Bank (2016), *CESEE Bank Lending Survey*, EIB, Luxembourg, July.

International Monetary Fund (2017), “Article IV consultation with Turkey”, *IMF Country Report*, No 17/32, Washington D.C., 3 February.

Ministry of Finance of the Republic of Serbia (2015), *NPL Resolution Strategy*, Belgrade.

National Bank of Serbia (2016), *NBS Action Plan for Implementation of the NPL Resolution Strategy*, Belgrade.

Acknowledgements

The authors would like to thank Michael Sturm and Frank Moss for thoroughly reviewing the paper. The authors are grateful for the valuable suggestions and input provided by national experts from EU candidate and potential candidate countries during a dedicated meeting in Frankfurt in November 2016, and for the kind data support from the national central banks in these countries, which have all been instrumental in the preparation of this paper. In addition, the paper benefitted from comments by and a fruitful discussion with the members of the ESCB International Relations Committee.

Gächter, Martin
European Central Bank; email: martin.gaechter@ecb.europa.eu

Macki, Piotr
European Central Bank; email: piotr.macki@ecb.europa.eu

Moder, Isabella
European Central Bank; email: isabella.moder@ecb.europa.eu

Polgár, Eva Katalin
European Central Bank; email: eva-katalin.polgar@ecb.europa.eu

Savelin, Li
European Central Bank; email: li.savelin@ecb.europa.eu

Żuk, Piotr
European Central Bank; email: piotr.zuk@ecb.europa.eu

© European Central Bank, 2017

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.ecb.europa.eu

All rights reserved. Any reproduction, publication and reprint in the form of a different publication, whether printed or produced electronically, in whole or in part, is permitted only with the explicit written authorisation of the ECB or the authors.

The cut-off date for data included in this report was September 2016.

This paper can be downloaded without charge from www.ecb.europa.eu, from the Social Science Research Network electronic library or from RePEc: Research Papers in Economics. Information on all of the papers published in the ECB Occasional Paper Series can be found on the ECB's website.

ISSN	1725-6534 (pdf)	DOI	10.2866/477117 (pdf)
ISBN	978-92-899-2852-6 (pdf)	EU catalogue No	QB-AQ-17-010-EN-N (pdf)