



ROMANIA

FINANCIAL SECTOR ASSESSMENT PROGRAM

TECHNICAL NOTE—BALANCE SHEET ANALYSIS

June 2018

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BALANCE SHEET ANALYSIS

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Monetary Fund**

This Technical Note was prepared in the context of a joint IMF-World Bank Financial Sector Assessment Program (FSAP) mission to Romania during October 31–November 21, 2017, and January 11–23, 2018 led by Erlend Nier, IMF and Laurent Gonnet, World Bank, and overseen by the Monetary and Capital Markets Department, IMF, and the Finance, Competitiveness and Innovation Global Practice, World Bank. The note contains the technical analysis and detailed information underpinning the FSAP assessment's findings and recommendations. Further information on the FSAP program can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>.

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Glossary

FDI	Foreign Direct Investment
FSAP	Financial Sector Assessment Program
FX	Foreign Exchange
GDP	Gross Domestic Product
IF	Investment Funds
NBR	National Bank of Romania
NPLs	Nonperforming Loans
OFIs	Other Financial Institutions
PF	Pension Funds
ROW	Rest of the World

INTRODUCTION¹

1. This note analyzes macro-financial interlinkages, sectoral dependencies, and potential balance sheet vulnerabilities for all resident sectors. The mission used the sectoral balance sheets compiled by the National Bank of Romania (NBR)² to map balance sheet exposures and potential contagion channels among different sectors. The construction of intersectoral network maps sheds light on balance sheet vulnerabilities and how these developed over time, potentially leading to risks building up. This analysis helps to understand causes and effects of macro-financial imbalances, provides a coherent context in which net lending and borrowing stocks cover all sectors, and supports the development of remedial policies outlined in other areas of the FSAP.

KEY FINDINGS

A. Overview of Sectoral Exposures and Imbalances

2. Since 2008, gross balance sheet and intersectoral exposures in the Romanian economy have been growing steadily. The increase in economic activity has resulted in a general increase of borrowing and of interconnectedness between sectors. The overall amount of balance sheet exposures stood at approximately 400 percent of gross domestic product (GDP) throughout the periods considered. The financial accounts, compiled by the NBR with a from-who-to-whom detail of sectoral exposures, show how intersectoral claims have increased between 2008–16 particularly in the short-term debt³ and “other assets” categories.⁴ In the financial accounts framework, each financial claim has a corresponding liability, so that the sum of all net borrowing is zero by construction.

3. Focusing on net borrowing, corporates are the largest net borrowers (80 percent of GDP), followed by the government (20 percent of GDP). Households and Rest of the World (ROW) provide an approximately equal amount of funding to the economy, while the financial system intermediates credit between ultimate lenders and ultimate borrowers (Figure 1). In the first period considered (2008–12), exposures increased mainly through FX borrowing and FX deposits. In the second period (2012–16), the increase has been driven by an increase in national currency exposures, mainly the government placing securities with the banking system and corporates using large amounts of trade credit as a source of financing.

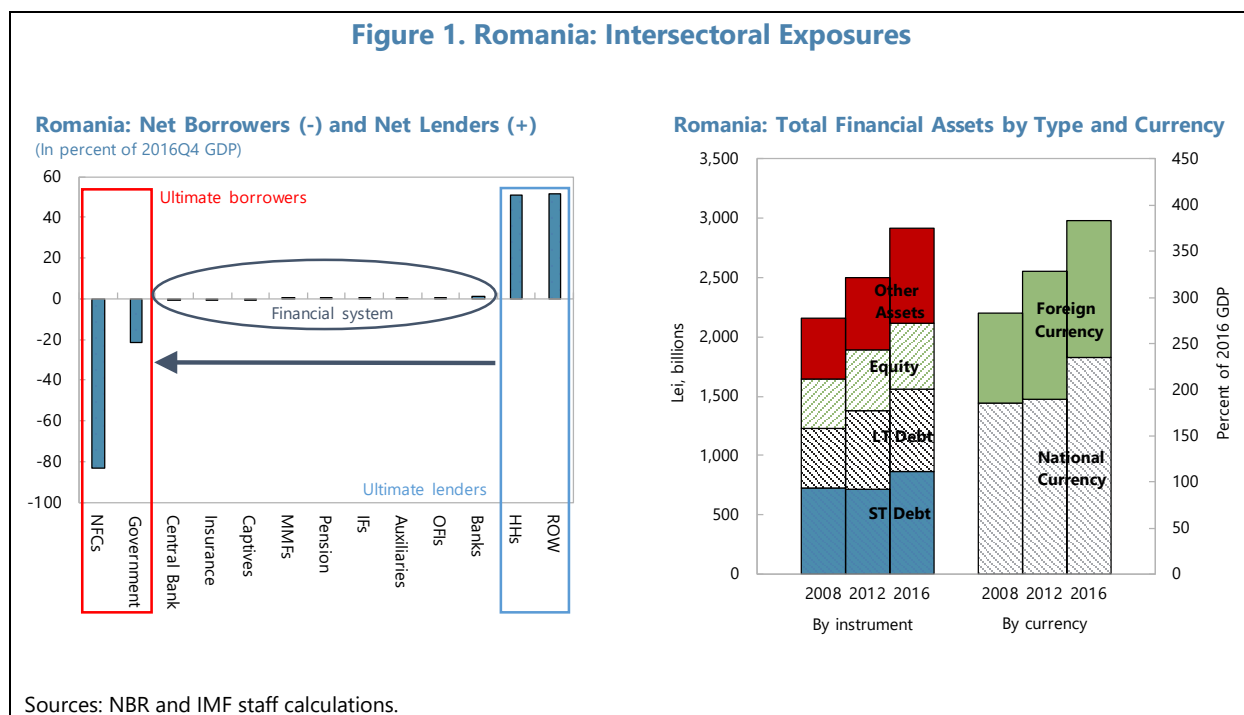
¹ Prepared by Giovanni Ugazio from the IMF's Statistics Department for the 2018 Romania FSAP.

² The analysis in this note is based on the financial accounts database compiled by the National Bank of Romania, covering end-of-year stocks for the years 2008, 2012, and 2016.

³ Short-term financial assets are defined as assets with an original maturity of one year or less.

⁴ Other assets include trade credit, financial derivatives and assets other than equity and debt instruments. In the case of corporates, shareholders' loans are included in this item.

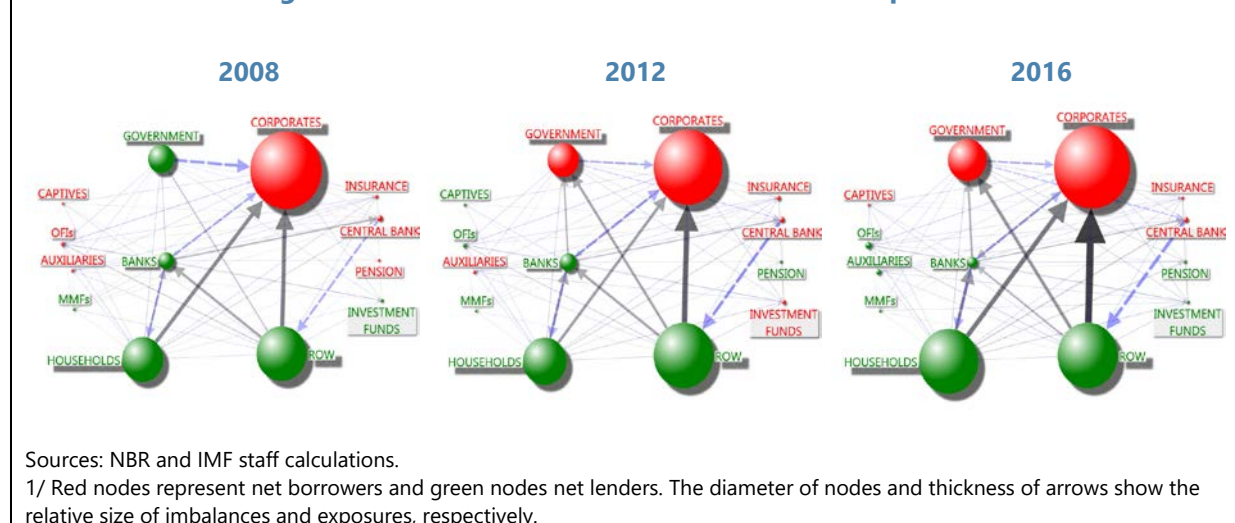
Figure 1. Romania: Intersectoral Exposures



4. As net borrowing increased, the government's net position turned negative, corporate imbalances grew, and households increased their net financial wealth. The network representation of the financial accounts over time provides a graphical overview of gross (arrows) and net (nodes) balance sheet exposures. The largest development between 2008 and 2016 has been the change in the government's net financial position from positive to negative, driven by repeated budget deficits (Figure 2). The government's borrowing pattern also changed over time, as between 2008 and 2012 it mainly borrowed externally, while in more recent periods it placed a significant amount of securities with the domestic banking system, contributing to a strong sovereign-banks balance sheet nexus. Mitigating the vulnerability from the banks-sovereign balance sheet linkage is one of the key recommendations of the stress testing and risk analysis.

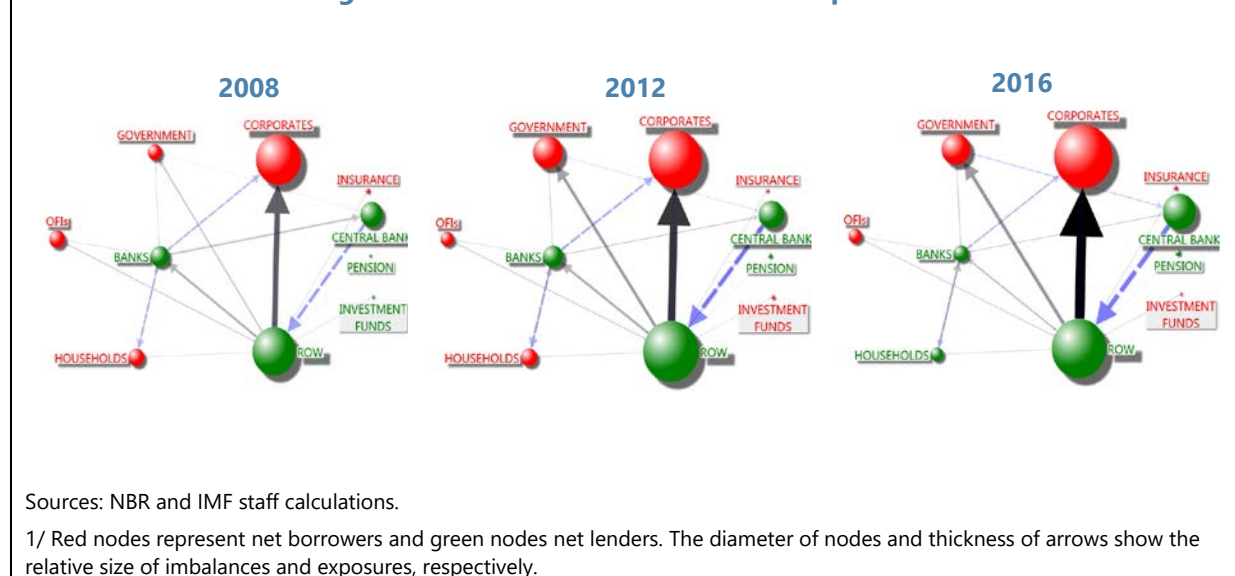
5. Turning to the nonfinancial sectors, ultimate creditors remained the same but a significant disintermediation out of the bank lending channel occurred over time. This is mostly visible in the increase during 2012–16 of corporates' external borrowing and the direct financing of corporates by households, which is a key component of households' financial wealth.

Figure 2. Romania: Network of Balance Sheet Exposures¹



6. Balance sheet exposures in FX remain large. The overall amount of balance sheet exposures in FX stood at approximately 148 percent of GDP in 2016, slightly above 141 percent of GDP in 2008.⁵ However, the network of FX exposures highlights an increasing concentration of FX borrowing in foreign funding of the corporate and government sectors, with corporates issuing a third of overall FX debt (56 percent of GDP in 2016, approximately unchanged from 2008), while, in the periods considered, the rest of the economy has been going through a process of de-euroization. In particular, households’ borrowing in FX has decreased substantially, leading to the sector becoming a small net lender in FX through deposits (Figure 3).

Figure 3. Romania: FX Balance Sheet Exposures¹

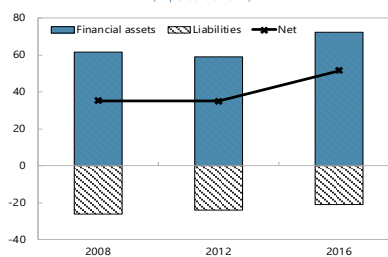


⁵ Changes to outstanding amounts of FX exposures reflect both financial transactions and valuation effects due to exchange rates movements.

B. Nonfinancial Sector Developments

7. The net financial wealth of households has increased significantly. The main driver of the improvement in the net financial position of households is the increase in financial assets, reflected in the accumulation of bank deposits (including in FX) and the large amount of shareholders' loans to corporates, which has been an important source of funding for family-owned corporates in recent years. Conversely, households' indebtedness in percent of GDP declined slightly between 2008–16 and stands at approximately 20 percent of GDP.

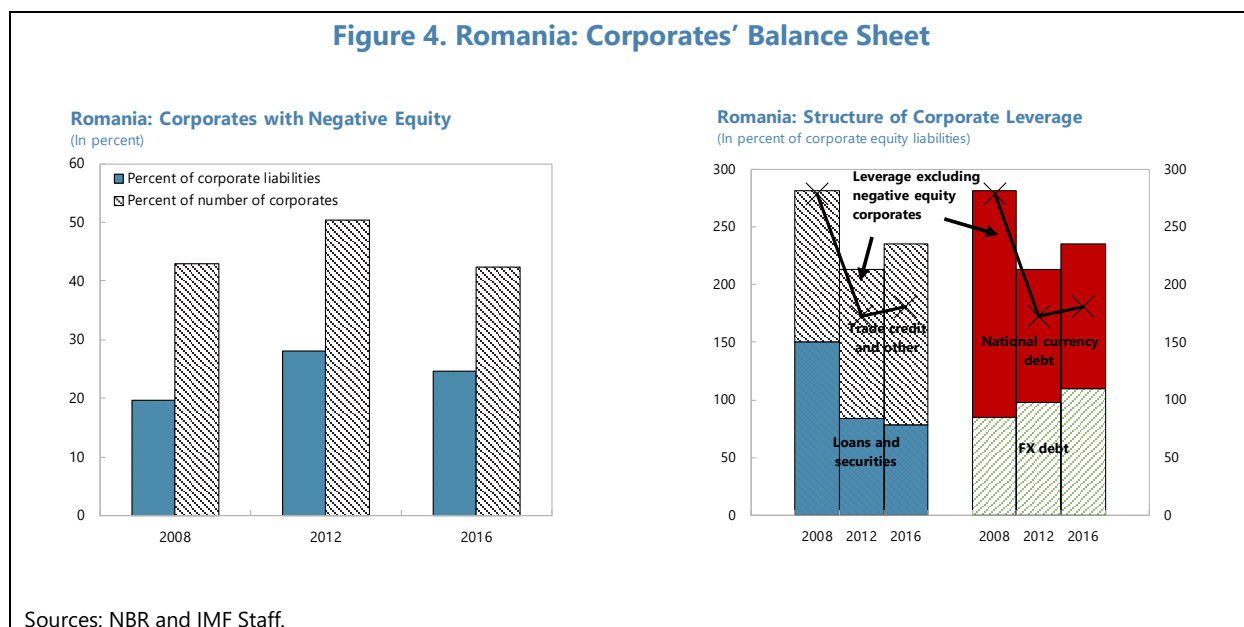
Romania: Increasing Financial Wealth of Households
(In percent of GDP)



Sources: NBR and IMF staff calculations.

8. Corporate leverage is rising, after a post-crisis sharp decline, potentially posing an emerging vulnerability. Corporate leverage, defined as total nonequity liabilities over capital, declined sharply between 2008–12, on the back of a large reduction of short-term inter-company debt.⁶ However, despite a sustained decline of corporate bank lending between 2012–16, corporate debt has been rebounding with a more prominent role of funding from abroad and nonfinancial lenders (Figure 4). This development highlights the importance of capturing all corporate liabilities, beyond credit from the supervised financial sector, when assessing financial stability implications of corporate leverage. In the case of Romania, the large balance sheet exposures within the corporate sector may represent a contagion channel if corporates fail to service reciprocal claims (e.g., trade credit), possibly spilling over to the financial sector should default rates on corporate loans also pick up. The overall measure of corporate indebtedness for the entire sector is also adversely affected by the persistently high number of corporates (approximately 40 percent, representing 25 percent of total corporate liabilities) that operate with negative equity positions.

Figure 4. Romania: Corporates' Balance Sheet



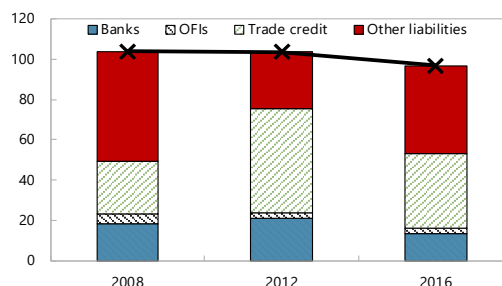
Sources: NBR and IMF Staff.

⁶ Inter-company debt means debt issued by a domestic corporate and held by another domestic corporate.

9. Domestic funding of corporates has been shifting out of financial sector lending.

Financial institutions providing credit to corporates include mostly banks and other financial institutions (OFIs), with approximately 80 percent of credit being provided in the form of long term loans. The significant decline in corporate loans between 2012–16 reflects several factors including: (i) a genuine decline in corporate loans, due to deleveraging of banks and a shift towards mortgage lending and (ii) the NBR's action plan to remove nonperforming corporate loans from banks' balance sheets, through write-offs, but mostly through selling loans to debt collecting agencies (local and foreign). These operations generate a decline in value for the outstanding loans, since transactions are either reported at the discounted price at which they take place or, in some cases, are not covered by the dataset due to debt collection agencies not being included in the credit register. At the same time, loans from financial institutions represent less than a quarter of corporates' domestic funding sources, as corporates in Romania heavily rely on short-term funding in the form of trade credit (mostly from other corporates in Romania) and shareholders' loans mostly from domestic households.

Romania: Financial and Nonfinancial Sectors Funding of Corporates¹
(In percent of GDP)



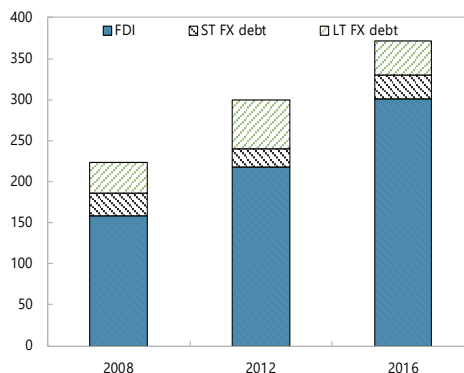
Sources: NBR and IMF staff calculations.

1/ Trade credit and other liabilities funding predominantly from nonfinancial sectors.

10. Inward Foreign Direct Investment (FDI) has been an important source of increased corporate external borrowing, even as portfolio debt remains significant.

In the period 2008–16 financing of Romanian corporates has been increasingly relying on external funds, as domestic credit from banks and government decreased. Although most of the increase in external funding is linked to equity and debt in the context of FDI, external portfolio debt in foreign currency loans remains significant, against relatively small corporate FX buffers (three percent of GDP in FX corporate deposits in 2016). To measure the extent to which these capital inflows pose a balance sheet vulnerability for corporates, further data disaggregation by type of corporate (e.g., export-oriented) would be required, for instance to account for natural hedges.

Romania: Corporate FDI and External Borrowing in FX
(In billions of lei)



Sources: NBR and IMF staff calculations.

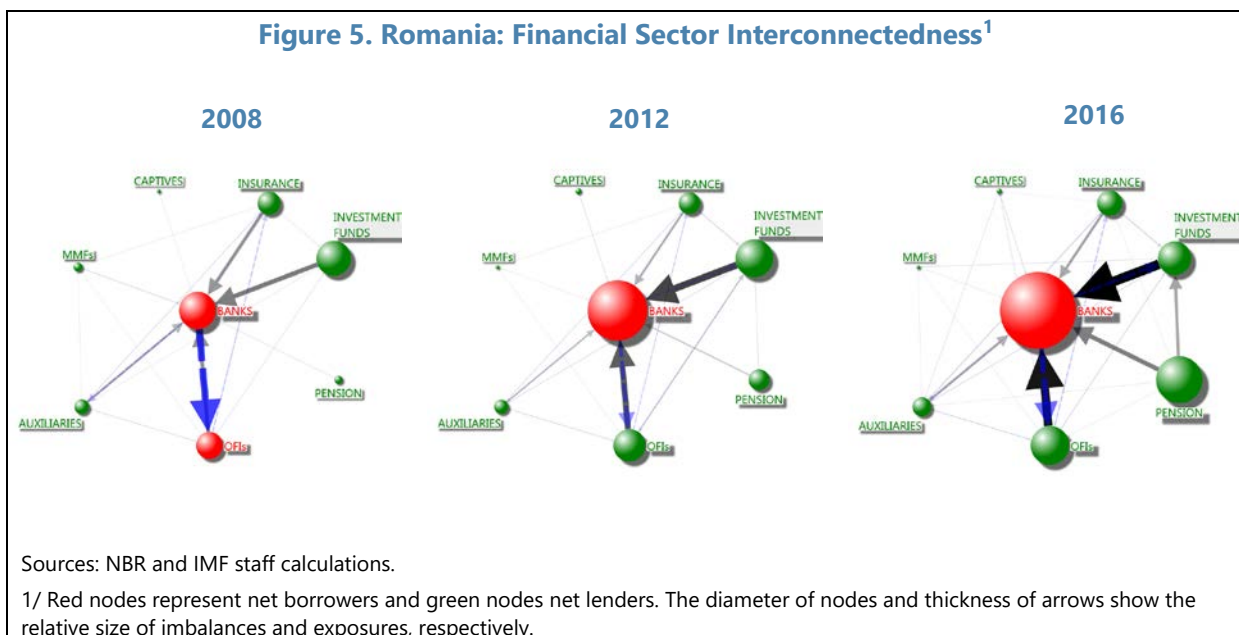
C. Financial Sector Developments

11. The financial sector size and interconnectedness have been increasing significantly.

The overall amount of intra-financial sector (excluding the central bank) exposures grew from five percent of GDP in 2008 to approximately seven percent of GDP in 2016. The banking system is at the center of intra-financial sector balance sheet connections, as an overall net borrower that channels funds to other domestic sectors (Figure 5). The funding of bank liabilities by domestic

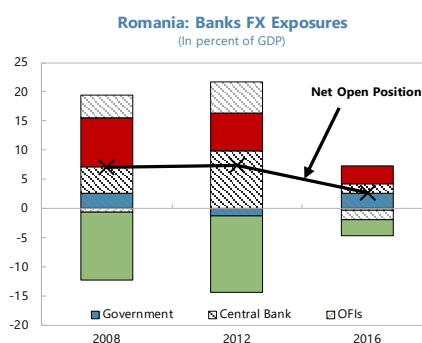
financial institutions has been rising and stood at close to 10 percent of banks' nonequity liabilities in 2016. Moreover, banks are also exposed on the credit side to nonbank financial institutions, in particular to OFIs.

Figure 5. Romania: Financial Sector Interconnectedness¹

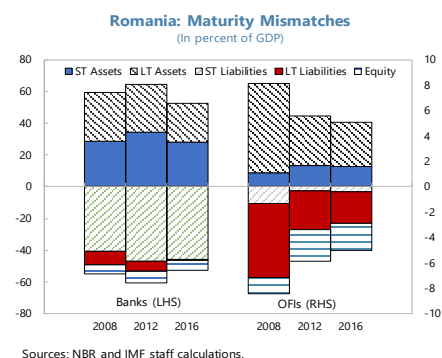


12. From the financial stability perspective, a positive development comes from the new bank funding channel that has developed through pension and investment funds equity holdings. The increase of bank funding coming from pension funds (PF), investment funds (IF), and OFIs may present an increasing vulnerability of the banking system to shocks to this type funding, and in turn increases exposures of these nonbank financial institutions to bank liabilities. However, it could also point to welcome diversification effects. Over the period considered, PFs have diversified their assets holdings including by starting to purchase bank equities and IF shares, while IFs have almost tripled their exposure to bank equities and debt. This development is welcome, as it achieves a diversification of the investor base in bank equity, while diversifying the portfolio of domestic nonbank financial institutions out of more traditional assets holdings.

13. FX exposures have migrated outside the banking system, as euroization of banks' balance sheets decreased. Although exposure to FX lending—particularly to corporates—remains a vulnerability for the banking system in Romania, the balance sheet analysis shows that both gross and net FX exposures have become much smaller as a percent of GDP. The main drivers of this development are the disintermediation of corporate credit, with corporates obtaining FX funds from abroad instead of from the banking system, and households FX borrowing declining substantially between 2008–16. The recent increases in households' deposits in FX have resulted in banks becoming net borrowers of FX from individuals.



14. Banks' balance sheets show a large maturity mismatch, while OFIs are mostly funded long-term. The assets side of the banking system balance sheet is composed of approximately equal amounts of long- and short-term assets, thus including a significant amount of liquid assets. On the liabilities' side, banks' assets are almost entirely financed by short-term customer deposits, with long-term funding completely disappearing in the 2016 vintage. This development reflects an increasing maturity transformation operated by the banking system in Romania. On the other hand, the balance sheet composition of OFIs highlights a very large share of long-term assets, which are financed mainly through long-term bank loans and equity.



CONCLUSION

15. The balance sheet analysis of the Romanian economy supports various key findings and recommendations of the mission:

- **Sovereign-bank nexus:** as the government financing needs grew, during the period 2012–16 banks became a significant holders of government debt, further supporting the need for risk-mitigating measures.
- **Corporate vulnerabilities and data gaps:** despite a sustained reduction of bank lending, corporate leverage has been increasing during 2012–16, pointing to a significant increase in disintermediation and the strengthening of nonbank funding channels (trade credit and direct lending from abroad). In addition, the issue of corporates operating with negative equity also adds an important share to outstanding corporate liabilities. A more in-depth analysis of corporate vulnerabilities would have to rely on improved data collection (e.g., to cover NPLs of companies operating with negative equity and distinguishing corporates with external funding by type of business). The World Bank analyzed the supply and demand factors explaining the low financial intermediation, and recommended authorities to adopt a comprehensive view of financial development.
- **Corporate debt held by debt collection agencies:** corporate indebtedness cannot be fully understood without a comprehensive overview of outstanding debt. Following the recent cleanup of banks' balance sheets, including through the selling of corporate NPLs to debt collection agencies, some corporate liabilities may not be correctly captured by the sectoral balance sheets as debt collection agencies do not report any data on their holdings of debt. Inclusion of debt held by collection agencies in the credit register is therefore warranted, and can be achieved by amending the primary legislation in this regard.

- **Banks-OFI interdependencies:** the balance sheet analysis applied to the financial sector provides the general context for the in-depth network analysis of bank-NBFL interconnectedness discussed in the stress testing and risk analysis technical note.⁷ The reciprocal exposures between banks and OFIs shows that OFIs provide a significant amount of funding to banks, while banks channel some of their lending through the OFIs, possibly creating a problem of regulatory arbitrage. As recommended, tightening of provisioning requirements for OFIs in line with the application of IFRS9 to banks may prevent regulatory arbitrage.

⁷ All NBFLs are classified as OFIs in the NBR sectoral accounts.