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THE FINANCIAL SYSTEMS IN RUSSIA AND TURKEY: RECENT DEVELOPMENTS AND CHALLENGES

by Simone Auer*, Emidio Cocozza* and Andrea Colabella*

Abstract

Following the severe financial crises of the 1990s and early 2000s, substantial efforts have been undertaken in Russia and Turkey to diversify and deepen the financial systems. However, despite unquestionable improvements, financial deepening in Russia and Turkey has taken place at a slower pace than in other major emerging economies. Our paper highlights that this is in part a consequence of a highly volatile economic environment and deep-seated institutional and structural bottlenecks. Though authorities in both countries have committed to sounder economic policies and have implemented important structural reforms to improve the institutional environment and overcome structural weaknesses, over time reform fatigue has gradually taken hold. As a consequence significant gaps and weaknesses in the institutional and business environments still characterize, to a different degree, Russia and Turkey. These factors have not only slowed the development of the financial system as a whole, but have also contributed to the build-up of key vulnerabilities, which have come to the fore more recently in the context of a less supportive external environment.

JEL Classification: E65, G21, O43, O57, P17, P27, P34, P52, Q32.

Keywords: exhaustible resources, financial deepening, institutional quality, international banking, international finance, Central and Eastern Europe, Russia, Turkey.

Contents

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1. Introduction and main conclusions

Following the severe financial crises of the 1990s and early 2000s, substantial efforts have been undertaken by Russia and Turkey to diversify and deepen their financial systems. Underpinned by pro-market reforms, enhanced regulatory and supervisory frameworks and prudent macroeconomic policies - as well as exceptionally favourable external conditions for most of the period - financial deepening made considerable progress in both countries. In this context, financial systems weathered the 2008-09 global financial crisis relatively well, indicating that their strength and resilience had been greatly improved.

Yet, considering the whole period between the early 2000s and 2014, financial deepening in Russia and Turkey took place at a slower pace than in other major emerging economies; despite unquestionable improvement, also in terms of diversification, their financial systems remain, in many aspects, relatively underdeveloped compared with their peers.

This backwardness is in part a consequence of a highly volatile economic environment and deep-seated institutional and structural weaknesses. In Russia, the high degree of dependence on commodities and low economic diversification make the economic environment highly volatile owing to the fluctuations in commodity price. In Turkey, the low and declining saving rate is one of the key factors underlying macroeconomic volatility, as the economy is largely dependent on capital inflows and on the evolution of external financing conditions. Facing these highly volatile environments, financial intermediaries in both countries find it difficult to assess the risks and returns associated with different investments and to provide long-term financing at a reasonable premium.

Policies have also played a role. Going back to the 1990s and early 2000s, the severe financial crises that hit Russia and Turkey were the result of poor macroeconomic management. Since the turn of the century, authorities in both countries have committed to more disciplined economic policies and have started implementing important structural reforms with the aim of improving the institutional environment and overcoming structural weaknesses. Yet, over time, there has been a slide in policy discipline, particularly in the aftermath of the last global financial crisis, and reform fatigue has gradually taken hold. In this context, significant gaps and weaknesses in the institutional and business environments still characterize, to a different degree, Russia and Turkey.

Inadequacies in the enforcement of private property rights and of contractual arrangements have hampered firms' access to external sources of financing. A lack of trust in the financial system is widespread among savers and is revealed by a preference for short-term instruments and dollarization, especially during turbulent periods. Together with the lack of a broad and diversified domestic investor base, which reflects the scarcity of institutional investors, all these factors have hampered the development of deep capital markets. This feature sets Russia and Turkey apart from most other emerging market economies, where both equity and, to a larger extent, bond markets have been the fastest growing segments of the financial systems. Instead, in Russia and Turkey the largest advances have taken place in the banking sector, while security markets have not developed nearly as much.

The presence of obstacles to the entry of foreign intermediaries, a dominant position held by state-owned banks, as well as the difficulties faced by foreign investors as they operate in an environment marked by significant institutional weaknesses, have also hindered the international financial integration of the banking system in both countries. Nevertheless, a number of euro-area banking groups that are following regional expansion strategies, and already have a multiple-country exposure and a dominant market share

in several Eastern European countries, have been attracted by the opportunity to tap the significant profit potential of the Russian and Turkish banking markets, reflecting their initially limited development. Italian banks have played a key role in this process.

Economic and institutional weaknesses have not only slowed the development of the financial system as a whole, but have also contributed to the build-up of key vulnerabilities, which have recently come to the fore as the external environment has become less supportive or even challenging.

Faced with shallow domestic financial systems, large non-financial corporations and banks in both countries have had to resort to international markets to cover their funding needs at the margin. While external public debt has decreased significantly over the years, since the turn of the century private sector borrowing has started to grow and now accounts for more than half of total external debt. This makes the system vulnerable to external shocks, as it initially became evident during the 2008-09 crisis and more recently in Russia, when the introduction of the international sanctions cut many companies off from international markets. Moreover, owing to large (domestic and external) borrowing in foreign currency, the system is now exposed to the effects of exchange rate depreciation, a risk which is particularly acute among non-financial corporations in Turkey.

The development of the banking sector has not been immune to these broad economic and institutional challenges. A rather narrow deposit base has given rise to a structural domestic funding gap in both countries. This is due not only to a shortage of potential available funds, which is certainly not the case in Russia, where a low level of retail deposits coexists with a large pool of domestic savings; but it is also a signal of poor public trust in the stability of the domestic banking system. Against this backdrop, Russian and Turkish banks have had to turn to alternative sources of funding. In Turkey, banks have relied on international financial markets, a trend that has brought about the build-up of a sizeable negative net foreign asset position. In Russia the banking system has become increasingly dependent on financial resources provided by domestic authorities. At the same time, as deposits in both countries have typically displayed very short maturities, this has created a large structural maturity mismatch in banks' balance sheets. This causes periodic liquidity tensions, as was the case in Russia in late 2014, where a large number of small and medium-sized credit institutions, which are not eligible to obtain refinancing from the central bank, let alone to tap into international financial markets, are crucially dependent on the domestic interbank market, which has proved not always effective in redistributing liquidity across the system during periods of stress. In both countries, banking vulnerabilities have been mitigated by stricter microprudential and macroprudential controls or directly tackled with capital injections by the state, as was the case for Russia. However, the underlying causes have not been adequately addressed.

Financial development in Russia and Turkey continues to be hindered by persistently high macroeconomic volatility and a weak institutional and economic environment. Against a background of less supportive, if not adverse, external conditions, carrying forward the process of financial deepening could become even more difficult.

The rest of the paper is organized as follows. Section 2 provides a broad overview of the Russian and Turkish financial systems, comparing them with those of a selected group of major emerging market economies. Sections 3 and 4 analyse the role played by the wider economic and institutional environment in determining the pattern of financial development in both countries since the turn of the century. Section 5 concludes by examining the main current vulnerabilities and challenges for their financial systems.

Appendices 1 and 2 provide an in-depth analysis of the characteristics and the evolution of the main financial segments (banking, debt securities and equity markets) in Russia and Turkey, respectively.

2. An overview of the financial systems of Russia and Turkey: a comparative perspective

Looking at a standard set of indicators of the development of the financial sector – in particular those measuring its overall size and the weight of its main segments (banking, debt securities and equity markets) – Russia and Turkey have both made significant progress since the turn of the century. Yet, their financial systems remain in many respects relatively underdeveloped compared to the other emerging market economies (EMEs).

The financial system as a whole – At the end of 2014, the total size of the financial system (total assets of domestic banks, outstanding debt securities issued by residents in domestic and international markets and stock markets capitalization) was about 150 per cent of GDP in Russia and 180 per cent of GDP in Turkey (Figure 1, Panel A), both numbers being relatively small by international standards. In fact, the overall average dimension of the financial system for a group of eleven selected EMEs[1] was around 270 per cent of GDP, with Russia and Turkey ranking tenth and seventh, respectively, along this metric. These low positions mostly reflect Russia's relatively low starting point and Turkey's slow financial deepening process.

Other indicators also point to the conclusion of a relatively low development of the Russian and Turkish financial systems. According to the financial development index proposed by Sahay *et al.* (2015), which, together with size, encompasses other dimensions (i.e. liquidity, access and efficiency), both countries compare relatively unfavourably with other EMEs in 2013, despite Russia having made significant progress since the turn of the century (Figure 2).[2] Based on the indicator of financial market development included in the Global Competitiveness Report 2015-16 (WEF, 2015), Russia and Turkey rank 95th and 64th, respectively, out of 144 countries, far below the rank of the median peer economy (49th; Figure 3). Such low rankings reflect structural weaknesses, particularly in the field of the protection of legal rights and ease of access to finance; in the case of Russia, perceptions of an inadequate regulatory framework are also a significant drag.[3]

Not only are the financial systems of Russia and Turkey relatively undersized overall, but their structure has also evolved along patterns that are somewhat different from those followed by most other EMEs. In particular, the transition from a predominantly bank-based to a more market-based model is lagging behind, with banks still dominant in both countries; if anything, banks have increased their prominent role over time. In 2014 banking sector assets accounted for about 72 per cent and 63 per cent of total assets in the financial systems of Russia and Turkey, respectively, against a peer group average of just above 50 per cent. Moreover, in both countries this ratio has increased by a factor of 1.5 since 2001, while it has been edging downwards in the other EMEs. For Russia this reflects a sizeable expansion of total bank assets as a

[1] The other emerging market economies considered are Brazil, China, India, Indonesia, Malaysia, Mexico, Poland, South Africa and Thailand.

[2] In both countries the financial development index was below the group average of major EMEs in 2013. However, in the case of Russia the distance from the best performer almost halved compared to the beginning of the century, while it remained practically unchanged in Turkey.

[3] The indicator of financial market development in the Global Competitiveness Report builds on a survey of business executives who rank their own country on eight dimensions, grouped into two main areas (efficiency; trustworthiness and confidence).

percentage of GDP, while for Turkey, where the banking sector was relatively more developed at the outset and assets have shown a moderate upward trend since 2001, this reflects a contraction in the size of the capital market. Indeed, in striking contrast with peer countries, where equity and especially bond markets were the fastest growing segments in the financial system, in Russia and Turkey capital markets have lagged behind the banking sector.

The debt securities segment – While the bond market has significantly grown across major EMEs, reaching an average size of 57 per cent of GDP in 2014,[4] it remains particularly small in Russia (at 21 per cent); it has actually shrunk in Turkey, from a relatively large initial size to about 37 per cent (Figure 1, Panel C).[5] In both countries these trends mostly reflect the downsizing of government bond markets.[6] In Turkey, it also reflects a relatively underdeveloped private bond market: indeed, debt securities issued by corporations and financial institutions amount to only 7 per cent of GDP, one of the lowest levels among EMEs (Figure 4, Panel A).[7] At the same time, this segment has been growing very fast in recent years, as financial institutions have tapped into (mainly international) debt securities markets to raise financial resources and make up for the increasingly insufficient domestic deposit base. The private securities market in Russia showed a partially different trend. Here the market was virtually non-existent at the turn of the century but has rapidly increased thereafter, to 15 per cent of GDP, even though the State continues to indirectly play a dominant role on large corporations and financial institutions through share ownership or other means of influence. At the same time, as in other EMEs, international issuance of private bonds has increased markedly, coming to represent the predominant share of the outstanding stock of private bonds in Turkey and just over half of it in Russia (Figure 4, Panel B).

The equity market segment – Equity market capitalization was extremely volatile in both countries between 2001 and 2014, even more than in other peer countries. Having peaked in 2007 – at almost 100 per cent of GDP in Russia and at 45 per cent of GDP in Turkey – stock market capitalization plummeted during the global financial crisis. After recovering shortly afterwards, it plunged again in Turkey during the 2013 'taper tantrum' episode, and in Russia following the collapse in oil prices and the imposition of international sanctions in 2014 (Figure 5). As foreign equity investors play a large role in both countries, market capitalization is significantly affected by international financial conditions. In Russia, where a large share of stocks is issued by oil and gas companies, fluctuations in oil prices contribute to market volatility. In Turkey, low domestic savings exacerbate the boom-and-bust cycles fuelled by waves of international capital flows. Moreover, in both countries stock market capitalization has systematically underperformed in the international comparison, amounting in 2014 to just 20 per cent of GDP in Russia and 27 per cent of GDP in Turkey, against an average of about 90 per cent of GDP for their peers. The lack of a broad and diversified domestic investor base, due to the limited role played by institutional investors, has hampered the deepening of equity markets, where transactions tend to be dominated by short-term speculative investments. Moreover, particularly in Russia, weak corporate governance and lack of investor protection imply that shares are persistently traded at a significant discount compared with the other peer countries (Figure 6). In Turkey, on the other hand, companies tend to source only a limited amount of funds through

[4] Taking into account all outstanding bonds issued by residents on domestic and international markets.

[5] In 2001 the Turkish bond market was one of the largest among emerging market economies, the fourth largest in absolute terms after Brazil, China and Mexico.

[6] Against the background of a significant reduction in government debt, the size of the public securities debt market as a ratio to GDP has more than halved in Russia, from 13.5 per cent to 6 per cent, and has shrunk from 53 per cent to 30 per cent of GDP in Turkey.

[7] Only in India and Indonesia is the private debt market smaller. On average, in the other EMEs outstanding private bonds accounted for about 29 per cent of GDP in 2014.

equity issuance owing to the pervasive role of the informal economy and the ownership structure of large companies, which is highly concentrated in the hands of few families.

FDI inflows – Shortcomings in the business environment and high macroeconomic volatility tend to discourage long term commitments by non-resident investors, as shown by trends in foreign direct investment (FDI). Total FDI flows in Turkey are structurally low, averaging less than 2 per cent of GDP since the beginning of the century, compared with about 3.2 per cent on average in other EMEs (Figure 7, Panel A). After picking up in the first half of the 2000s, FDI inflows into Turkey dried up during the global crisis and have not recovered since. As a consequence, the stock of inward FDI in the two countries remains substantially below the level prevailing in most peers (Figure 7, Panel B). Even if Russia compares less unfavourably on this metric,[8] it should be noted that a large part of recorded foreign investment most likely reflects the repatriation of domestic capital, reinvested in the country via foreign financial vehicles and intermediaries.[9]

Bank assets - Against the background of underdeveloped capital markets, between 2001 and 2014 bank assets rose by about 70 percentage points of GDP in Russia and 40 percentage points in Turkey, against an average growth of about 30 percentage points in peer countries. This rather fast expansion was primarily driven by claims on the private sector, which in both countries made up less than 20 per cent of GDP at the turn of the century but rose to 62 per cent of GDP in Russia and 72 per cent in Turkey at the end of 2014, almost bridging the gap with peer countries, where it increased from 65 to 85 per cent in the same period. In Turkey, lending to the private sector has come to represent 83 per cent of total bank credit (up from 38 per cent). Alongside its impressive expansion, bank credit to the private sector has also undergone changes in its structure, progressively shifting away from business lending towards household financing, a process spurred by the healthy growth in household disposable income and very low initial levels of personal indebtedness. In this context, banks have pushed the expansion of segments characterized by relatively fat margins, such as consumer credit (through credit cards and other uncollateralized loans), while other areas, such as mortgages, remain comparatively underdeveloped.

Yet, notwithstanding their remarkable overall growth, the banking systems of Russia and Turkey are still relatively small by international standards: in 2014 total bank assets were equal to about 105 per cent and 110 per cent of GDP, respectively, compared with an average 135 per cent for the peer countries (Figure 1, Panel B). A rather narrow deposit base has been one of the main factors hampering a further deepening in the banking sector, particularly in Russia, where bank deposits were less than 20 per cent of GDP at the turn of the century. The ratio was higher in Turkey (43 per cent) but still 20 percentage points lower than the average for the peers. In both countries the low level of deposits tends to reflect a widespread lack of confidence in the soundness of the banking sector, a legacy of the high financial instability of the 1990s. Since then, the combination of rising personal disposable income and improvements in the banking regulatory framework have underpinned an upward trend in the deposits-to-GDP ratio, particularly in Russia, where it has increased by 33 percentage points, in line with the average of emerging market economies (12 percentage points in Turkey). This notwithstanding, deposits have not kept pace with bank credit, widening a structural domestic funding gap that has become a major vulnerability (see Section 5).

Presence of foreign banks – A further dimension to consider in order to assess the development of the financial systems in Russia and Turkey is the role of foreign banks. Indeed, in many countries foreign banks

[8] Inward FDI flows in Russia were equal on average to 2.9 per cent of GDP per year in the period 2001-14.

[9] This phenomenon is revealed by the particularly high correlation between inward an outward investment flows to and from major offshore centres.

have become important actors in domestic financial intermediation as a result of increasing financial integration (Claessens and van Horen, 2012). However, this process has not been uniform among emerging economies, and in this regard Russian and Turkey show distinctively different patterns. BIS consolidated banking statistics show that in 2015 the internationalization of the Russian banking system was limited, as foreign claims (the sum of cross-border and local claims of domestic affiliates of foreign banks, after netting out intragroup positions)[10] were only about 10 per cent of GDP, a level which was even lower than that recorded in 2001 (Figure 8). In Turkey, on the contrary, there has been significant progress in internationalization over the last fifteen years, and the ratio of foreign claims to GDP amounted to about 35 per cent in 2015, a level even higher than the average of the other EMEs taken as a benchmark (30 per cent).

The increased role of foreign banks has shown substantial regional differences and the phenomenon has taken a nearly unique dimension in Central and Eastern European (CEE) countries, particularly those belonging to the EU. In these economies international banks played a fundamental role in spurring financial integration in the years prior to the global financial crisis, when Western European intermediaries, attracted by the opportunity to tap the significant profit potential of these markets – which in turn reflected their initial limited development – expanded rapidly in the region, gaining dominant market shares through branches and subsidiaries. As shown in Figure 9, the share of foreign claims in a subset of EU CEE emerging economies is much higher than in Russia and Turkey.[11] In the case of Turkey, while cross-border claims (as a percentage of GDP) are of the same order of magnitude of those in other CEE economies, local claims – a proxy for the presence of foreign banks in the domestic market – are still relatively low despite rising considerably over recent years, whereas Russia is trailing significantly behind regarding both cross-border and local claims. Foreign banks operating mainly through local subsidiaries and branches in domestic retail market represent the distinctive model of financial integration prevailing in most CEE countries; this pattern is only starting to emerge in Turkey and has hardly made inroads in Russia. This reflects the presence of obstacles to the entry of foreign intermediaries, a dominant position still held by state-owned banks in both systems, as well as the difficulties faced by foreign intermediaries as they operate in an environment characterized by significant institutional weaknesses.

In Turkey foreign banks have increased their market share quite gradually, mainly at the expense of domestic private banks.[12] In 2015 foreign banks accounted for around 30 per cent of total assets, even though foreign presence would actually be higher if joint ventures with domestic investors were counted in.[13] Almost all foreign banks have opted to expand their presence through acquisitions rather than by establishing their own subsidiaries as a green-field investment, as there were regulatory barriers to opening new banks and the authorities appeared to be reluctant to issue new licenses. With the privatization of large state banks effectively stalled, acquiring a domestic private bank has represented the only route to penetrate in Turkey, and foreign banks have often purchased target banks at a premium to be able to capture market shares.

[10] On immediate counterparty basis.

[11] The subset of EU CEE economies consists of Croatia, the Czech Republic, Hungary, Poland and Romania.

[12] There were five major foreign bank entries in 2005, starting with the acquisition of Türk Ekonomi Bankası by BNP Paribas, followed by seven more in 2006 and the acquisition of Oyak Bank by ING Bank in 2007. The last significant operation was the acquisition of a controlling stake in Garanti Bankası by BBV in 2015. UniCredit Group has been controlling Yapı ve Kredi Bankası A.Ş. since 2005. This bank, however, is not considered as foreign-owned in supervisory statistics, as it is controlled in partnership with Koç Group.

[13] By comparison, in 2015 foreign banks accounted for around 90 per cent of the banking sector's total assets in Croatia, the Czech Republic, and Romania, while in Hungary and Poland the share hovered around 60 per cent.

In Russia, the presence of foreign banks is still rather limited, and in 2015 foreign subsidiaries controlled 13 per cent of total assets. Entry regulations are a key factor in explaining the small market share of foreign banks in Russia. During the 1990s, authorities restricted the activity of foreign banks by setting an upper limit for foreign participation to 12 per cent of the total aggregate capital of Russian commercial banks. During the negotiations for WTO accession, it was finally agreed to raise this limit to 50 per cent, with no cap on foreign equity held in individual credit institutions. However, any acquisition of shares by non-residents had to be approved by the Central Bank of Russia (CBR). Moreover, the CBR has traditionally taken a negative stance toward the creation of branch offices by foreign entities, which were generally required to enter the domestic market through subsidiaries in order to remain within the Russian jurisdiction. A law approved by the Russian Parliament in 2013 explicitly bans foreign banks from opening branches in Russia, further dampening foreign investment in the sector. Even leaving aside these explicit limits, foreign companies find it hard to penetrate the Russian market as it is difficult to deal with its business environment (see Appendix 1).

Foreign bank presence in Central and Eastern Europe has tended to mostly follow a pattern of regional specialization among international banks. In particular, a limited number of EU banking groups entered these markets following regional expansion strategies, with a multiple-country exposure and a dominant market share in several countries. As a consequence, these same groups, already active in neighbouring Central and Eastern Europe countries, account for most of the foreign banks' share in the domestic markets of Russia and Turkey. Figure 10 shows the bank assets of foreign banks (as a share of total bank assets), grouped by main countries of origin of the banks present in the Russian and Turkish markets (Panel A and Panel B, respectively). As previously mentioned, Russia and Turkey are of a different degree of magnitude in terms of the asset shares of foreign banks; at the same time, banks from the Eurozone have the lion's share, with Italy being a top player in both countries.[14]

3. The role of the macroeconomic environment and evolving policy frameworks.

A stable macroeconomic environment is an important element to foster a transparent and balanced financial system, as it makes it easier for economic agents to assess the risks and returns associated with financial activities. If volatility is excessively high, financial markets are unlikely to provide long-term finance at a reasonable premium (WB, 2015).

Compared to peer EMEs, Russia and Turkey show a high degree of macroeconomic volatility. Indeed, in the period between 2000 and 2014, they displayed by far the highest volatility in GDP, investment and inflation (Table 1). This finding stems from structural features of these economies, which have made them highly vulnerable to external shocks.

In Turkey the low saving rate is the key factor underlying the highly volatile economic environment. Gross national savings were 15 per cent of GDP on average between 2001 and 2014, one of the lowest rates among the group of peer EMEs (Figure 11). The saving rate has dropped further in recent years, driven by the fall in the private sector component, which more than offset the increase in public sector savings.[15] In

[14] For the sake of the analysis, we consider joint ventures with domestic investors in Turkey as foreign banks.

[15] The drop in private savings stemmed mainly from a broader fall in household savings, while corporate savings remained stable, albeit low in an international perspective. Some specific factors may have played a role in explaining the decline of the private savings rate in Turkey. The successful macroeconomic stabilization that followed the 2000-01 crisis (in terms of increased public savings and lower and stable inflation and interest rates) reduced the

this context investments are, at the margin, financed via foreign savings, thus making them highly dependent on capital inflows and on the evolution of external conditions (IMF, 2013; OECD 2014). Investment booms and busts, directly tied to international capital flow cycles, are transmitted to output volatility.[16] Moreover, the current account deficit and the associated sustainable level of external financing act as a binding constraint on the country's investment rate, which is relatively low in international rankings (about 20 per cent of GDP between 2001 and 2014 on average, less than in most peer countries).

In Russia, the high degree of resource-dependency makes the economic environment particularly volatile, reflecting commodity price fluctuations.[17] The Russian economy is indeed poorly diversified, with oil and gas still accounting for nearly 70 per cent of total merchandise exports and the revenue from these sectors covering around half of the federal budget (EBRD, 2012). The role of the resource sector in the wider economy has further increased in recent years.[18] In this context, investments are highly concentrated in the oil and gas sectors, which tend to be relatively capital-intensive and with returns tilted towards the very long run. Economic agents may therefore find it risky to undertake long-term illiquid investment, even outside the resource-based sector, as few economic activities can escape the downward pull induced by a downturn in energy prices (González *et al,* 2013). Against the backdrop of a high gross national saving rate (about 28 per cent of GDP on average between 2001 and 2014), the above feature – together with shortcomings in the business environment (see Section 4) – may partly explain the country's weak investment rate (about 21.5 per cent of GDP), with a savings-investment gap which is the second highest among major EMEs.

Besides these structural features, unsound macroeconomic policies have also contributed to heightened economic volatility. Going back to the late 1990s and early 2000s, the banking and currency crises which hit Russia and Turkey at the time were also the result of poor macroeconomic management.[19] Since the early 2000s, in the context of IMF-supported programmes, the Russian and Turkish authorities opted for stability-oriented macroeconomic policies to limit the risk that the earlier domestic imbalances might resurface. Indeed, there was a general commitment towards improved fiscal discipline which led to a reduction in the large budget deficits and debts. In Russia, some of the windfall of large oil-related

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precautionary motive for savings among households. Moreover, the credible fiscal consolidation led to the expectation of lower taxation in the future and boosted consumption (an implication of the Ricardian equivalence). Notwithstanding a reduction in overall current expenditure, the social security system was expanded and this provided a further reason for a reduction in precautionary savings. More favourable country risk assessments by rating agencies contributed to lower interest rates, possibly further reducing the incentive to save. Similarly, improved access to credit after the stabilization of the banking sector eased liquidity constraints and allowed for better consumption smoothing over time. Finally, demographic factors may have also had a role given the high youth dependency ratio.

[16] According to Solmaz and Sanjani (2015), external shocks account for more than 50 per cent of GDP growth dynamics in Turkey. IMF (2013) and Özatay (2014) also find that the correlation between economic growth and capital inflows is much higher than in other peer countries. Moreover, capital flows are more volatile, as Turkey relies on less stable sources of foreign funding.

[17] Different studies report estimates of the elasticity of GDP to oil prices for the Russian economy in the order of 0.15-0.25. See, for example, Rautava (2013) and Korhonen and Ledyaeva (2010).

[18] According to Kudrin and Gurvich (2015), the oil and gas windfall, which had played a significant but not exclusive role in spurring GDP growth in Russia until the global financial crisis of 2008, was the only growth driver in the subsequent recovery. Covi (2014) finds that not only has the Russian economy increased its dependency on the resource sector, but it is also undergoing a process of de-industrialization, making it a case of 'Dutch disease'.

[19] Fiscal policies were mostly loose and, with endemically high government deficits, monetary policy was generally subordinated to the need to finance public debt. Inflation reached double- or even triple-digit values and was extremely volatile, while high real interest rates attracted foreign capital, mostly of a short-term nature. This was a key factor in explaining the boom-bust dynamics both in Russia and in Turkey.

revenues during the phase of strong global oil demand was used to build buffers against future shocks.[20] As a by-product, these buffers helped insulate the domestic economy from potential overheating and undesirable exchange rate appreciation. In 2004 the inflation rate in Turkey was reduced to single-digit figures also thanks to changes in the institutional arrangements for monetary policy, in particular legislation making the central bank independent with price stability as its primary objective.[21] With the adoption of two specific laws on public finance (the Public Finance and Debt Management Law and the Public Financial Management and Control Law), the central government strengthened its debt management, subjected the extension of guarantees to strict rules and enhanced planning and budget reporting procedures.

The brisk economic expansion occurring in both countries in the years before the global crisis brought about a surge in firms' and households' demand for financing, which the domestic supply of funds was not able to match. Against the backdrop of easy international financial conditions, Russian and Turkish entities had an incentive to borrow abroad, with the result of escalating private gross external debt (see Section 5). The increased dependence on potentially fickle foreign financing made both the economic and financial systems very vulnerable to a sudden reversal in capital flows. The global financial crisis of 2008-09 hit the Turkish and Russian economies and their financial systems strongly, but both countries were able to bounce back relatively fast. However, this occurred in connection with a progressive change in the macroeconomic policy paradigm after the crisis. In Russia, there was a greater involvement of the government in bolstering economic activity through demand support measures. Indeed, the new windfall originating from sizeable oil-related revenues was partly used to directly finance investments and sustain households' disposable income through, for example, a reform of the pension system and an increase in public-sector salaries.[22] In Turkey, a credit-fuelled boom in domestic demand, in the context of rapidly surging capital inflows and expansionary monetary and fiscal stances, was not adequately offset by counter-cyclical macroprudential policies. The monetary authorities in particular were confronted with the difficult task of taming inflationary pressures while avoiding potentially destabilising capital inflow surges.[23] In Turkey, there were repeated cycles of loose monetary policy and strong credit expansion followed by belated policy tightening.

Thus, in the aftermath of the 2008-09 crisis, weak macroeconomic management contributed to the re-emergence of imbalances, leaving both economies vulnerable to external shocks. Against the background of heightened global risk aversion, since mid-2013 Turkey has experienced severe exchange rate market pressures and has been among the most affected EMEs, due to its current account deficit and reliance on external sources of financing. In this context the CBRT was periodically forced to sharply tighten

[20] Buffers against future external shocks were built up through the creation of a sovereign wealth fund (the Stabilization Fund, later split into the Reserve Fund and the National Welfare Fund) in 2003, and the rapid accumulation of foreign exchange reserves.

[21] In 2001 the Central Bank of Turkey (CBRT) was granted full operational independence and tasked with the primary goal of price stability; it was also forbidden to finance the Treasury directly. Following the collapse of the currency peg, the key challenge for the CBRT was to establish a new credible nominal anchor. After a transition period characterized by an 'implicit' inflation targeting (IT) regime based on flexible exchange rates and the control of monetary aggregates, a full-fledged IT framework was later adopted in 2006.

[22] For the first time since 1999, the fiscal balance turned into a deficit in 2009, partly as an effect of the crisis, and after that it has never again recorded the large surpluses of the early 2000s.

[23] Consumer price inflation rose to nearly 11 per cent in 2011, twice the target level, and the current account deficit ballooned to a record-high of almost 10 per cent of GDP, reflecting, among other factors, oil price increases. Raising policy interest rates to contain inflation in this context would encourage capital inflows, which in turn would push up the real exchange rate, hurting international competitiveness and fuelling domestic demand. In an effort to cope with such daunting challenges, in late 2010 the CBRT moved away from a pure inflation-targeting regime toward a more unconventional approach, adopting financial stability as an additional objective alongside price stability.

its monetary stance, but it was not able to avoid a sharp depreciation of the lira against the dollar (more than 25 per cent over the last two years) and an increase in inflation. In Russia, in the context of the geopolitical crisis in Ukraine, the imposition of international sanctions targeted to the financial sector practically shut off access to foreign capital markets in mid-2014.[24] The impact of the sanctions was then amplified by the plunge in oil prices that began in the second half of 2014, triggering a sell-off of the ruble. The Central Bank of Russia (CBR) reacted strongly and somehow limited the depreciation of the ruble, which has nevertheless lost more than 50 per cent of its value against the dollar over the last two years. This contributed to a significant increase in domestic price inflation (which rose to 16.9 per cent in 2015).[25] Russia entered a deep economic recession in 2015, driven by a contraction in domestic demand amid falling real wages, a higher cost of capital and weakened business confidence.

4. The institutional environment: reforms and quality of institutions.

Together with a stable macroeconomic environment, a well-functioning institutional framework is a fundamental prerequisite for the full development of a country's financial system.[26] In a country where the institutional environment can establish and enforce private property rights, support private contractual arrangements and protect the legal rights of investors, lenders are more willing to finance firms and capital markets can flourish (Beck and Levine, 2005).

By the turn of the century, the institutional and business environments in Russia and Turkey were still marked by weaknesses. After the banking and currency crises of the late 1990s and early 2000s had revealed a number of flaws, in the early 2000s a strong reform agenda gathered momentum in both countries, supported by the direct involvement of IFIs and, in the case of Turkey, the opening-up of negotiations for the accession to the EU. In that period, institutional reforms adopted by both countries covered a wide spectrum of areas, including those directly affecting the financial and banking sectors.

In Turkey, for example, the 2002 Procurement Law introduced a more transparent bidding procedure for public procurement with a view to reducing corruption. On the financial side, in order to correct the fundamental shortcomings of the previous regulatory and supervisory framework, an independent public institution, the Banking Regulation and Supervision Agency (BRSA), was delegated with the exclusive right to grant licenses and supervise banks, as well as to run the SDIF, the institution entrusted with the responsibility to manage the deposit insurance scheme and take over and restructure insolvent banks.[27] A comprehensive revision of the regulatory and supervisory framework was performed and new and stricter

[24] The sanctions targeted Russian state-owned credit institutions with over 50 per cent public ownership and development finance institutions (Sberbank, VTB, Gazprombank, Russian Agricultural Bank and VEB), as well as selected corporations operating in the oil sector (Rosneft, Gazpromneft, Transneft).

[25] The CBR reacted with a large emergency hike in the policy rate (by 650 basis points, to 17 per cent), to dampen depreciation pressures and rein in inflation expectations.

[26] Applying the concept of a financial possibility frontier and benchmarking, recent works by Barajas *et al.* (2013) and Almarzoqi *et al.* (2015) show that high macroeconomic volatility and low institutional quality negatively affect financial depth and stability.

[27] A new Banking Law was enacted in 1999 to strengthen supervisory standards and bring them in line with EU directives, international practices and the core principles of the Basel Committee. The new law stipulated the establishment of the BRSA as an independent entity and as the sole authority tasked with the surveillance of banks, but political pressures delayed the appointment of the board members until August 2000. An amendment to the Banking Law in mid-2001 strengthened the independence and authority of the BRSA. In 2003 the SDIF achieved autonomous status.

rules were adopted regarding, for example, capital adequacy, risk management and international accounting standards.

In Russia, the authorities implemented overdue reforms that were necessary to overcome the legacy of the Soviet era. These primarily addressed basic institutional issues and the creation of a business-friendly environment (Kudrin and Gurvich, 2015). Reforms introduced in the field of contract enforcement and property rights made it easier for creditors to monitor borrowers and enforce the collection of payments. Other important reforms specifically concerned the financial and banking sectors, including the introduction of the IFRS standards for financial statements in 2003 and of insurance for household deposits a year later. In 2004 the authorities also opted for a gradual removal of capital account restrictions, which had been reintroduced to limit capital flight in the wake of the 1998 financial crisis.[28]

However, this strong reform push lost some momentum over the years, as reform fatigue gradually took hold. In Russia, according to Dabrowski (2015), this occurred as early as 2004, when the share of state ownership in enterprises started to increase again, especially in the resource and banking sectors, inverting the trend of the previous years. Resource-dependent economies such as Russia are particularly exposed to the so-called 'institutional trap' (Guriev *et al.*, 2009). If institutions are initially weak, the rents that can be extracted by politicians are high and this tends to slow down or even reverse the development of institutions. Similarly in Turkey, once the IMF programme was over and the prospect of EU accession was deferred, the authorities' commitment to the improvement of the institutional environment diminished significantly as early as 2007 (Acemoglu and Ucer, 2015).[29]

This broad picture tends to be confirmed, for both countries, by the evolution of the World Bank Worldwide Governance Indicators, which provide a good metric for several aspects of the quality of institutions over a long time span. The year 2004 in Russia and the year 2007 in Turkey can be considered the turning points in the respective reform cycles (Figure 12, Panels A and B). Looking at the most recent indicators produced by several international organizations, both countries rank unfavourably compared with other large EMEs in terms of their institutional and business environment (Figure 13, Panels A, B, C and D).

Russia tends to fare worse than Turkey based on this evidence, as it is always in the last positions and with a substantial distance from the best performer. Widespread corruption and limited trust in the independence of the judiciary system are among the first issues that need to be tackled in order to reduce the cost of doing business and increase the trust of investors (WEF, 2014). A key challenge for Russia remains the weak definition and protection of private property rights, something that not only discourages investment decisions, but also limits bank lending activity (for example, by de facto restricting the range of assets that can be used as collateral). Moreover, while recent amendments to the Civil Code have contributed to align corporate governance to international standards, weak protection of minority stakeholders' interests still limits the attractiveness of the Russian stock market.

Turkey, even if better positioned, still needs to implement structural reforms in a range of areas. The rule of law is undermined by corruption and by an inefficient judicial system that is subject to political interference (HF, 2016). Recent interventions, such as a law enacted in 2011 that reintroduces the possibility of

[28] The process was completed in 2006 with the lifting of the last capital controls. In Turkey this process had been completed well before, in 1989.

[29] Acemoglu and Ucer (2015) mention, as an example, the frequent breaches of the newly enacted procurement law as an indication of the worsening in economic institutions over recent years.

inspections by the relevant ministry on regulatory agencies, suggest that the principle of independent regulation is not yet fully embedded (WB, 2014). Moreover, improvements in the insolvency framework, which is now particularly inefficient due to its lengthy proceedings and low average recovery rates, would boost the climate for entrepreneurship (WB, 2016).

Concerning banking supervision and the financial regulatory framework specifically, authorities in both countries are in the process of adopting legislative amendments to implement the Financial Stability Board's and Basel Committee's recommendations on capital adequacy, leverage, liquidity requirements and management of systemic risks. According to the results of the recent Regulatory Consistency Assessment Programme of the Basel Committee completed in March 2016, the banking supervisory authorities in Russia and Turkey (the CBR and the BRSA, respectively) were able to significantly strengthen their prudential frameworks. Both countries are now considered compliant with the minimum Basel Capital and Liquidity Coverage Ratio standards.[30] However, the new regulations have yet to be fully applied in practice in Russian and Turkish banks, for instance in the implementation of the Internal Ratings-Based approach to credit risk. In Russia, in 2013 the Federal Financial Market Services (the securities and insurance supervisor) was folded into the CBR (the banking supervisor) to strengthen the ability to carry out consolidated supervision, given the prevalence of lending to related parties (OCED, 2014).

5. Financial vulnerabilities

Macroeconomic volatility and inadequate institutional and business environments are one of the root causes underlying the low level of trust placed by economic agents in the financial systems of Russia and Turkey. Economic and institutional weaknesses not only hamper the development of the financial system but also contribute to the build-up of vulnerabilities. Especially during crisis periods, agents may seek refuge in dollar assets, raising the level of dollarization in the economy. In the current, uncertain global environment, protractedly low oil prices and volatile international capital flows pose serious potential challenges to the overall stability of the financial systems.

External debt – As previously documented, Russia and Turkey have relatively small domestic capital markets, and non-financial corporates and financial institutions have to tap into international markets to cover their funding needs at the margin. While public external debt has been significantly reduced over the years, reflecting sounder budgetary policies in both countries, since the turn of the century the private component has ramped up and now represents the major share of total external debt.

Since the early 2000s gross external debt in Russia has only slightly contracted as a share of GDP, from 44 per cent in 2002 to about 40 per cent in 2015 (Figure 14),[31] reflecting two diverging trends: a dramatic shrinking of the public sector component, from almost 70 per cent of total external debt in 2002 to less than 10 per cent, and a surge in private sector external debt (banks and non-financial corporations), from 14 per cent of GDP in 2002 to about 37 per cent in 2015. The accumulation of gross external debt by the Russian private sector was particularly fast between 2000 and 2007, when banks and large non-financial

[30] The reform effort deployed by the Russian authorities was particularly intense, but the 9th progress report on the adoption of the Basel regulatory framework showed that the country still needed to complete its transition to many Basel II (2.5) principles (BIS, 2015).

[31] The short-term component (at original maturity) currently accounts for less than 10 per cent of the total, from a peak of more than 20 per cent in 2007.

corporations found it more convenient to raise funds abroad. This occurred against the backdrop of low international interest rates and compressed spreads for borrowers, given the strong macroeconomic fundamentals, while the ruble-dollar exchange rate was seen as a one-way bet, reflecting resolute intervention by the CBR to resist nominal appreciation.[32] While temporarily drying up foreign financial sources, the 2008 global financial crisis did not significantly change this trend. However, since the turnaround in oil prices in mid-2014 and following the introduction of the international sanctions, private external debt has decreased sharply, as Russian companies, including those not directly hit by the restrictive measures, were shunned by international investors.[33] At the same time, owing to the deep economic recession and the substantial depreciation of the ruble vis-à-vis the USD, the overall external-debt-to-GDP ratio increased by almost 10 percentage points between 2014 and 2015. Non-financial corporations account for more than 60 per cent of total external debt, though their debt is in large part represented by liabilities to foreign direct investors (intercompany loans account for almost 35 per cent of total external corporate debt). As most FDI into Russia reflects the repatriation of domestic capital, it may provide a buffer against external shocks, as these funds have been historically more stable in periods of turbulence.

External debt in Turkey drastically shrank in the aftermath of the 2001 crisis, from around 56 per cent of GDP to 38 per cent in 2008, driven by falling government debt as a result of the more prudent fiscal stance and also by the strategic decision to reduce the share of foreign-currency-indexed debt. The debt composition by issuer has significantly changed in favour of the private sector, which in 2008 came to account for around 75 per cent of total external debt, from 30 per cent in 2002. Gross external debt has been on the rise again since 2011, reaching more than 50 per cent of GDP in 2015, buttressed by the continuous increase in the external debt of corporates and, especially, financial institutions. The combined external debt of both sectors totalled 45 per cent of GDP in 2015, up from 25 per cent in 2011: more impressively, financial institutions' external liabilities doubled to more than 25 per cent of GDP in 2015, reflecting the greater recourse to external funding by the banking sector. In addition, the short-term component, which for almost three-fourths is represented by banks' external liabilities, has fluctuated around 30 per cent of total external debt during the last few years,[34] a share higher than that at the end of the past decade. Notwithstanding the presence of mitigating factors, such as a smooth quarterly debt repayment schedule, the Turkish economy is significantly exposed to risks stemming from its external debt burden, especially given that a large share of it, including debt with short-term maturities, is indexed to global interest rates.

Dollarization and currency mismatch – Historically, asset and liability dollarization in Russia and Turkey has been a widespread phenomenon. In the face of rising macroeconomic volatility during the 1990s and early 2000s, it was common for households and corporates in Russia and Turkey to keep their savings in foreign

[32] Since 1999 the CBR had implemented a managed floating exchange rate regime. In 2005, it introduced a dual-currency basket (consisting of the US dollar and the euro) as the operational indicator of its exchange rate policy. A fixed corridor was set for this operational indicator (the operational band) and FX interventions were implemented at its margins to limit excessive fluctuations vis-à-vis the dual-currency basket. In February 2009, the CBR set a rule for automatic shifts of the operational band connected to the accumulated amount of FX interventions, and fixed the width of the fluctuation band at 2 rubles; the band was subsequently gradually widened in order to achieve a transition toward a more flexible exchange rate regime. In 10 November 2014, facing strong speculative pressures on the currency, the CBR abandoned the operational band and the related automatic FX interventions and allowed the ruble to float.

[33] Since its peak in June 2014, banks and non-financial corporations have reduced their external debt by USD 185 billion (from USD 659 billion to USD 474 billion).

[34] At original maturity.

currency (cash or deposits). Currency substitution responded to the need to protect the purchasing power of money, income and assets in domestic currency from the perverse effects of exchange rate devaluations and high inflation rates. Since the early 2000s, following the macroeconomic stabilization efforts, dollarization has generally trended down in both countries, although during the last global financial crisis this trend temporarily reversed in Russia. More recently, in a context of renewed high volatility, jitters in financial markets and political uncertainty, deposit dollarization has trended up again, particularly in Russia, likely reflecting a lack of confidence on the part of the public in the authorities' ability to maintain macroeconomic stability (CBRT, 2015; Barisitz, 2015).

Russia and Turkey share similar features as regards the sectors most affected by dollarization and currency mismatch. While households have limited access to bank credit in foreign currency,[35] a significant share of bank loans to non-financial corporations is denominated in foreign currency in both countries. Overall, lending in foreign currency to unhedged borrowers is not a pervasive phenomenon in Russia. Since foreign currency loans are mostly extended to corporations that are naturally hedged through oil export revenues, risks for the overall stability of the Russian financial system are more limited. In Turkey, lending in foreign currency to non-financial corporations has increased to very high levels in recent years, reflecting institutional and cyclical factors,[36] exposing this sector to adverse movements in the exchange rate. As of end-2015 the private non-financial sector's foreign exchange liabilities (domestic and international) totalled 40 per cent of GDP, with the (short) net foreign currency position standing at more than 25 per cent of GDP. As a partly mitigating factor, companies have a long foreign currency position at the shorter end of the maturity range, reflecting a high share of foreign currency deposits and the long-term maturity of a large part of their FX debt. Via balance sheet effects, however, the Turkish financial system is not likely to remain insulated from adverse movements in the exchange rate and international capital flow cycles.

Credit dynamics – Since the turn of the century both economies have experienced a prolonged phase of credit growth, not always supported by an adequate expansion of the deposit base. Nevertheless, they face different challenges at the current juncture, arising from the respective stages in the credit cycle and the different composition of bank funding. A striking difference stands out when one looks at the dynamics of the credit-to-GDP gap since the early 2000s: while in Russia the gap has been volatile, it has risen continuously in Turkey (Figure 15).[37]

In Russia, the credit-to-GDP ratio steadily increased between 2002 and 2008 on the back of ballooning bank lending to firms and households. After falling in the aftermath of the global financial crisis, the credit-to-GDP gap started widening until mid-2014, boosted by the new wave of oil-related windfalls, largely intermediated by banks. Since then, credit flows have sharply decelerated, reflecting the widespread effects of international sanctions and plummeting oil prices, which badly hit the broader economy. This was also associated to an increase in the share of non-performing loan (NPL) to over 8 per cent of total loans at end-2015 (Figure 16), a level not witnessed since the 2008-09 crisis.[38] The deterioration in loan quality has

[35] Foreign currency loans to households are limited to 2-3 per cent of total loans in Russia, while in Turkey households are prohibited from taking bank loans in foreign currency.

[36] Among institutional factors, an important change was the adoption of a regulation in 2009 widening the set of corporations allowed to borrow from banks in foreign currencies.

[37] The credit-to-GDP gap is the difference between the ratio of current-credit-to-GDP and its long-term trend, as a percentage of the long-term trend. The long-term trend is calculated with a one-sided HP filter assuming λ=400,000.

[38] The increase has been partially limited by regulatory forbearance decisions allowing financial institutions some degree of flexibility in classifying overdue loans and provisioning.

been driven in particular by unsecured lending to households and lending to related parties ('connected lending'), a widespread phenomenon in the Russian banking sector.[39]

By contrast, in Turkey the credit-to-GDP gap has risen steadily since the early 2000s. In the first part of the period the increase reflected the combination of improving domestic and external conditions and the phasing-in of a more intermediation-oriented banking business model;[40] later, credit growth was fuelled by increasingly short-term capital inflows intermediated by the banking sector. Since 2015 the credit-to-GDP gap, having reached more than 15 per cent, has started to stabilize, reflecting a softening in lending growth due to heightened external and domestic uncertainty and the effects of macroprudential measures aimed at containing unsecured borrowing on the part of households. Against this background, the strong growth in consumer credit may have been accompanied by weakened risk management, and this could over time lead to deteriorating bank balance sheets. At the moment, however, the NPL ratio remains low (3.2 per cent in 2015).

Funding challenges - In both countries the growth in the deposit base has lagged behind the expansion in bank credit, resulting in a wide funding gap, as shown by loan-to-deposit ratios above 100 per cent. Though this phenomenon may be considered a structural characteristic of the Russian banking system, a loan-to-deposit ratio at over 100 per cent is rather a novelty in Turkey, where it only exceeded that threshold in 2012, but has continued to rise ever since (Figure 17).

The ratio of deposits to total liabilities, which has hovered around 50 per cent in both countries, has been declining recently, more markedly in Turkey. Traditionally, in both countries deposits are characterized by a very short-term maturity; given the lengthening in asset maturity in recent years, this has exacerbated the maturity mismatch in banks' balance sheets. A large share of demand or short-term deposits also means that deposits are subject to sudden withdrawals. This occurred in late 2014 and in early 2015 in Russia, when the authorities had to double the limit of deposit insurance and adopt other measures to reduce liquidity pressures.[41]

Against this backdrop, and in light of the relatively low level of development of the domestic securities markets, both the Turkish and the Russian banking systems have had to turn to alternative sources of financing. In Turkey, banks have increasingly resorted to international markets in the aftermath of the global financial crisis, a trend that has also been accompanied by a shortening in funding duration (OECD, 2012). In 2015, gross external liabilities were about 25 per cent of banks' overall liabilities (excluding capital).[42]

[39] To deal with significant weaknesses in the banking system, since mid-2013 the CBR has followed a resolute strategy aimed at cleaning up and consolidating the sector, a process which has led to the revocation of the licenses of nearly 200 banks. As a consequence, the number of banks dropped from 859 to 676 as of early 2016.

[40] Until the 2001 crisis erupted the Turkish banking system's business model was centred on funding government needs, something that tended to crowd out the private sector's access to funds: notably, the share of loans in total assets was less than 30 percent in those years, while government securities were the main asset class in banks' books.

[41] The dearth of deposits affects Russian banks quite differently depending on their size and ownership structures. While large banks and state-owned banks have a broader and more stable deposit base thanks to (implicit) government guarantees, small and medium-sized private banks are more likely to face a liquidity squeeze during episodes of tension, given their limited access to domestic funding sources, exacerbated by depositors' flight to quality.

[42] In an effort to counter the shortening of duration, the CBRT has recently enacted a series of measures to extend the maturities of non-core liabilities, and external funding has switched to longer-term sources, which accounted for about 60% of the total at end-2015 (CBRT, 2015).

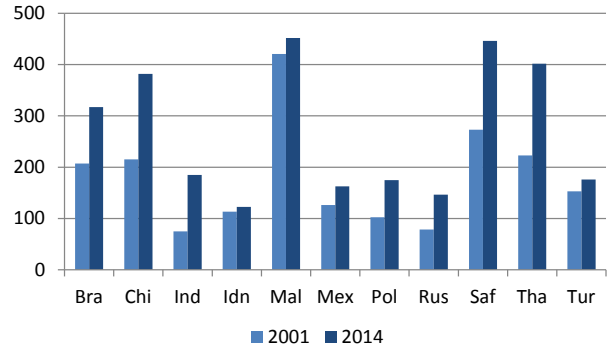
Unlike in the Turkish case, since 2009 the structural funding gap of the Russian banking system has been increasingly covered through refinancing with the central bank.[43] The CBR stepped up its efforts to provide the banking system with liquidity again in late 2014 and early 2015: its funding as a share of total bank liabilities jumped to 12 per cent in 2014 – a peak reached only during the global financial crisis – but then gradually declined to 7 per cent in 2015. At the same time, most small and medium-sized credit institutions, which are not eligible to obtain refinancing from the central bank, let alone tap into international financial markets, are crucially dependent on the domestic interbank market, which has proven not always effective in redistributing liquidity across the system during periods of tension.

[43] The Ministry of Finance also provides regular liquidity to the banking system by auctioning off excess cash in its Treasury account.

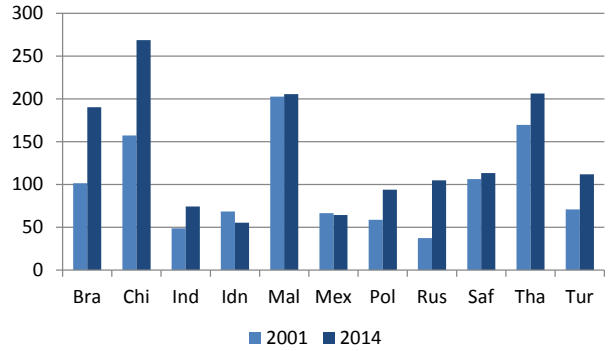
Tables and figures

Figure 1 Financial markets size as % of GDP

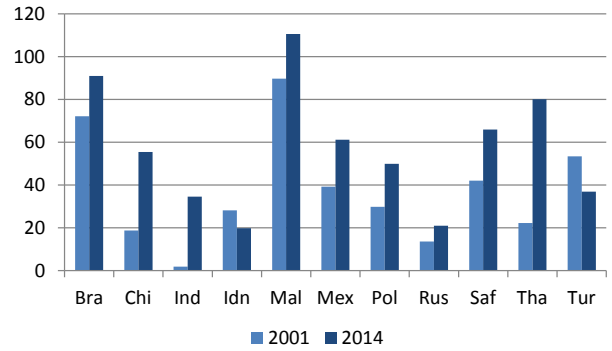
Panel A Market size of banks, bond and equities (1)



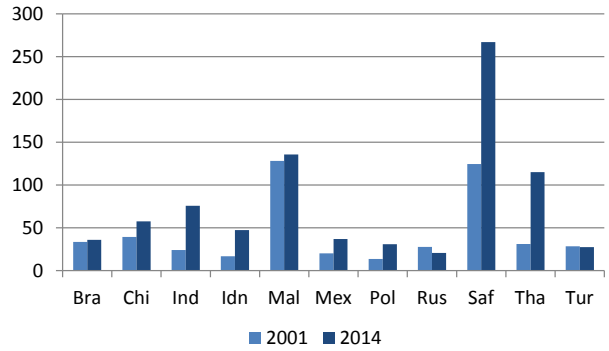
Panel B Bank assets



Panel C Outstanding bonds

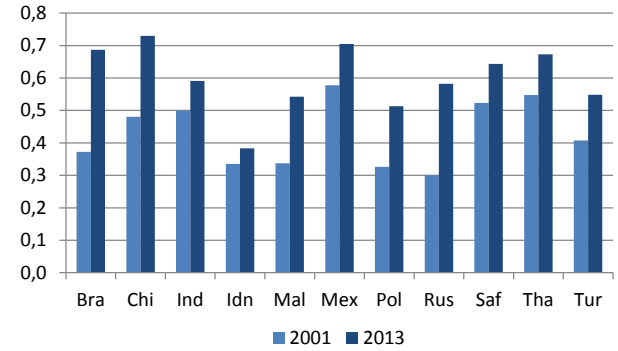


Panel D Stock market capitalization



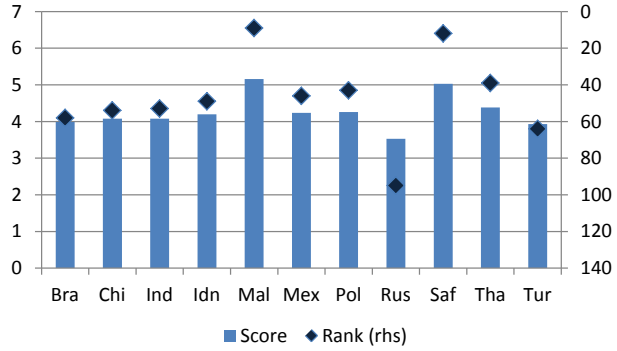
Source: BIS, IMF *International Financial Statistics* and *World Economic Outlook*, National Central Banks, WB *World Development Indicators* and World Federation of Exchanges.
(1) Sum of total assets of domestic banks, outstanding debt securities issued by residents in domestic and international markets and stock markets capitalization.

Figure 2 Financial development index



Source: Sahay *et al.* (2015).
Note: The index ranges from 0 to 1; a higher value implies higher development.

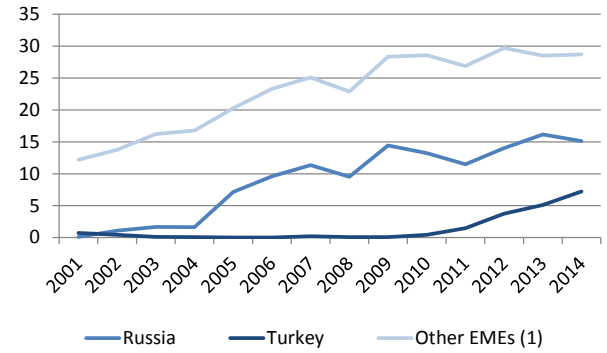
Figure 3 Financial market development indicator



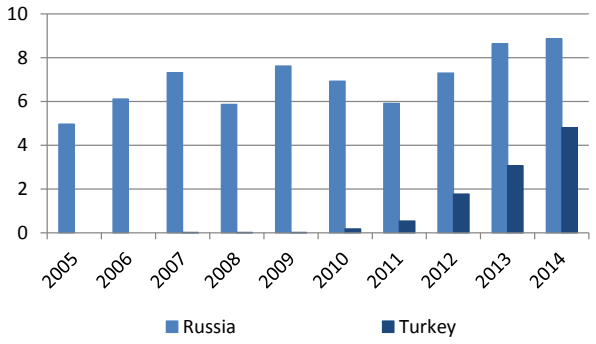
Source: WEF *Global Competitiveness Report 2015-2016*.
Note: Score (scale ranges from 1 to 7; a higher value implies higher development) and rank (inverse scale) out of 144 economies analysed in the Report.

Figure 4 Private outstanding debt securities as % of GDP

Panel A Total (domestic and international) debt securities

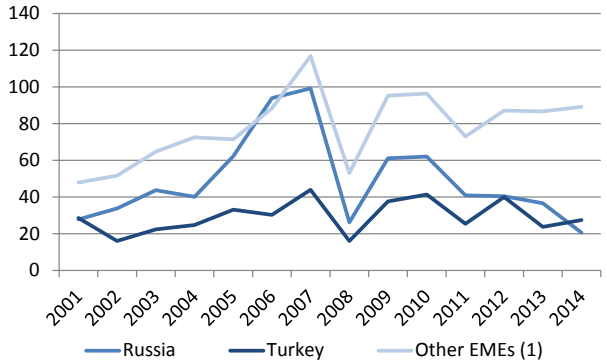


Panel B International debt securities, by residency



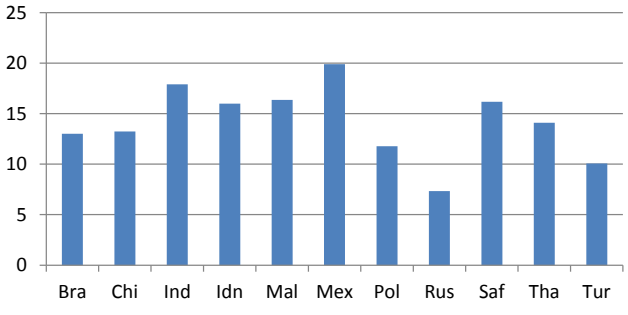
Source: BIS and IMF *International Financial Statistics*.
(1) Average of Brazil, China, India, Indonesia, Malaysia, Mexico, Poland, South Africa and Thailand.

Figure 5 Stock market capitalization as % of GDP



Source: IMF *World Economic Outlook* and World Federation of Exchanges.
(1) Average of Brazil, China, India, Indonesia, Malaysia, Mexico, Poland, South Africa and Thailand.

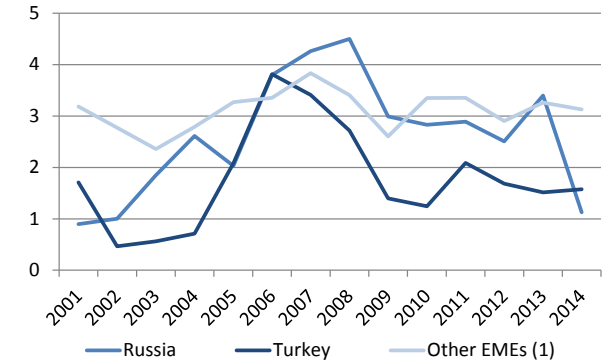
Figure 6 Stock market price/earnings, 2008-14 avg.



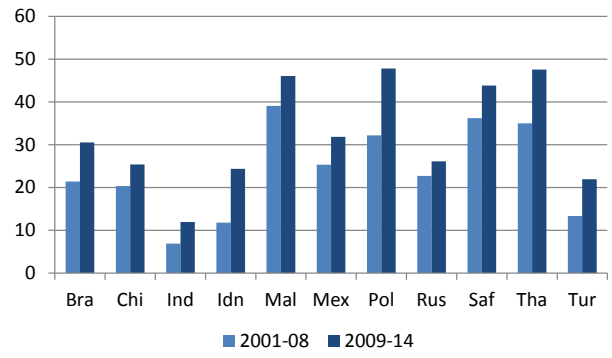
Source: Thomson Reuters *Datastream*

Figure 7 Inward foreign direct investment as % of GDP

Panel A Inflows

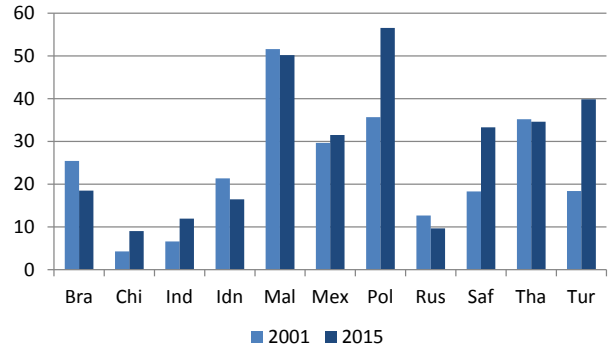


Panel B Stocks



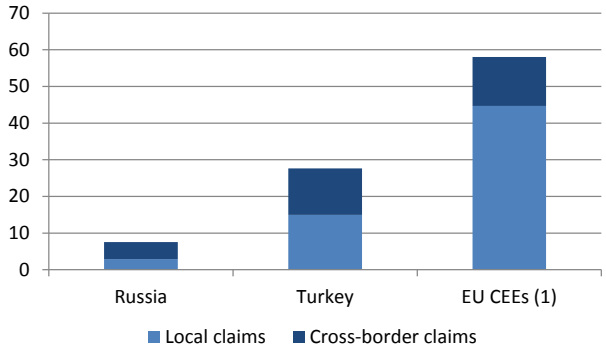
Source: IMF *International Financial Statistics* and *World Economic Outlook*.
(1) Average of Brazil, China, India, Indonesia, Malaysia, Mexico, Poland, South Africa and Thailand.

Figure 8 Foreign claims as % of GDP



Source: BIS *Consolidated Banking Statistics*, immediate counterparty basis.
Note: Foreign claims are the sum of cross-border and local claims.

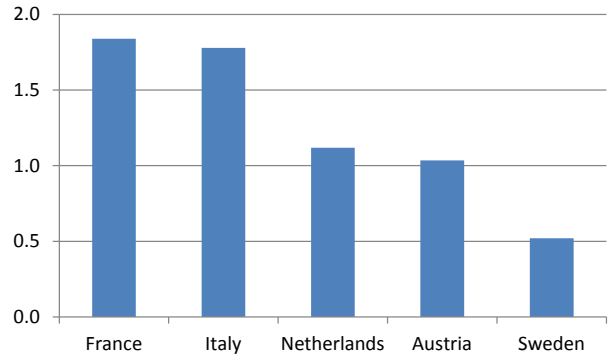
Figure 9 Cross-border and local claims as % of GDP



Source: BIS *Consolidated Banking Statistics*, ultimate risk basis.
(1) Average of Croatia, the Czech Republic, Hungary, Poland and Romania.

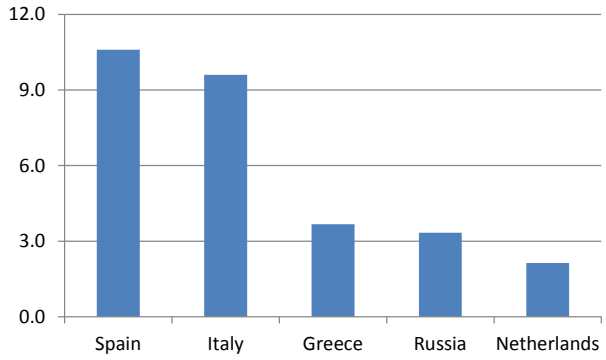
Figure 10 Market share of foreign owned banks by selected country of origin, as % of total assets

Panel A Russia



Source: Bankscope, CBR.

Panel B Turkey



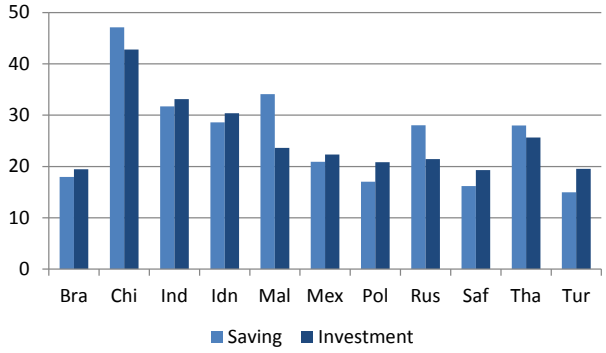
Source: Turkish Banking Association, CBRT.
Note: Joint ventures with local domestic investors are considered as foreign-owned banks.

Table 1 GDP, Investments and consumer price index yearly growth, avg. and volatility in 2000-14

COUNTRY	GDP		INVESTMENT		CPI	
	AVG	STD	AVG	STD	AVG	STD
Brazil	3.3	2.2	4.2	6.3	6.5	2.5
China	9.7	1.8	12.0	4.3	2.3	2.0
India	7.0	2.1	8.6	6.7	6.8	2.6
Indonesia	5.4	0.9	7.5	4.1	7.4	2.9
Malaysia	5.1	2.4	6.6	7.2	2.2	1.2
Mexico	2.3	2.6	3.0	4.8	4.8	1.5
Poland	3.6	1.7	4.2	6.9	3.1	2.4
Russia	**4.5**	**4.1**	**7.9**	**8.7**	**11.5**	**4.7**
South Africa	3.2	1.7	5.8	6.1	5.8	2.3
Thailand	4.1	2.5	4.6	6.9	2.6	1.6
Turkey	**4.2**	**4.5**	**5.5**	**16.1**	**17.0**	**17.3**

Source: IMF *World Economic Outlook*.

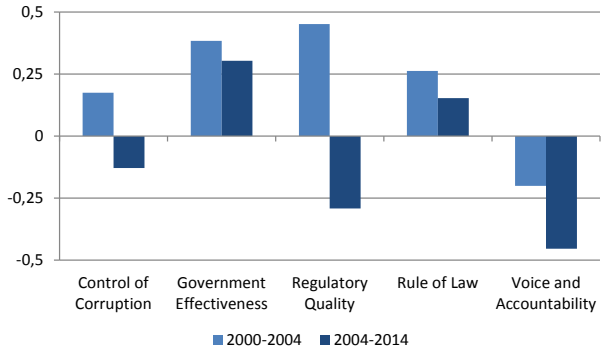
Figure 11 Saving and investment rates as % of GDP, avg. in 2001-14



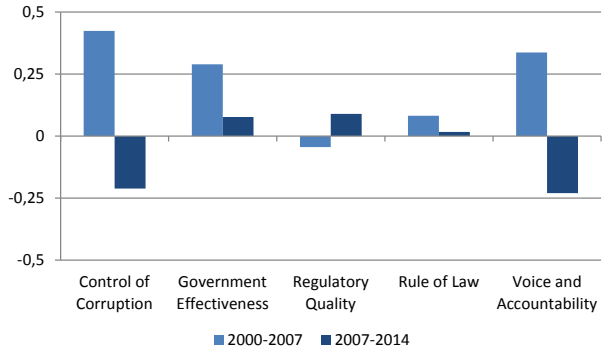
Source: IMF *World Economic Outlook*.

Figure 12 Worldwide governance indicators, change over the period considered

Panel A Russia



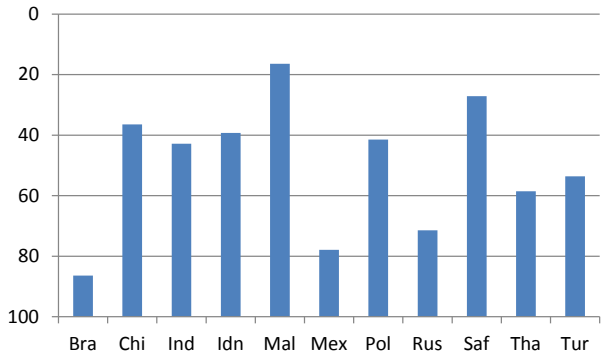
Panel B Turkey



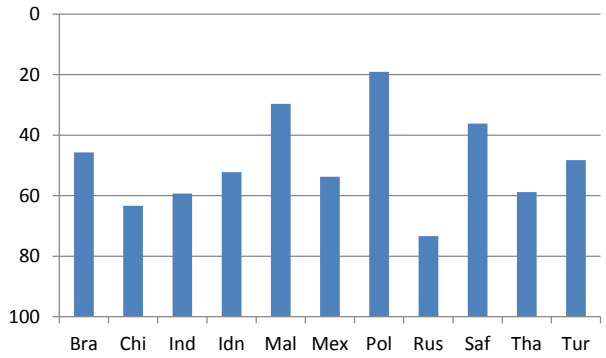
Source: WB *Worldwide Governance Indicators 2015*.
Note: All the indicators vary in a range between -2.5 (weak) and +2.5 (strong).

Figure 13 Institutional and business indicators

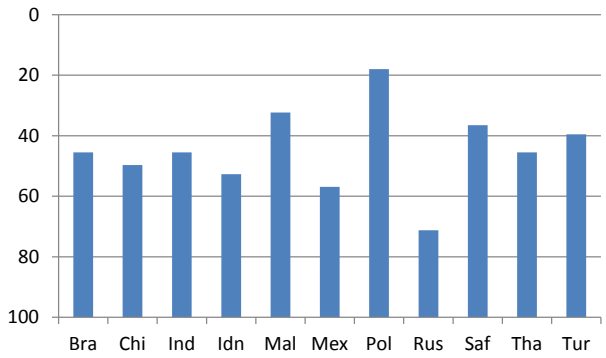
Panel A Global Competitiveness Index



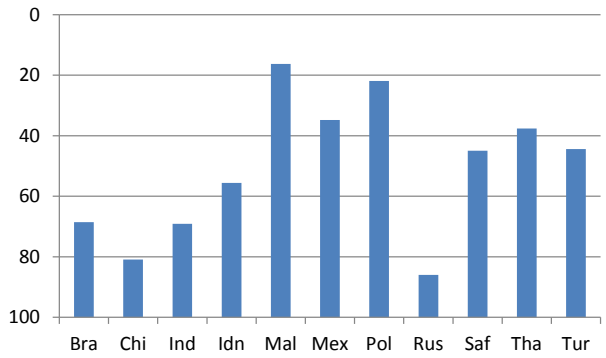
Panel B Worldwide Governance Indicator



Panel C Corruption Perception Index

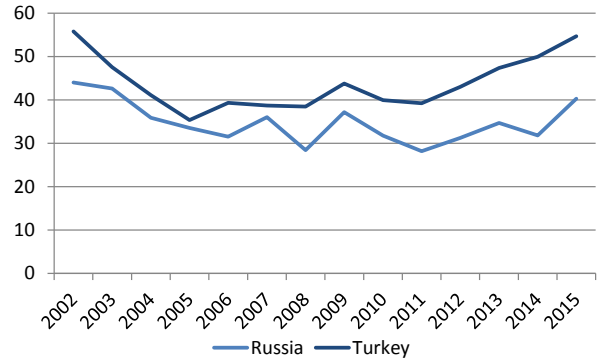


Panel D Index of Economic Freedom



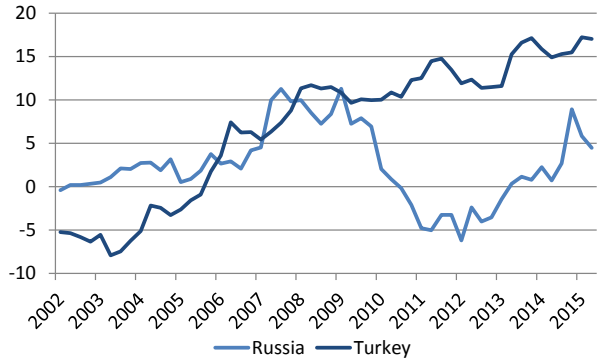
Source: WEF *Global Competitiveness Report 2015-2016*, WB *Worldwide Governance Indicators 2015*, Transparency International *Corruption Perception Index 2015,* Heritage Foundation *Index of Economic Freedom 2016*.
Note: Percentile rank (inverse scale) in the last available Reports; for the Worldwide Governance Indicators the ranking is based on the average of six sub-indicators (Control of Corruption, Government Effectiveness, Political Stability, Regulatory Quality, Rule of Law, Voice and Accountability).

Figure 14 External debt as % of GDP



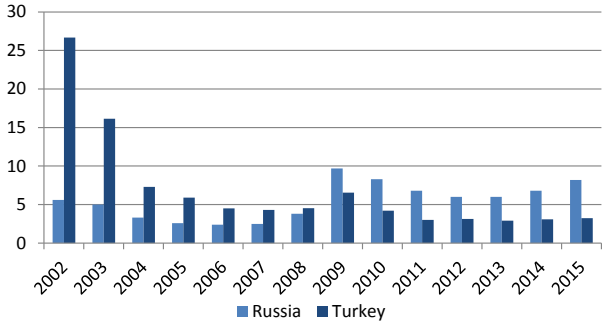
Source: IMF *World Economic Outlook*, CBR and CBRT.
Note: 2015 data are as of September.

Figure 15 Credit-to-GDP gap as % of long-run trend



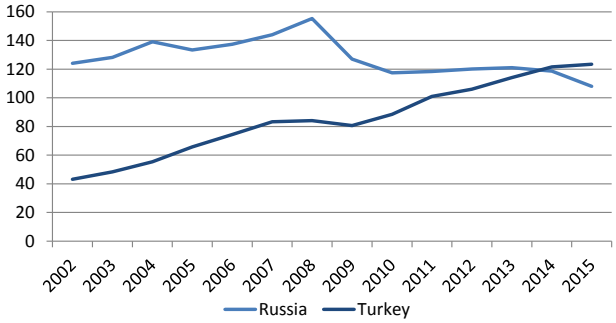
Source: BIS, IMF *International Financial Statistics*.
Note: The credit-to-GDP gap is the difference between the current-credit-to-GDP ratio and its long-term trend, as a percentage of the long-term trend. The long-term trend is calculated with a one-sided HP filter assuming λ=400,000.

Figure 16 NPLs as % of total loans



Source: CBR and CBRT.

Figure 17 Loan-to-deposit ratio, %



Source: CBR and BRSA.

Appendix 1. The financial system in Russia

1. An overview of the Russian financial system and its main segments

After a turbulent transition in the 1990s, the Russian financial system has undergone an impressive development (Figure A1.1). However, as shown in the main article, in international comparative terms its size remains relatively small. This is striking, considering that Russia is a country with a relatively high income per capita, and has traditionally been characterized by a high saving rate. Indeed, long-lasting weaknesses in the economic and institutional environment have hindered the domestic financial system's ability to channel this large pool of national saving into productive investment. The lack of a broad and diversified domestic investor base, due to the scarcity of institutional investors such as pension funds, investment funds and insurance companies, and the small fraction of the population holding securities,[44] has also hampered the development of Russia's capital markets.

In the early 2000s the equity market was still in its infancy.[45] After ramping up to almost 100 per cent of GDP in the eve of the 2008 global financial crisis, the market capitalization swiftly collapsed to 25 per cent in its immediate aftermath. Subsequently it hovered around 40 per cent of GDP, before shrinking to 20 per cent in 2014 after the last financial crisis. The equity market is highly concentrated, with the combined share of the 10 largest companies accounting for more than 60 per cent of total market capitalization in 2012. As a large share of outstanding stocks is issued by oil and gas companies, volatility in the equity market has tended to be mainly driven by oil prices, with three notable exceptions: in the 2008 crisis; during the 2013 'taper tantrum' (when markets reacted to the expectation of an early end to the FED's massive liquidity programme); and more recently, as oil price volatility has been compounded by an additional external financial shock represented by the adoption of international sanctions connected to the Ukrainian geopolitical crisis (Figure A1.2). Reflecting the presence of certain institutional weaknesses, the Russian equity market has also typically shown the lowest price-to-earnings ratio in comparison with peer emerging economies. Most of the largest companies in Russia seek to obtain equity financing abroad and as a consequence IPOs on international markets, particularly on the London Stock Exchange, have generally exceeded in number and size those on domestic markets.[46] Though market turnover has been generally rapid, it reached at times alarmingly high levels on the heels of sustained investor speculative activity (Troika Dialog, 2010). Domestic markets in Russia are indeed dominated by short-term investments by non-residents (or residents acting as foreign investors; see also below), which undertake most transactions in these markets to avoid long-term exposures (Mirkin *et al.*, 2013).

The debt securities market has remained very small, with outstanding stocks (of both domestically and internationally issued securities) at 20 per cent of GDP in 2014, but it has been relatively less volatile (Figure A1.3). At an early stage, the development of the corporate bond market was inhibited domestically by the dominance of government securities, which attracted most of domestic saving, and internationally

[44] Only a small fraction of households (less than one million out of more than 50 million Russian households) own equity (Sutela, 2009).

[45] The first stock market, RTS, was launched in 1995, while MICEX, originally conceived as a platform for currency exchange transactions, was only transformed into a stock exchange in 1997. The RTS and the MICEX merged into the Moscow Stock Exchange in 2011.

[46] For instance, in 2007 the IPOs of Sberbank and Vneshtorgbank (VTB) minority stakes (amounting in total to around USD 20 billion, half of total Russian IPOs) were among the largest in the world. According to PwC (2014), more than half of major Russian IPOs were done on the LSE in the period 2005-2013.

by the high perceived level of risk attributed to Russian entities. In the early 2000s, public bonds dramatically shrunk, as the large windfall of oil-related revenues was used to drastically reduce government debt. At the same time, stability-oriented domestic macroeconomic policies and structural reform programmes provided Russian corporates with a reduced spread for borrowing and easier access to both domestic and international markets. Private bonds therefore gradually started to emerge. In 2014 they amounted to more than two-thirds (70 per cent) of total outstanding debt securities, from less than half in 2005. It should be noted, however, that even though public debt issuance has shrunk dramatically, the state continues to play a dominant role on the debt security market indirectly, through its ownership or other means of influence on the largest corporate issuers.[47] The growth of the domestic bond market has been constantly hindered by weaknesses in the institutional and market environment, which has made investment in corporate securities rather risky. Large companies have indeed mainly resorted to international capital markets for long-term debt financing and this contributes to explaining why more than half of the total private debt outstanding (almost 60 per cent) is placed in foreign markets.

More in general, the accumulation of gross external debt (i.e., the debt component of FDI, portfolio debt securities and bank loans) in the banking and non-financial corporate sector was rather intense between 2000 and 2007, when demand for financial services increased with the surge in economic growth and private borrowers exploited the greater room created by the Russian authorities' decision to repay almost all external public debt. Financing by foreign creditors was facilitated by the fact that they assumed the existence of a de facto public guarantee covering borrowers, given the vast influence of the State in the Russian economy.[48]

Indeed, although since the early 2000s Russian overall gross external debt (both sovereign and private) has not fallen significantly as a share of GDP, going from 44 per cent in 2002 to 40 per cent in September 2015 (Figure A1.4), its composition has radically changed. Government debt has shrunk from almost 70 per cent of total external debt in 2002 to just 2 per cent of GDP. On the contrary, the private component (both banks and corporations) has surged from 14 per cent of GDP in 2002 to about 37 in September 2015 (in absolute terms, to 140 USD billion for banks and 350 for corporates).[49] However, a large part of external corporate debt is represented by liabilities to direct investors, as intercompany loans account for almost 37 per cent of the total. Moreover, most of what appears as foreign investment in fact reflects the repatriation of domestic capital that had previously left the country (Kudrin and Gurvich, 2015). A significant portion of private national saving is effectively reinvested in the domestic economy via foreign financial vehicles and intermediaries. A distinctive feature of Russian FDI is the high correlation between inward and outward investment flows, from and to major offshore financial centres.[50] Hence, a large share of investment flows into Russia should not be truly classified as foreign investment but rather as asset round-tripping by

[47] For example, in the equity market the three largest companies Gazprom JSC, NC Rosneft JSC and Sberbank Rossii JSC, which make up more than 30 per cent of the total capitalization, are state-owned enterprises operating in the oil and gas and in the financial sector.

[48] As a matter of fact, a guarantee was provided de facto by the authorities during the 2008 crisis and again more recently, after the Ukrainian geopolitical crisis. In both instances, large scale anti-crisis measures effectively substituted for foreign financing, thus avoiding a collapse of the economic system.

[49] It should be noted that during the first nine months of 2015 the increase in the ratio of total external debt to GDP (by almost 9 percentage point) was due to the significant fall in the domestic product. Indeed the numerator decreased by about 50 USD billion over the same period as a consequence of impaired access to foreign markets.

[50] According to CDIS data, in 2013 the top-twenty foreign investor countries in the Russian economy included seven offshore financial centres (Cyprus, the Bahamas, Bermuda, the British Virgin Islands, Luxembourg, Switzerland and Jersey). Their combined share of all inward direct investment to Russia was about 60 per cent. These countries were recipients of about 64 per cent of outward foreign investment from Russia in the same year.

domestic investors spurred by the quest for fiscal incentives and secrecy advantages.[51] The high share of intercompany loans in total external corporate debt and the large amount of round-trip financing in Russia, which have proved to be more stable, or even countercyclical, in periods of financial turbulence, therefore suggest that vulnerability to foreign financing might be overstated when looking only at the overall debt position.

2. The banking system

2.1. Main structural features

The size of the Russian domestic banking sector, as measured by its consolidated overall assets, has more than doubled, from barely 37 per cent of GDP in 2001 to 105 per cent in 2014. Total claims (loans and securities) are at about 68 per cent of GDP, their composition being marked by significant change over time. With the sharp contraction of claims on the central government, claims on the private sector have come to account for almost their totality, at more than 90 per cent of total claims in 2014, up from 75 per cent in 2001.

Bank loans remain mostly directed to corporates. Loans to firms, which accounted for 73 per cent of total lending to the private sector in 2014, have historically been the key business of the banking sector (Figure A1.5), with the large majority of banks typically earning more than half of their income from this activity (Anzoátegui *et al.*, 2010). However, the banking sector still plays a limited role in directing resources towards fixed capital investments, as confirmed by the fact that slightly below 10 per cent of it is funded through bank credit.

Spurred by the growth of disposable income and by a very low initial level of personal indebtedness, credit to households has surged practically from nil to around 30 per cent of total lending to the private sector in 2014, growing at an average annual rate of around 50 per cent in nominal terms between 2000 and 2014. Uncollateralized loans accounted for the bulk of lending to households, as the mortgage market remains rather underdeveloped.[52]

The Russian banking sector is dualistic in nature. On the one hand, it is very fragmented. This feature is a legacy of the privatization process which took place after the end of the Soviet era. As a consequence of the break-up of the two-tier system consisting of the Central bank and the five specialized banks that had existed since 1987, the local branches of three of the five specialized banks were privatized. A large number

[51] According to Ledyaeva *et al.* (2013), the distinctive regulatory, fiscal and secrecy environment of offshore centres provide strong incentives for transferring capitals to them. The drivers for such behaviour include purely financial motive, such as tax avoidance and evasion and the possibility of gaining access to financial incentives allotted to foreign investors when reinvesting the capital back home. The other well-known reason for round-tripping investment is the laundering of the proceeds of corruption. As for inward reinvestment into Russia, this puts the firm reinvesting into a superior competitive position vis-à-vis both resident firms established in Russia by genuine foreign investors (owing to lower transaction costs and knowledge of the market and networks) and incumbent Russian firms that operate on a purely domestic basis (owing to superior financial infrastructures and the low taxes afforded by offshore centres).

[52] The development of the mortgage market has been held back by multiple factors: first, real estate in Russia is very expensive; second, a high share of households (around 80 per cent) already own their home; third, poor labour market protection tends to discourage households from taking on long-term debt.

of new banking licenses were also issued.[53] The number of credit institutions reached its maximum in 1994, with almost 2,500 banks, and then began to decline (Figure A1.6). The pace of consolidation in the sector was more intense around the time of the 1998 financial crisis, but then proceeded more slowly during the following decade. Since 2013, the Bank of Russia has tightened supervisory activities and withdrawn the licenses of many banks, especially small and medium-sized ones, which were found to adhere to extremely risky business models or to engage in fraudulent practices (Barisitz, 2015). In combination with the effects of the 2014 crisis, which raised issues of capital deficiencies and insolvency, the number of credit institutions decreased by more than 200 over the last two years and stood at 676 in early 2016.[54]

On the other hand, the banking sector is increasingly concentrated: in 2014, the share of the five largest banks in terms of total assets was close to 54 per cent, that of the top 200 credit institutions was 97 per cent (the same indicators were equal to about 43 per cent and 88 per cent, respectively, in 2003; Figure A1.7).[55]

The state has a predominant role in the governance of the Russian banking sector. In 2014, 26 state-owned banks accounted for the bulk of banking assets, around 58 per cent (Figure A1.8). Notwithstanding recurrent plans for a gradual retrenchment,[56] state-owned banks' share of total domestic assets has actually increased in recent years. This has partly been the side effect of the rescue measures adopted by the Russian authorities in the aftermath of the two financial crises of 2008 and 2014. Indeed, during those crises, the state-owned banks had privileged access to liquidity support and recapitalization measures and were directly involved in the takeover of bankrupt small private banks, which suffered the most from the sudden stop of foreign inflows given their limited deposit base.[57]

Unlike in European emerging market economies (EMEs), the penetration of foreign banks in Russia is rather limited. In 2014, the 113 established foreign subsidiaries controlled only 14 per cent of total assets.[58] The three main Western banks operating in Russia are Unicredit Bank (Italy), Société Générale (France) and Raiffeisenbank (Austria), each controlling a market share of between 1 and 2 per cent of total assets in 2014 (Raiffeisen, 2015). Entry restrictions are an important factor in explaining the small number of foreign banks in Russia. During the 1990s, the CBR restricted the activity of foreign banks by establishing an upper limit for foreign capital participation equal to 12 per cent of the total aggregate capital of Russian commercial banks. During the negotiations for WTO accession, it was finally agreed to raise this limit to 50 per cent, with no cap on foreign equity held in individual credit institutions. However, any acquisition of shares by non-residents had to be approved by CBR. Moreover, the central bank traditionally had a

[53] Only Sberbank, the state-owned savings bank, and VTB, the foreign trade bank, survived the transition and are currently the two dominant state-owned banks.

[54] In many cases, the decrease is also the result of a merge between banks as in the case of the recent acquisition of Bank Petrocommerce, the primary settlement bank of the Lukoil Group, by Otkritie Bank.

[55] Anzoátegui *et al.* (2010) find that the concentration level of the banking system in Russia, although apparently high, is not unusual when looking at other large emerging economies, being for example broadly in line with that recorded in Brazil and lower than that in China.

[56] In 2010, the Russian Government approved a programme to sell the shares it held in large companies, including credit institutions, over the following five years. Although there has been a retrenchment through several public offerings, the state still maintains controlling voting shares in major banks.

[57] In 2008, for example, the three largest state-owned banks, Sberbank, VTB and Rosselkhozbank, received about 80 per cent of all public funds devoted to recapitalization needs (725 billion rubles; Vernikov, 2014). Following a change in refinancing practices, the CBR provided large amounts of liquidity mainly to state-owned and systemically important banks. Owing to their liquidity hoarding, many small and medium-sized banks were not able to overcome funding shortages in the interbank market.

[58] Considering ultimate ownership, the share of foreign banks decreases to about 10 per cent of total banking assets.

negative stance toward the creation of foreign branch offices (de facto it was prohibited; Gorshkov, 2011). Foreign entities were required to enter through subsidiaries in order to remain within Russian jurisdiction and therefore under the supervision of the CBR. A law approved by the Russian Parliament in 2013 has explicitly banned foreign banks from opening branches in Russia, further dampening foreign investment in the sector. Even not considering these explicit limits, foreign companies find it hard to penetrate the Russian market as it is difficult to deal with its business environment (Sutela, 2013).

With the predominance of large and state-owned credit institutions and a modest presence of foreign banks, several studies have investigated whether the particular ownership structure of the Russian banking system had a role in affecting its efficiency. According to Karas *et al.* (2010), foreign banks operating in the Russian market were more efficient than domestic private banks, a conclusion in line with the results for other emerging economies.[59] According to Fungáčová *et al.* (2010), the competitive pressures exerted by foreign-owned credit institutions when they started entering the banking market may have contributed to the reduction in the market power of domestic banks, thus fostering competition. Therefore, the still restricted foreign entry in the Russian banking system could have contributed to hampering its overall efficiency.[60]

However, in contrast to what emerges in other emerging economies, Russian state-owned banks seem to be as efficient as private banks.[61] In the early 2000s, the explicit government guarantee gave state-owned credit institutions access to a large depositor base at a lower cost, conferring them an advantage over private banks in granting loans. The introduction of the universal deposit insurance in 2004 did not succeed in levelling the playing field (Karas *et al.*, 2013). Indeed, it drove private banks to take on more risk, as creditors did not really exert market discipline and there was a lack of public supervision.[62] Berkowitz *et al.* (2014) analyse the privatization of Russian specialized banks in the early 1990s, finding that turning state-owned banks into private banks was not a sufficient condition to increase efficiency. They also suggest that a broader strategy of breaking-up political connections and improving property rights protection would have been critical for bank privatization to be successful in overcoming the legacy of non-market institutions.

In conclusion, the Russian banking system remains dual, with strong and dominant state-owned banks and many small domestic private banks which are dependent on the domestic interbank market for funding and make up for their higher operating costs by undertaking very risky lending operations. The limited penetration of foreign-controlled banks is unable to make a real difference in the competitive environment.

[59] Foreign parent banks may provide superior know-how in organization, best practices in risk analysis and enhanced corporate governance to their branches.

[60] This result is however not uncontroversial. For example, Mamonov and Vernikov (2015) recently found that foreign banks have a lower cost efficiency compared with domestic private and state-owned banks, which is potentially explained by their excessive capital adequacy ratio, a relatively small loan portfolio in the first stage of their penetration into the Russian market impeding the exploitation of economies of scale, and their being risk-adverse in a volatile Russian market with poor protection of property rights.

[61] State-owned banks are generally thought to undermine the efficiency of intermediation as they can exploit a dominant position and pursue strategies that reflect the requirements imposed by the authorities rather than good commercial sense (WB, 2013).

[62] Chernykh and Cole (2011) find strong evidence that the implementation of deposit insurance increased moral hazard in the form of increased risk taking.

2.2. Bank funding

Given the low level of the deposit base in the economy and the limited development of the securities markets, the Russian banking system has been traditionally characterized by a structural domestic funding gap, especially large for long-term maturities, which tends to widen cyclically during phases of buoyant credit growth.

In the early 2000s the deposits-to-GDP ratio was well below 20 per cent. This was the result of the lack of trust in the financial system, which originated during the turbulent period that followed the end of the Soviet era, characterized by high macroeconomic instability and an inadequate institutional and market environment. During the 1990s the banking system underwent a number of crises and depositors suffered substantial losses. Therefore, households preferred to save money in cash ('mattress money', generally denominated in foreign currency) rather than depositing it in domestic banks.[63] The combination of rising disposable income and improvements in the institutional framework has contributed to a rapid growth of deposits since the beginning of the last decade. The introduction of deposit insurance in 2004 was particularly important, as it increased depositors' trust and attracted household savings to the Russian banking system. After 2009, the Russian authorities initiated an active programme of social spending that distributed part of the financial resources originated from oil revenues to the population; this also contributed to supporting a strong increase in retail deposits. In 2014, the ratio of total deposits to bank liabilities and that to GDP were both close to 50 per cent (Figure A1.9); these figures suggest there is still room for improvement as they compare with levels well above 50 per cent for most of the peer emerging economies. Moreover, the growth in deposits was not rapid enough to close the structural gap with loans, which remained rather wide throughout the period. The loan-to-deposit ratio was close to 120 per cent in 2000, rose to 150 per cent in 2008 and stabilized again at levels around 120 per cent in the most recent years (it only declined to 108 per cent in 2015, FigureA1.10).

The funding gap in the Russian banking system is larger for maturities above one year. This figure would be significantly higher if all retail time deposits were effectively considered as demand deposits. As a matter of fact, the Russian Civil Code still provides for them to be available on demand under certain conditions, even if they have been contracted for a specified term. The short-term maturity of the deposits has turned out to be a source of vulnerability in the recent events of heightened financial stress, such as the 2008 and 2014, which were generally associated with sudden withdrawals of deposits and an increase in the amount of cash in circulation. Even if the importance of this phenomenon has diminished over time, exposure to a sudden drying-up of deposits should still be considered a vulnerability of the banking system.[64]

Small and medium-sized private banks find it particularly difficult to retain an adequate and stable deposit base. In 2014, the share of total deposits in the 540 domestic small and medium-sized private banks was a mere 3 per cent of total domestic deposits, while that in the 26 state-owned banks was 61 per cent (FigureA1.11). This is a legacy of the past, as in the early 1990s households tended to deposit their savings in state-owned banks (particularly in Sberbank, the largest one), which benefited from an explicit

[63] There was widespread demonetization and large recourse to barter, accounting for close to 50 per cent of industrial sales in 1998 (Guriev and Ickes, 1999).

[64] The Russian authorities have gradually increased the maximum compensation for individual depositors envisaged in the deposit insurance framework. The maximum compensation was equal to 100,000 rubles in 2004 (when the deposit insurance was introduced); it was raised to 700,000 rubles in 2008 (during the global financial crisis) and to 1.4 million rubles in 2014 (as part of the Government's measures to stabilize the domestic financial system during the Ukrainian crisis).

government guarantee (Figure A1.12).[65] The introduction of the deposit insurance in 2004 and the complete removal of the explicit and full guarantee on deposits in state-owned banks in 2007 contributed to establishing fairer competition among banks by reducing the concentration of deposits in the state-owned banks. In spite of this, the recent crises have once again induced depositors to transfer their savings from private banks to state-owned entities, which are still perceived as more stable and sheltered by state support (in 2014 the share in state-owned banks increased by 3 percentage points).

Given the limited development of the domestic securities market, during the period of buoyant lending growth between 2000 and 2008 the Russian banking system mainly resorted to international financial markets to cover its widening domestic funding gap. Its net foreign asset position gradually deteriorated, reaching a bottom in December 2007 at about 10 per cent of total liabilities (Figure A1.13). This was the highest share for the banking systems of the main emerging economies in the same period.[66] The exposure of individual Russian banks to foreign financing was also rather varied, reflecting their different size and ownership structure (Egorov and Kovalenko, 2013). State-owned banks were quite reluctant to borrow short-term funds from foreign lenders (in short-term operations, they typically maintained a net creditor position vis-à-vis foreign banks). By contrast, Russian private and foreign-owned credit institutions followed riskier strategies, becoming net borrowers in both short- and long-term operations. The situation became difficult in mid-2008, as foreign investors became increasingly reluctant to lend to Russian banks.

The 2008 crisis forced a sharp correction in the external funding exposure of the Russian banking system; following that event, the composition of bank funding was significantly modified. Since 2009, the net foreign asset position of the banking system has remained positive, and indeed the banking system as a whole now appears less vulnerable to the evolution of the international debt market. There remain, however, significant differences across individual credit institutions in terms of reliance on external liabilities: while at the end of 2014 the overall amount of debt to non-residents stood at 10.6 per cent of total liabilities for the banking sector as a whole, some 136 credit institutions (52 of which were foreign-controlled banks) displayed higher values (CBR, 2015; Figure A1.14).

Since 2009, the structural funding gap of the Russian banking system has been increasingly covered through loans by the CBR to commercial banks.[67] The refinancing operations have been carried out at medium- and long-term maturities, and a larger set of banks are now eligible to borrow against non-marketable assets and guarantees in order to overcome the scarcity of securities eligible as collateral.[68] Following the recent imposition of international economic sanctions linked to the Ukrainian crisis, which has virtually shut down access to international markets for major Russian banks, the funds provided by the central bank have effectively replaced foreign liabilities in banks' balance sheets. Funding by the CBR as a share of total bank liabilities reached its maximum in 2014 at about 12 per cent of total liabilities and then decreased to 7 per

[65] All retail deposits in banks with state participation above 50 per cent used to be fully insured (with no coverage limit). Among state-owned banks, Sberbank managed to attract the highest share of deposits, due to a broad network of branches located all over the country. In 2000 Sberbank's retail deposits accounted for over 75 per cent of the total.

[66] Brazil, Poland, Indonesia and Turkey also recorded a negative net position in the same period, but just barely, between 1 and 2.5 per cent of total liabilities.

[67] The Ministry of Finance also provides regular liquidity to the banking system, by auctioning excess cash in its Treasury account.

[68] The limited availability of collateral reflects the fact that the amount of outstanding government bonds has significantly diminished in the past years, as Russian sovereign debt declined to almost zero. Moreover, securities suitable as collateral tend to be mostly held by large state-owned banks, as their low return makes them relatively unattractive for private banks (Orlova, 2012).

cent in 2015, a value which is still high in historical perspective. By contrast, the share of foreign liabilities, which was close to 22 per cent in 2007, decreased to about 12 per cent.

In Russia, the domestic interbank market plays a crucial role in redistributing liquidity across banks and contributes to overcoming the dualism between the large and state-owned credit institutions and the rest of the system. As most small and medium-sized credit institutions are not eligible to obtain refinancing from the central bank, they depend in practice on the domestic interbank market for their funding needs. However, during periods of financial tensions, large private banks and state-owned banks may be tempted to hoard the liquidity received from the authorities and from the international markets, exacerbating the segmentation of the domestic market and contributing to the amplification of shocks. At the peak of the 2008 crisis, the Russian interbank rate spiked and the market virtually collapsed. Only direct intervention by the Russian government and the CBR to support the small and medium-sized banks was able to contain the damage (Fidrmuc and Süss, 2009).[69]

2.3. Quality of lending

In the run-up to the 2008 global financial crisis, buoyant credit growth was in part associated with more relaxed credit assessment criteria, resulting in greater risk-taking on the part of the banking system. When the subsequent economic recession of 2009 dramatically hit Russian corporates, banks were exposed to high loan losses, although the increase in non-performing loans, albeit sharp, did not apparently match the large deterioration that occurred in other countries (Figure A1.15).[70]

The quality of the loan portfolios of Russian banks may, however, be overstated, as the classification of NPLs is not fully in line with international standards. Owing to the exclusion of 'doubtful loans',[71] the figure based on Russian accounting standards is lower than the one that would result from a stricter application of the IFRS, which would have shown the volume of NPLs to be twice as large (Barisitz and Lahnsteiner, 2010). NPLs could potentially be underreported also due to the doubtful quality of restructured loans, the practice of 'evergreening' (i.e. repeatedly restructuring or rolling-over troubled loans) and that of passing over distressed assets to off-balance sheet entities that are not subjected to consolidated supervision (IMF, 2011).

The 2009 spike in the observed NPL ratio was partially reabsorbed between 2010 and 2013, owing to the rapid credit growth associated with the swift recovery of the Russian economy, rather than to the reduction in the amount of overdue loans. After the sharp depreciation of the ruble and the contraction in domestic demand, the quality of loans further deteriorated and the NPL ratio reached 8.2 per cent in 2015. The increase was somewhat limited by temporary regulatory forbearance on loan classification, provisioning, and valuation accounting; such measures were introduced by the CBR in December 2014 and lasted until

[69] Small and medium-sized banks with low or no credit ratings are particularly challenged by the surge in interest rates and in counterparty risk during periods of financial tensions.

[70] After the 2008 global financial crisis, NPLs in some countries of Central and Eastern Europe swiftly ramped up to double-digit levels, including Hungary (10 per cent in 2010) and Romania (12 per cent in 2011).

[71] According to the CBR (regulation No. 254/2004) 'doubtful loans' bear considerable credit risk, as the probability of financial losses due to non-performance or improper performance of obligations by the borrower dictates their depreciation by 21 to 50 per cent.

January 2016, when they were terminated after several extensions.[72] This package of measures was one of the initiatives that authorities adopted in order to stabilize the financial system amidst significant market stress.

Concerns on loan quality are related to some relatively new features of banks' lending activity. In particular, although the share of retail credit is still modest, the great majority of consumer lending (around 60 per cent) is unsecured, and mostly short-term.[73] While households' overall liabilities are rather small (less than 20 per cent of GDP), they spend on average over one-fifth of their income on servicing debt, a relatively high share, explained by the high interest rates being charged (Barisitz, 2013).

Moreover, bank lending to connected parties (known as 'connected lending') remains widespread in the Russian banking system. This feature became common during the 1990s when, in a context of nascent regulatory and supervisory frameworks, low confidence in the rule of law and limited protection of property rights, loans were mainly funnelled to connected parties and used to finance unproductive activities.[74] At present many banks are still closely affiliated with large industrial groups. According to Orlova (2012), the share of connected lending – often masked through specific schemes – was hovering on average around 10 per cent in 2012. For some banks, it reached up to 25-30 per cent of the total loan portfolio.

A partly related feature is the high level of concentration in lending stemming from large loans made to a single borrower. This 'single-party lending' stands at around 25 per cent of total banking assets, down from over 30 per cent ten years earlier. Such a high degree of concentration partly reflects the structure of the Russian economy, which is dominated by a few large companies (Barisitz, 2013). However, it is questionable whether the full extent of such concentration is accurately measured (OECD, 2009). In addition, when loans are extended to connected parties, a more lenient application of credit assessment criteria may be likely, including for collateral quality, implying a higher risk that they may turn into problem loans. The above-mentioned practices are also followed in state-owned banks. The latter often supply funds to systemically important firms on the basis of broader policy considerations, at subsidized interest rates or under targeted government programmes (Vernikov, 2014).

2.4. Dollarization and currency mismatches in the banking sector

At the end of the nineties, the Russian economy was characterized by a high degree of dollarization, a feature common to other emerging economies coming from a long period of high macroeconomic instability. Against the backdrop of sharp devaluations and high inflation rates, the role of foreign currency had grown considerably as firms and households tried to protect their purchasing power. As mentioned above, this was combined with a lack of trust in the political and financial system, so that a large part of foreign currency was effectively held in cash. Since the early 2000s a process of de-dollarization of the

[72] For example, in order to reduce the influence of ruble exchange rate volatility, the CBR granted credit institutions a temporary right to use the exchange rate as at October 2014 when calculating exposures in foreign currencies for prudential purposes.

[73] In 2013, the most popular type of loans was point-of-sale (POS) loans. A POS loan occurs when a bank sets up a stand in a shop and sells loans to customers eyeing, for example, a new washing machine in the display window of the store.

[74] Most private banks were functioning as treasuries for non-financial enterprises or groups. Indeed, the so-called 'pocket banks' were generally owned by corporate groups and oriented to serving the needs of group members rather than independent, profitable businesses.

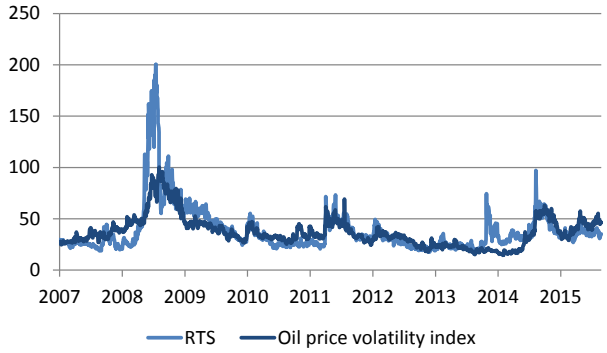
Russian economy has gradually taken place (Figure A1.16), in association with macroeconomic stabilization and the steady appreciation of the ruble (Ponomarenko *et al.*, 2012). However, in periods of tension, such as the 2008 financial crisis and, more recently, the Ukrainian crisis, dollarization resurfaces. For example, at the end of 2014, households reduced both ruble and foreign currency deposits, preferring to hold foreign currency in cash (CBR, 2015).[75] This is an indication that distrust in Russia's overall macro-financial and political stability is still present, and recurrent dollarization remains a vulnerability affecting the financial system. However, bank lending in foreign currency to unhedged borrowers is not a pervasive phenomenon and is not a key issue for the systemic stability of the Russian financial system. Indeed, foreign currency lending is mostly directed to the corporate sector, which is naturally hedged through export revenues. In the second half of 2014 the decision to allow the ruble to devalue freely also reflected an assessment of the low overall exposure of the Russian economy to foreign currency risk.

[75] In this regard, the increase in the share of deposits denominated in foreign currency (in total domestic deposits) that occurred in this period can be fully explained by the sharp depreciation of the ruble vis-à-vis the dollar.

Figure A1.1 Main components of the financial system in Russia as % of GDP

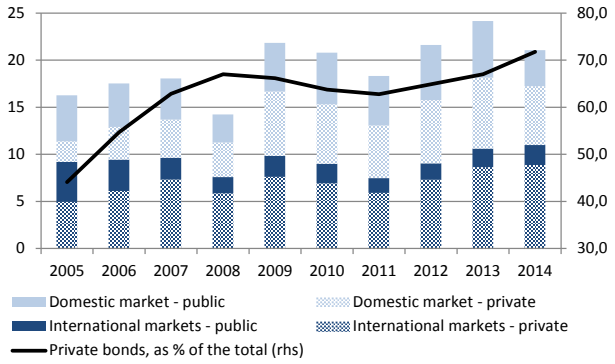
Source: BIS, IMF *International Financial Statistics* and World Federation of Exchanges.

Figure A1.2 Russian equity market (Russian Trading System index) and oil price volatility, in percentage points



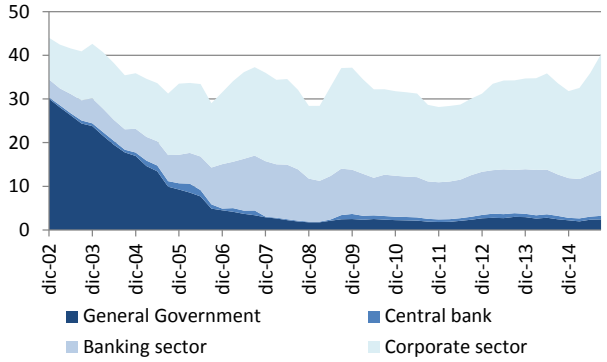
Source: Thomson Reuters *Datastream*.

Figure A1.3 Total debt securities, as % of GDP, and private debt securities, as % of total debt securities, in Russia



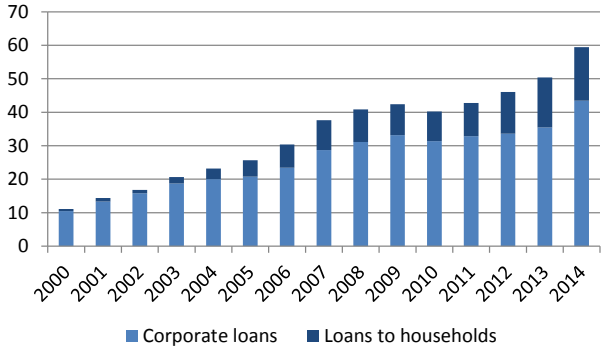
Source: BIS.

Figure A1.4 Russia's gross external debt as % of GDP



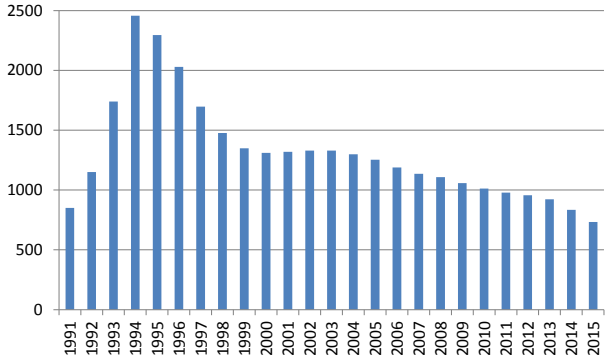
Source: CBR and IMF *International Financial Statistics*.

Figure A1.5 Stock of credit to the private sector in Russia as % of GDP



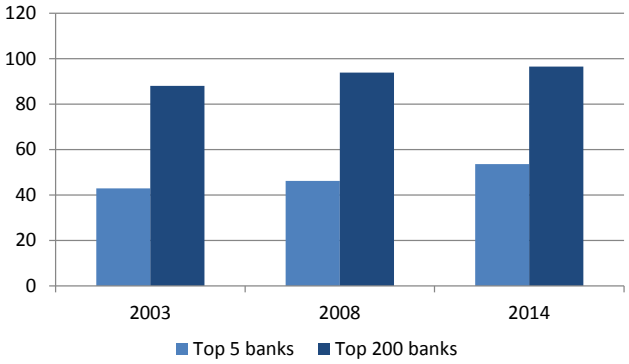
Source: CBR and IMF *International Financial Statistics*.

Figure A1.6 Number of Russian banks, units



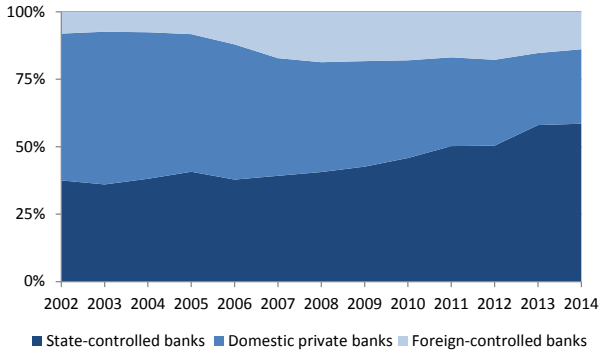
Source: CBR.

Figure A1.7 Concentration in the Russian banking system, percentage share of total assets



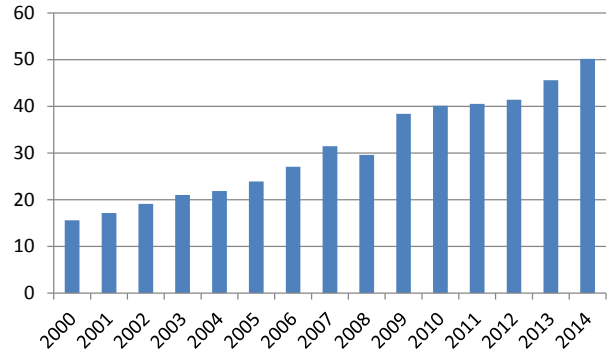
Source: CBR.

Figure A1.8 Market shares of Russian banks by ownership structure as % of total assets



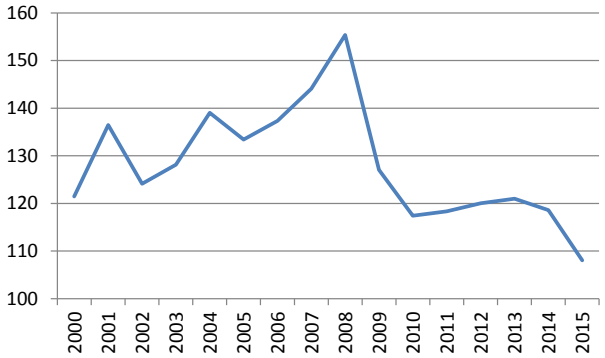
Source: CBR.
Note: The share of foreign banks refers to credit institutions with more than 50% of foreign stakes in authorised capital, according to immediate ownership. Discrepancies with CBR statistics based on ultimate ownership have been attributed to domestic private banks.

Figure A1.9 Bank deposits in Russia as % of GDP



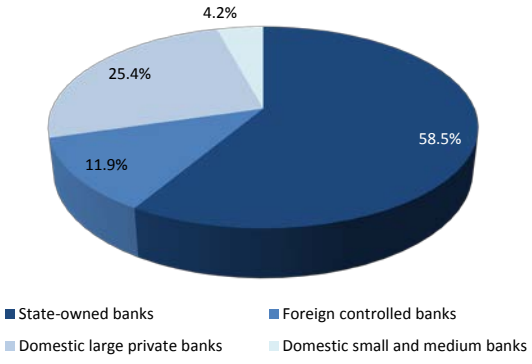
Source: CBR and IMF *International Financial Statistics*.

Figure A1.10 Loan-to-deposit ratio in Russia, %



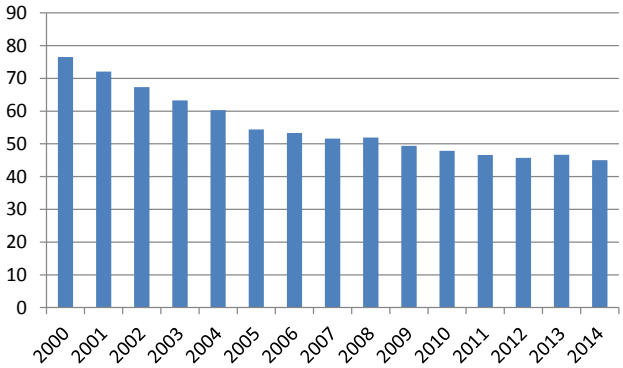
Source: CBR.

Figure A1.11 Share of deposits in the Russian banking sector by type of ownership, percentage shares in 2014



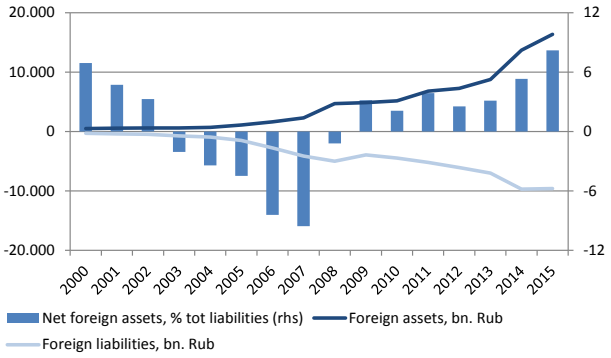
Source: CBR.

Figure A1.12 Sberbank's percentage share in Russian household deposits



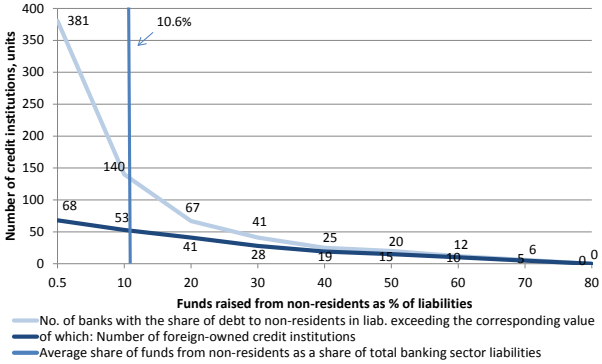
Source: CBR.

Figure A1.13 Foreign assets (+) and liabilities (-) and net foreign assets position of the banking sector in Russia



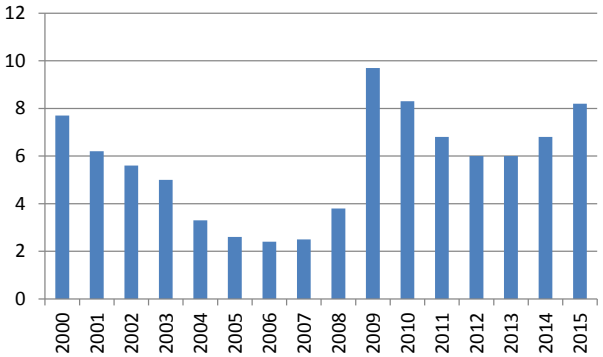
Source: Based on CBR data.

Figure A1.14 Russian banking sector debt to non-residents, 2014



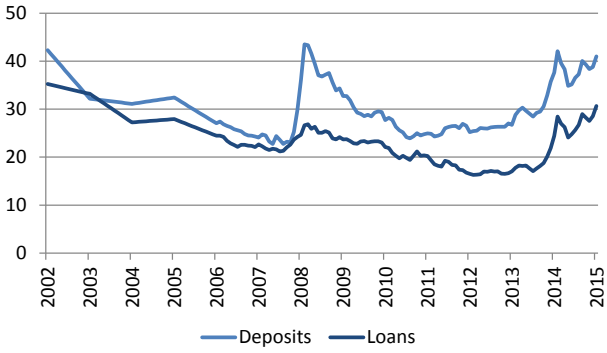
Source: CBR.

Figure A1.15 Non-performing loans in the Russian banking system as % of total loans



Source: CBR.

Figure A1.16 Deposits and loans denominated in foreign currency in Russia as % of total domestic deposits and loans



Source: CBR.

Appendix 2. The financial system in Turkey

1. An overview of the Turkish financial system and its main segments

After the serious downfall that followed the severe twin crises of 2000-01, the Turkish financial system has gradually recovered, following a trend only temporarily interrupted by the 2008 global financial crisis. Yet, compared to 2001, the total market size of banks, bonds and equities has not grown significantly larger (Figure A2.1), and remains small in international comparative terms. The slow progress in the deepening of the financial system mainly reflected the modest development of equity and bond markets. Indeed, the equity market capitalization, after a period of fluctuation, was back at its initial level of 2001, while the bond market was significantly smaller. The development of the market is hindered by the low saving rate, the pervasive role of the informal economy[76] and the narrow investor base. Institutional investors account for a small share of the Turkish financial system, with the assets of mutual funds, pension funds and insurance companies amounting to only about 5.5 per cent of GDP in 2013.

Equity market capitalization was extremely volatile between 2001 and 2014, ranging between 16 and 42 per cent of GDP. Being dominated by foreign investors, the equity market is strongly affected by the evolution of the international capital flow cycle.[77] The contraction was strong after the 2000-01 crisis, the 2008 global financial crisis and the 2013 'taper tantrum' episode. In 2014, equity market capitalization was close to 27 per cent of GDP, a figure in line with that of 2001. Turkish companies still tend to source only a limited amount of funds from equity issuance. This is partly due to the corporate ownership structure, which in Turkey is highly concentrated, with a few families controlling most large companies, with the result that these generally turn to bank credit for financing or prefer to make use of internal funds (WB, 2011). Moreover, small and medium-sized enterprises (SME) operating in the informal economic sector are cut off from most sources of external funding, not least equity financing. Indeed, overcoming information asymmetries in the case of SMEs may be daunting as this would require the disclosure of credible information in formal documentation, and this is almost impossible in sectors where unrecorded transactions are widespread. Therefore, informal activity has a negative impact on the development of capital markets and on financial deepening.[78]

The debt security market contracted sharply in the early 2000s (the combined outstanding stock of domestic and internationally issued securities decreased to 37 per cent of GDP in 2014, from 54 per cent in 2001). The contraction was almost entirely due to the smaller size of government debt following the fiscal consolidation implemented since 2002. However, public-sector securities still account for about 80 per cent of total issuance and are mostly issued on the domestic market. Indeed, the corporate bond market remains largely underdeveloped, at about 7 per cent of GDP in 2014 (including international issuance). Its slow development until the early-2000s was due in large part to high macroeconomic volatility and the crowding out by government issuance to finance large deficits; in more recent years, however, there has

[76] Informal economy, estimated to account for about 30 per cent of GDP. Many small and medium sized enterprises in the informal sectors generally operate well below their optimal size, reflecting lower productivity and profit margins. According to WB (2010) estimates, the productivity gap in the manufacturing sector between informal and formal firms is at about 19 per cent (up to 62 per cent in the service sector).

[77] The share of equities owned by foreign customers to total equities in custody was around 55 per cent over the last decade; in 2013, this figure had risen to about 62 per cent (CMB, 2015).

[78] Gobbi and Zizza (2007) provide empirical evidence that the underground economy has held back financial deepening in Italy.

been a steady improvement in the corporate bond market (Figure A2.2). In 2010 a regulatory decision by the BRSA to permit banks to also issue debt instruments in the domestic financial market provided a significant boost to corporate bond issuance (WB, 2012).[79] The private sector has also been increasingly turning to international financial markets to cover its financing needs: private bonds issued on international markets increased, and in 2014 accounted for almost 60 per cent of Turkey's total international issuance.

More in general, large non-financial corporations and banks have increasingly resorted to borrowing abroad to overcome low domestic savings. Turkey's gross external debt, after declining sharply in the aftermath of the 2000-01 crisis, climbed to over 55 per cent of GDP after the global financial crisis (Figure A2.3), driven by the corporate and financial sectors, which account for almost 80 per cent of total debt. Half of the external debt is accounted for in particular by financial institutions, whose foreign liabilities jumped from 11 per cent of GDP in 2007 to 27 per cent in 2015. Short-term borrowing[80] by financial institutions represents about 70 per cent of the total short-term external debt,[81] which has almost doubled after the crisis, reaching 17 per cent of GDP in 2015.[82]

2. The banking system

2.1. Main structural features

Unlike other segments of the financial system, the banking sector has grown gradually since 2005, overcoming the marked retrenchment caused by the 2000-01 crisis, and by 2014 bank assets accounted for about 110 per cent of GDP (against 70 per cent in 2001). Total claims (loans and securities) on non-banking sectors were about 85 per cent of GDP, up from 40 per cent in 2001; their composition changed markedly between 2001 and 2014. Claims on the central government, in particular securities, contracted sharply, almost halving to 15 per cent of GDP in 2014. The gradual return of the banking system to core intermediation functions led to a nearly three-fold increase in claims on the private sector, whose share rose to almost 70 per cent of the total in 2014.

The banking sector has undergone a significant process of consolidation and concentration since the turn of the century. The pace of consolidation was intense immediately after the crisis and then petered out. The number of credit institutions diminished from 79 in 2000 to 50 in 2015.[83] Since 2002 the number of state-owned banks has declined by one unit (from 9 to 8), and that of domestic private credit institutions by 13 units (from 27 to 14), while the number of foreign banks has increased from 18 to 28 (Figure A2.4). Concentration in the banking sector increased significantly between 2001 and 2005 but has slightly

[79] This notwithstanding, in 2014 bank bonds still only account for 2.5 per cent of total bank liabilities excluding capital.
[80] Debt with (original) maturity of one year.
[81] The increase in banks' short-term external liabilities in recent years also reflects the introduction in 2011 of the Reserve Option Mechanism (ROM) in the monetary policy toolbox. The ROM allowed banks to keep part of their required reserves in foreign currency, thus encouraging them to borrow from abroad and use this facility when Lira liquidity was tightened. More recently, external funding has switched to longer-term sources reflecting measures enacted by the CBRT to extend the maturities of non-core liabilities.
[82] On a remaining maturity basis, about two-fifths of external debt are short-term.
[83] The Turkish banking sector includes three different types of institutions: deposit banks, which are commercial banks that raise deposits and extend loans; investment and development banks, which do not collect deposits and have specific goals; participation banks, which are Islamic banks. Deposit banks make up the lion's share of total banking assets (more than 90 per cent of the total).

diminished thereafter. The share of the five largest banks in terms of total assets was about 58 per cent in 2014, and that of the top 10 around 86 per cent (Figure A2.5).[84]

In terms of market share, state-owned banks continue to make up a large segment of the banking sector: in 2015, their overall share in total assets was just above 30 per cent, down from about 40 per cent in 2002 (Figure A2.6). State-owned banks were one of the main culprits of the 2000-01 crisis (BRSA, 2009) and plans for privatization were enshrined in the Banking Sector Restructuring Programme, along with an in-depth process of restructuring and recapitalization. However, the reform momentum has lost steam in recent years (Tükel *et al.*, 2006). The key role still played by the state continues to affect the functioning of the banking sector in different ways: on the one hand, state-owned banks represent vehicles through which the government can finance priority activities (e.g., agriculture, SMEs) at subsidized interest rates and act in a countercyclical fashion, expanding lending during recessions (Yörükoğlu and Atasoy, 2010, FESSUD, 2013); these banks are also perceived as a 'safe haven' because of the implicit guarantee of the state, and have a widespread commercial network (Marois and Güngen, 2014). On the other hand, state-owned banks may negatively affect the competitive environment in the banking sector, as they are able to offer more favourable deposit interest rates, being less concerned with making profits and benefiting from the implicit state guarantee, thus distorting the allocation of deposits; they also hold a monopolistic position in relations with state enterprises and foundations, which are banned from opening accounts with private banks (Tükel *et al.* 2006).

Since the turn of the century, foreign banks have increased their market share, especially at the expense of domestic private banks: in 2015 foreign banks accounted for around 30 per cent of total assets. While this share may appear relatively low compared with those prevailing in other banking systems in European emerging countries, it must be kept in mind that the foreign presence would actually be higher if joint ventures with domestic investors were counted in. A combination of pull and push factors has contributed to the progressive entry in the Turkish market of foreign banks since 2005 (Aysan and Ceyhan, 2008).[85] Almost all foreign banks have preferred to expand their presence in Turkey through acquisitions rather than by establishing their own subsidiaries as a green-field investment, as there were some regulatory barriers to opening new banks and the BRSA appeared to be reluctant to issue new licenses (Akin *et al.*, 2009). Indeed, acquiring a domestic bank has represented an easier and faster route to penetrate the Turkish market and foreign banks have purchased domestic banks at a premium to be able to capture market shares quickly and easily.

2.2. Bank lending

Thanks to a freshly restructured banking sector, improved macroeconomic stabilization and buoyant economic performance, credit to the private sector expanded in nominal terms at an average annual rate of more than 30 per cent between 2001 and 2015. The credit dynamic was, however, marked by ups and downs: it rebounded from the trough of the 2001 financial crisis, starting from a very low credit-to-GDP ratio. After the last global financial crisis, credit expansion surged to new heights, spurred by abundant

[84] These data come from the Turkish Banking Association (TBA) and do not take into account participation banks.

[85] There were five major cases of foreign bank entry in 2005, starting with the acquisition of Türk Ekonomi Bankası by BNP Paribas, followed by seven more in 2006 and the acquisition of Oyak Bank by ING Bank in 2007. In 2005 UniCredit, in joint venture with Koç group, acquired Yapı ve Kredi Bankası A.Ş. The last significant operation was the acquisition of the control stake in Garanti Bankasi by BBV in 2015.

capital inflows and by the brisker prospects of the economy, only to decelerate again lately. The structure of bank loans to the private sector has been changing: though corporates have kept the lion's share of total credit to the private sector, loans to households have recorded a marked increase (Figure A2.7).

Corporate loans, which have historically represented the key business of the banking sector, accounted for slightly more than 60 per cent of total lending to the private sector in 2015. Corporate lending is a highly competitive market segment that has typically displayed low profit margins (Tükel *et al.*, 2006). As a consequence, banks have tried to expand their lending to other sectors, in particular households and SMEs, which are more profitable but also riskier. Lending to SMEs and consumers recorded unprecedented growth rates in the aftermath of the 2000-01 crisis, and this compelled the BRSA and the CBRT to adopt restrictive measures, particularly after the 2008-09 global financial crisis, to tame the expansion.[86]

SMEs remain underserved by the banking system in terms of lending. Given the relative volatility of the macro-economic environment, at the very first signs of liquidity tensions banks tend either to call SMEs loans back or to increase interest rates dramatically. The problem is the low level of trust between banks and SMEs: banks have significant difficulty in evaluating SMEs' creditworthiness and collateral, in part because of the widespread practice of using unrecorded transactions among SMEs; moreover, even in presence of collateral, the enforcement of legal claims is not very efficient (Tükel *et al.*, 2006).

Credit to households has grown steadily, going from less than 5 per cent of GDP in 2001 to more than 25 per cent in 2014, reflecting easier access to credit, lower borrowing costs and a low starting level of household indebtedness (which was still only around 25 per cent of GDP in 2014).[87] The expansion of lending to low-income consumers has been particularly strong, bringing about significant debt accumulation by poorer groups (OECD, 2014). Uncollateralized loans such as consumer and other loans have been growing over the years, accounting for the bulk of lending to households in 2014 (Figure A2.8). Housing loans have been creeping up slowly, driven by low interest rates, the rapid increase in house prices and some one-off effects due to anticipated regulatory changes in real estate taxation. However, house purchases tend to be financed with products having a relative short duration, less than 8 years on average (TBA, 2011), and the mortgage market remains underdeveloped in comparison with other banking markets in the region.[88] Hence, household loans remain skewed towards financing consumption when compared with other higher middle income economies (WB, 2014).

2.3. Bank funding

Domestic deposits have historically been the main funding source for the banking sector; however, their level is low by international standards and tends to be skewed towards short-term durations. Banking

[86] In particular the CBRT changed the remuneration of minimum reserves, intervened in the FX market, varied the monetary policy interest rate and adopted an unorthodox monetary policy framework aimed at introducing more uncertainty in the conduct of the monetary policy in order to discourage sustained capital inflows and credit growth. The BRSA introduced a loan-to-value ratio of 75 per cent for housing loans, increased risk weights on consumer loans and provisioning requirements in 2011. In 2013, it linked credit card limits to income, increased risk weights again and extended provisioning regulations to credit cards, overdrafts and vehicles loans.

[87] The prohibition for consumers to borrow at variable rates (only housing mortgages are allowed to be indexed to the CPI and the total amount of these loans is negligible), which protects the households from interest rate risks, has encouraged consumers to borrow even during the global financial crisis (IMF, 2012).

[88] In 2014 the outstanding mortgage volume accounted for 7 per cent of GDP in Turkey, while in Poland, the Czech Republic and Hungary the ratio stood at 21 per cent, 19 per cent and 11 per cent, respectively.

deposits held by the non-financial private sector plummeted to less than 30 per cent of GDP in the wake of the 2000-01 crisis, reflecting increased macroeconomic volatility and lack of trust in the banking system. The fall was in part contained by the presence of a blanket guarantee to all depositors, which was eventually removed and replaced by a limited guarantee scheme in 2004.[89] The subsequent recovery was supported by buoyant economic activity and improved consumer and business confidence, and non-financial private sector bank deposits quickly recovered in absolute terms and kept growing over the period 2004-14, reaching 50 per cent of GDP in 2015 (Figure A2.9). Their share in banks' total liabilities, roughly constant between 2002 and 2011, has started to decrease in recent years (below 43 per cent in 2015). When compared with the higher share in other emerging EU countries, the Turkish figures signal a significant hurdle to further deepening in the banking sector (Erdem, 2013).

A key structural feature of the deposit base in Turkey is its short-term maturity: at end-2014, 60 per cent of total deposits had a duration of less than three months, and 19 per cent were sight deposits. Over the years, as loan duration lengthened, deposit maturity did not follow suit, exacerbating banks' maturity mismatch. On top of that, the high concentration of deposits adds to refinancing risks: in fact, a mere 50,000 depositors hold over 90 per cent of total deposits in the banking system, leaving it exposed to the whims of a small fraction of the population (WB, 2014).

In recent years, against a backdrop of strong credit growth, deposits have not caught up, giving rise to a relatively new phenomenon for the Turkish banking system: the loan-to-deposit ratio, historically below 100 per cent, exceeded this threshold in 2012 and stood at around 120 per cent in 2015. Facing a rather underdeveloped domestic market for corporate securities, Turkish banks have covered the surfacing funding gap mainly with funding from abroad, in the form of short-term bonds and long-term syndicated or securitized loans. Foreign financing has contributed to a lengthening in the duration on the liability side of the banking system, exploiting the availability and convenience of foreign resources.

Before the global financial crisis, recourse to foreign financing in the Turkish banking system was lower than in other countries in the region (as of 2008, in Turkey the average share of external liabilities in total liabilities was around 15 per cent, against 25 in other emerging European countries). Moreover, the Turkish banking system relied more on syndicated or securitized loans - rather than intercompany lending - hedged through off-balance derivative operations (Saltoğlu, 2013). When the global financial crisis hit, external financing sources temporarily dried up and the composition of bank funding shifted, as banks (especially state-owned) resorted to central bank repo transactions; the same occurred in the aftermath of the euro area sovereign crisis (ECB, 2010 and 2012). Contrary to the rest of emerging Europe, however, since 2010 foreign resources have started to flow again into the Turkish banking system, spurred by the quest for yield in international financial markets. However, this capital inflow came at the cost of shorter funding duration, with a deterioration of the banks' financing structure (OECD, 2012). In 2015, gross foreign liabilities were about USD 170 billion (Figure A2.10), about 25 per cent of the banks' overall liabilities (excluding capital). In an effort to counter the shortening in the duration of FX funding, the CBRT has recently enacted a series of measures aimed at lengthening FX borrowing on the part of the banking system that contributed to a re-

[89] Deposit insurance was introduced in Turkey following a banking crisis in 1982, and the Savings Deposit Insurance Fund (SDIF) was charged with the management of the scheme. In 1994 the deposit insurance limit was repeatedly increased to stem market turbulence; the government then decided to lift any limit on deposit guarantees. This encouraged moral hazard on the part of depositors and intermediaries, allowing several insolvent banks to continue to take deposits. At the same time, it may have helped prevent wide-scale bank runs at the outbreak of the 2001 crisis. In order to contain moral hazard, the guarantee was capped again in 2004 and as of now, it stands at 100,000 Turkish Lira.

composition of foreign financing in favour of longer term maturities.[90] With external assets remaining broadly stable over the last five years, the net foreign asset position of the banking system worsened significantly and became markedly negative, at about 20 per cent of overall bank liabilities (excluding capital) in 2015.

Notwithstanding the strong increase in borrowing abroad, mostly in foreign currency, and the widespread use of deposits denominated in foreign currency among households and corporations, the Turkish banking sector is exposed to relatively limited direct FX risk, as the on-balance-sheet FX net open position is almost fully hedged through off-balance-sheet transactions of the opposite sign. Foreign currency assets accounted for about TL 700 billion (35 per cent of GDP), totalling around 40 per cent of on-balance-sheet assets, while banks' foreign currency liabilities are at around TL 840 billion (40 per cent of GDP and around 48 per cent of total liabilities). Thus, on the whole, assets and liabilities in foreign currency give rise to a short net open position of about 7 per cent of total liabilities. Taking into account hedging through off-balance-sheet operations, the residual unhedged position is small at about 0.7 per cent of total liabilities (Figure A2.11).[91].

2.4. Maturity mismatch

In emerging market economies loan maturities tend to be shorter than in developed countries, reflecting investors' perception of higher long-term risks. This held true for Turkey as well, especially in the early 2000s, when the share of loans with maturity shorter than a year was more than half of total credit. However, since then loan duration started increasing, driven by loans to households (which had an average maturity longer than 24 months; CBRT, 2008). At the same time, loans to corporates remained relatively short-term, with an average duration of around 1 year, longer than that of deposits (less than 3 months on average; see above). This gap between the duration of assets and liabilities has persisted over the years; if anything, the lengthening of the average maturity of Turkish Treasury bonds, as a reflection of a sounder fiscal position, contributed to a lengthening in the maturity on the banks' asset side.

The increased reliance of banks on the CBRT's short-term lending facilities as a means of fund raising, especially in times of turbulence, and the recent reduction in deposit maturity reflecting the jitters in the global financial market in late-2013 have fuelled maturity mismatches on the liability side as well. At the same time, the banking sector has started issuing longer term bonds as another way to contain the risk of a mismatch. At end-2014 the average maturity was 20 months for bank assets and less than 3 months for bank liabilities. On their part, both the CBRT and the BRSA have acted to contain such a risk, especially in periods of global financial turmoil. At the outbreak of the global financial crisis and over the course of 2014-15, the CBRT differentiated reserve-requirement ratios for different Turkish lira deposit maturities and between FX and TL deposits in order to encourage longer-term funding, raising reserve-requirement ratios especially for short-term liabilities, and widening the scope of reserve requirements. In early 2014, the BRSA also enacted some regulations aimed at limiting the maturities of consumer loans, with the exception of housing loans.

[90] In particular, the CBRT raised the FX reserve requirement ratios for non-core liabilities with maturities shorter than 3 years (CBRT, 2015).

[91] The residual short net open position is within the regulatory limit of 1.6 per cent of the regulatory capital (IMF, 2014b).

2.5. Quality of lending

From a peak of above 20 per cent, reached as a consequence of the fallout of the 2000-01 crisis, non-performing loans in the Turkish banking system swiftly decreased between 2002 and 2006 owing to a combination of several factors. These include strong GDP growth, the effects of fast credit growth and loan rescheduling under the 'Istanbul approach' to loan restructuring (IMF, 2007),[92] along with more effective measures to enhance risk management by banks (Figure A2.12). Additionally, stricter banking regulations, enacted following the 2000-01 crisis, revised lending limits, aligning them to EU regulations. Moreover, tighter regulation of connected lending, complemented with limitations on partnerships in non-financial subsidiaries, triggered a reduction of the previously widespread phenomenon of connected lending.

The outbreak of the 2008 global financial crisis led to a new increase in NPLs, which was more contained than in previous episodes, but also differentiated across types of banks. The increase was most significant among foreign banks, while it was much less marked among state-owned banks, whose borrowers are generally public servants, state-owned enterprises and sectors benefiting from government interest rate subsidies. Across categories of borrowers, NPLs increased the most among households, especially in credit card loans, and SMEs (BRSA, 2010; ECB, 2010). Changes in loan classification also contributed to limit the increase.[93]

After peaking in 2009, NPLs drastically declined to new record lows thanks to buoyant credit growth, and to better scoring and risk management techniques in the banking system. The sharp decrease in NPLs is also due to the opportunity Turkish banks had to sell part of their NPL portfolio to reduce the NPL ratio.[94] At the same time, NPL collection rates are relatively high in Turkey, strengthening the case for banks to keep (still profitable) NPLs on the balance sheet rather than selling them. In this regard, the high volume of collection in the years subsequent to the global financial crisis generated negative NPL formation, contributing to the decrease of the NPL ratio (Erdem, 2013).

Lately, the NPL ratio has barely inched up notwithstanding the heightened volatility in exchange rates and interest rates along with softening GDP growth since the second half of 2013. While NPLs remain low in a cross-country perspective, in particular relative to other emerging markets in the region, some shortcomings in asset classification and provisioning requirements remain, leading to a tendency to underestimate the level of NPLs (IMF, 2012). Some of the concerns for the evolution of NPLs stem from loans to SMEs, credit card loans and credit to low-income households. Loans to SMEs expanded rapidly in the recent past, leaving SMEs more exposed to interest rate hikes, as these firms borrow predominantly at short maturities and in local currency. Additionally, the recent BRSA decision to reduce provisioning requirements on SME loans further encouraged such kind of lending. With softer economic growth, NPLs among households might also rise, in particular for poorer households, whose debt-to-income ratios have reached high levels (OEDC, 2014).

[92] The 'Istanbul approach' was a process of loan restructuring enshrined in law No. 4743/2002. It allowed companies unable to pay their debts to financial intermediaries to restructure them and obtain further financing. The approach was operational between 2002 and 2005, with 318 enterprises participating in the programme. The total amount of loans restructured was about USD 6 billion, or 16 per cent of the total gross volume of loans in the banking system as of end-2002 (BRSA, 2009).

[93] NPLs would have been around 1.0-1.5 percentage points higher at their 2009 peak in the absence of forbearance measures related to loans classification. These measures were terminated in March 2011 (IMF, 2012).

[94] According to the banking law, banks and asset management companies (AMCs) are allowed to acquire NPLs of factoring and leasing companies as well as consumer finance entities to provide solution-oriented services to bank borrowers. As of end-2014, AMCs managed 37 per cent of total NPLs.

2.6. Dollarization and currency mismatches

The Turkish banking sector has long been characterized by a high degree of dollarization, both in assets and liabilities. Before the 2001 crisis, high and volatile inflation rates, unsuccessful macroeconomic stabilization efforts and a continuously depreciating exchange rate all contributed to high dollarization ratios (Metin-Özcan and Us, 2007). In particular, massive deposit dollarization was economic agents' response to a highly volatile and uncertain environment. At the same time, foreign currency loans accounted for the majority of loans granted by the banking system as a strategy to shift currency risk onto the borrower (Metin-Özcan and Us, 2009).

In the aftermath of the 2000-01 crisis, both domestic loans and deposits denominated in foreign currencies started declining, and stabilized at around 30-35 per cent, reflecting the success of the disinflation strategy and the cleaning up of the banking system (Figure A2.13). However, foreign currency deposits have inched up again recently, to above 40 per cent, owing to a lack of confidence in the authorities' ability to keep macroeconomic variables in check, as witnessed by the recent difficulties experienced by the CBRT in hitting its inflation rate target and the related de-anchoring of inflation expectations (IMF, 2014a). On top of this, jitters in global financial markets, coupled with domestic political uncertainties, have also contributed to the resurfacing of deposit dollarization.

While households are prohibited from taking bank loans in foreign currency, and thus typically hold a long net foreign asset position, the level of liability dollarization has increased to very high levels in the corporate sector over recent years. Non-financial corporations have accumulated, domestically and on international markets, substantial foreign exchange liabilities and as of end-2015 the total of these liabilities (vis-à-vis both residents and non-residents) was equivalent to about 40 per cent of GDP. Since 2009 a new regulation has widened the set of corporates that are allowed to borrow in foreign currencies, including firms that have income in Turkish lira but satisfy certain conditions.[95] As a consequence, domestic bank loans in foreign currency surged from around USD 40 billion in 2008 to more than 160 billion in 2015.[96] These loans represented about 60 per cent of the total corporate foreign exchange liabilities.

The (short) net foreign currency position has more than doubled since 2008 and was above 24 per cent of GDP in 2014, showing a sharp increase in the dollarization of the corporate sector (Figure A2.14). This phenomenon represents a significant indirect exposure of the banking sector, as the financial of corporate borrowers has become increasingly vulnerable to adverse movements of the exchange rates.

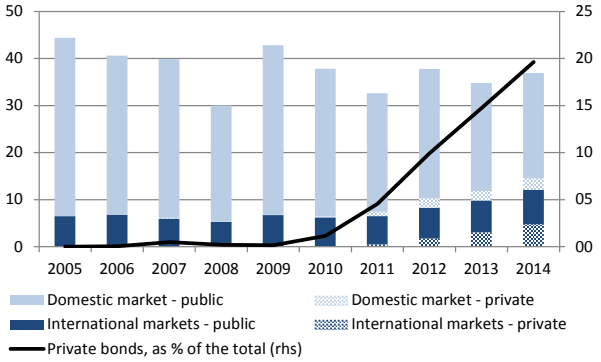
[95] The new regulation permits lending in foreign currency to domestic firms with no income streams in foreign currency, provided the loan is with a maturity of at least 1 year and for a minimum of USD 5 million, or without any condition on maturity or amount if adequately collateralized by foreign currency deposits in a domestic bank branch or foreign currency denominated bonds issued or guaranteed by an OECD country government or central bank.

[96] Roughly a third of such loans granted to corporates operating in the energy, construction and, recently, the real estate sectors. In particular the latter has recently shown a significant increase in foreign currency lending, generating concerns on the ability of the real estate sector to have a natural foreign exchange hedge (IMF, 2014a).

Figure A2.1 Main components of the financial system in Turkey as % of GDP

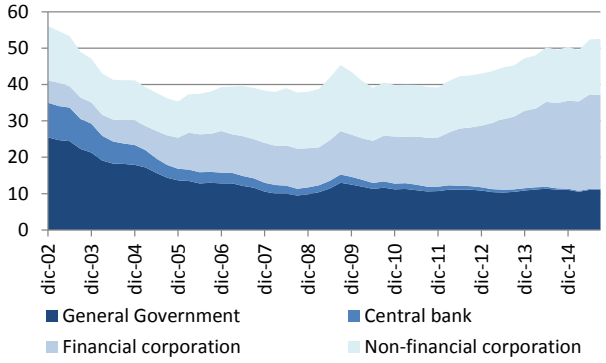
Source: BIS, IMF *International Financial Statistics* and World Federation of Exchanges.

Figure A2.2 Total debt securities, as % of GDP, and private debt securities, as % of total debt securities, in Turkey



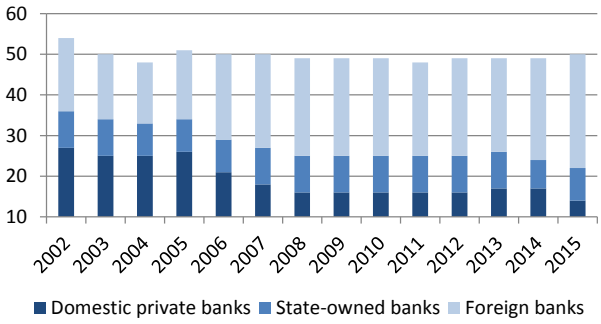
Source: BIS.

Figure A2.3 Turkey's gross external debt as % of GDP



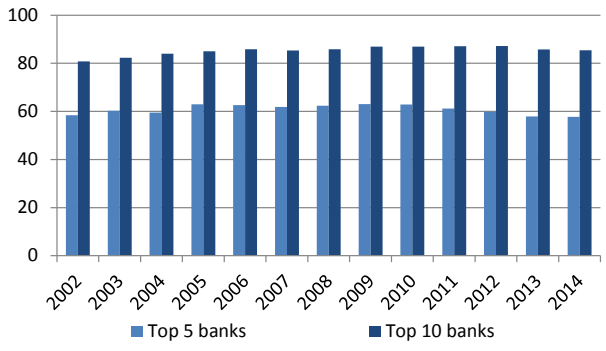
Source: CBRT and IMF *International Financial Statistics*.

Figure A2.4 Number of Turkish banks, units



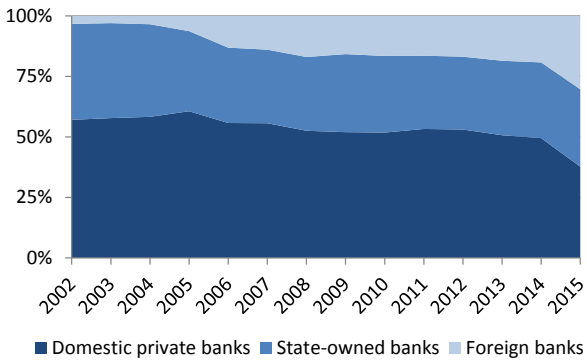
Source: BRSA.

Figure A2.5 Concentration in the Turkish banking system as a percentage share of total assets



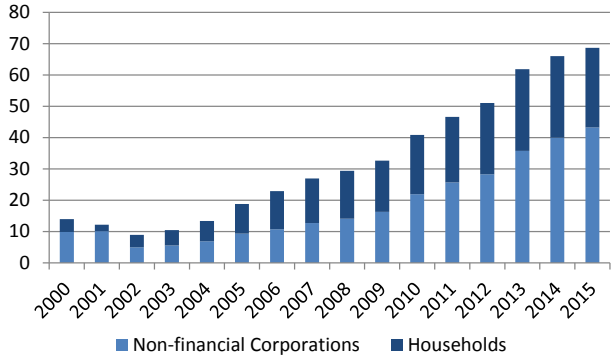
Source: Turkish Banking Association.

Figure A2.6 Market shares of Turkish banks by ownership structure, as % of total assets



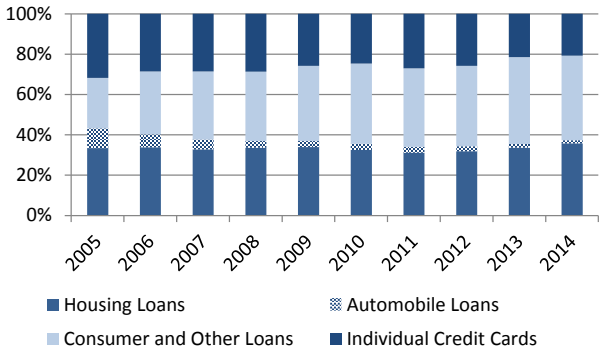
Source: BRSA

Figure A2.7 Stock of credit to the private sector in Turkey as % of GDP



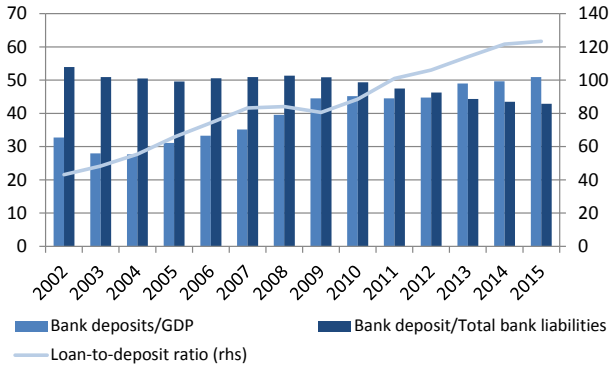
Source: CBRT, IMF *International Financial Statistics* and *World Economic Outlook.*
Note: 2015 data are as of November. Households include NPISH and Individual Corporates.

Figure A2.8 Loans to households in Turkey, by type of loan



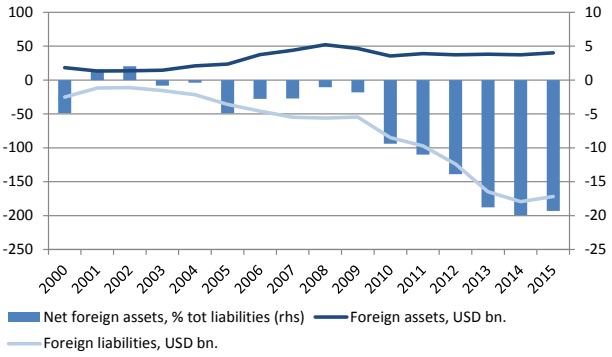
Source: BRSA.

Figure A2.9 Bank deposits, as % of GDP and total bank liabilities, and loan-to-deposit ratio, %, in Turkey



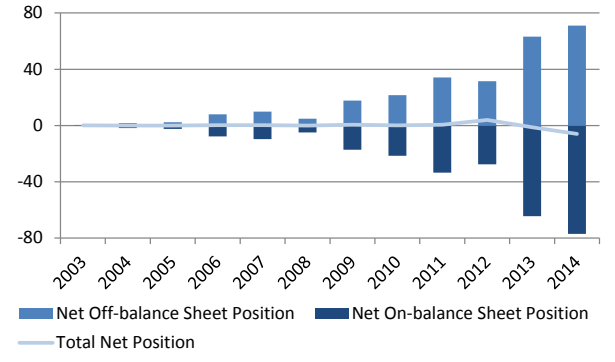
Source: CBRT, BRSA and IMF *International Financial Statistics*.

Figure A2.10 Foreign assets (+) and liabilities (-) and net foreign assets position of the banking sector in Turkey



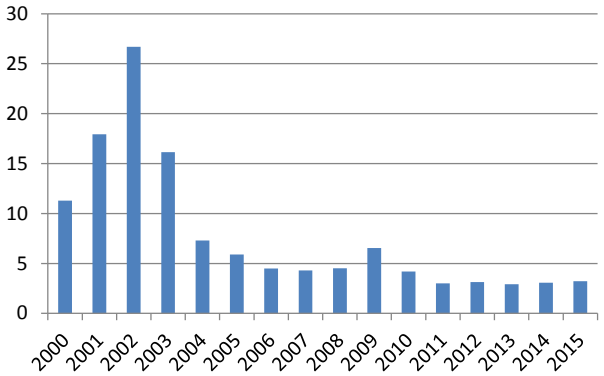
Source: Based on CBRT data.

Figure A2.11 Net foreign exchange position of the Turkish banking sector, billions of USD



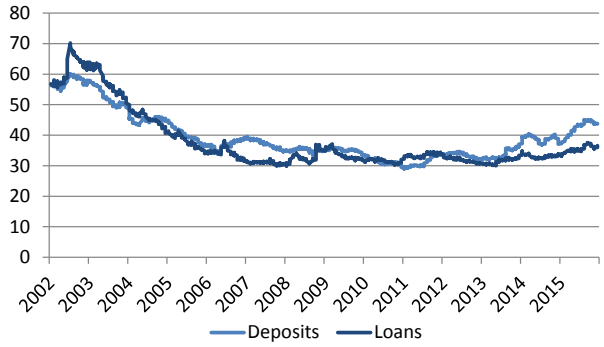
Source: BRSA.

Figure A2.12 Non-performing loans in the Turkish banking system as % of total loans



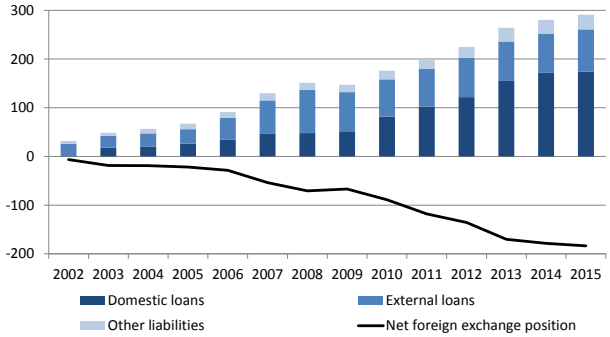
Source: BRSA.

Figure A2.13 Deposits and loans denominated in foreign currency in Turkey as % of total domestic deposits and loans



Source: BRSA.

Figure A2.14 Foreign exchange liabilities and net foreign exchange position of non-financial corporations in Turkey, billions of USD.



Source: CBRT.

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