Turkish Banking Industry: A CAMELS Analysis

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1 Introduction

The Turkish financial system has had a long history of economic and financial crises. However, it experienced remarkable progress in performance following the restructuring programme after the last crisis in the country in 2001. Because weaknesses in the banking sector were considered to be one major culprit of the crisis, efforts to restructure the Turkish economy were particularly focused on the banking industry. Many inefficient banks were closed down or merged with stronger banks. Several foreign players (including Citigroup, Fortis, and BNP Paribas) started to invest in the Turkish banking system after 2004, at which time the

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banking sector entered a "growth period" (Aysan et al. 2009). The regulatory, supervisory, and macroprudential measures taken by the financial authorities after the global financial crisis also increased the resiliency of the Turkish banking system. In addition to having a resilient asset structure, it also has a sound capital base thanks to restrictive regulatory requirements and a notable, well-developed approach to liquidity management.

The successful implementation of the programme was reflected in the banking sector structure. Private banks increased their regulatory capital, which had eroded during the 2001 crisis. Those banks that failed to underwrite new capital had to merge with other banks or were nationalized by the Savings Deposit Insurance Fund (SDIF). State-owned banks were restructured and recapitalized after the 2001 crisis. Non-performing loans (NPLs) that were on the balance sheets of the state-owned banks were settled against government debt securities, and the financial structures of these banks were strengthened. At the same time, the Banking Supervisory and Regulatory Agency (BRSA) gained greater autonomy with accountability for systemic banking stability. Laws and regulations regarding banks' activities were revised in 2005 and converged with internationally recognized standards. Fukuyama and Matousek (2011) found that Turkish banks positively reacted to this consolidation and restructuring process and that bank efficiency had gradually improved and cost-efficiency scores peaked immediately after the restructuring programme was introduced. However, they found a gradual deterioration of bank efficiency from 2004 to 2007, and they explained this negative trend by the strict regulatory rules imposed by the BRSA.

The Turkish financial system is dominated mainly by the banking sector. As of late 2016, the size of the financial sector reached approximately USD 1.2 trillion. Total banking sector asset size is around USD 780 billion (Table 1), which was only USD 51.6 billion in late 1995. Currently, 51 banks operate in the sector, of which 5 are participation banks, 5 are state banks, and 21 are foreign banks. In 2016, the total assets of the Turkish commercial banks were around USD 700 billion, whereas participation banks had nearly USD 38 billion, and investment and development banks had USD 40 billion in assets.

Table 1 Overview of Turkish banking sector (late 2016, million USD)

	Total assets	Credit	Deposit	Equity
Commercial banks	700,031	444,433	391,580	14,503
Participation banks	37,701	21,536	23,064	2,222
Investment and development banks	40,613	28,558	0	5,667
Banking sector	778,347	494,529	414,916	22,394

Source: Banking Regulation and Supervision Authority (BRSA)

Turkish banks have a strong capital structure and efficient risk management approach. The intermediation function has been performed much more efficiently compared to the pre-2001 crisis era, and the credit-to-deposit ratio reached 123% as of December 2016. The Turkish banking sector has higher profitability ratios than the banking sectors of many countries, including European Union countries. Return on equity is greater than 10%, and return on assets is almost 1.5%. The banking industry as a whole documented an 18.3% rate of growth in deposits and 19.7% increase in credit volumes in 2015. However, owing to geopolitical risks, an attempted military coup, and depreciation of the local currency, the banking sector's asset size, in USD terms, showed a 4.3% rate of decrease at the end of 2016. The Turkish banking sector maintained its robust position during the global financial turmoil as the profitability of the banking sector continued to be quite high in international standards. In the last 12 years, Turkey has improved the regulatory and supervisory framework and harmonized its banking sector with the best international standards. In this regard, Turkey's banking sector was found to be fully compliant with the Basel II and Basel III standards in risk-based capital standards as well as other capital components regulations as of 2016 by the Regulatory Consistency Assessment Programme (RCAP) coordinated by the Basel Committee in 2016.

If the Turkish banking sector is in better shape today, it is mainly due to implementation of the right policies at home at the right time. The Great Moderation also helped significantly when those reforms were under way. However, it still has its weaknesses, most of which stem from structural problems of the Turkish economy such as low savings rates and, hence, a dependence on foreign capital flows. Relatively higher but volatile economic growth rates over the years do not help the banking industry either. The banks continue to move in a procyclical direction, while regulatory authorities are trying to implement a right mix of monetary and macroprudential policies in times of increasing global financial uncertainty. All these factors are reflected in the various indicators of the banking industry. While some of them, like financial performance indicators, are much better relative to the previous decade, others, such as credit-to-deposit ratio and the low level of competition, signal that there are limits to the banks' further growth.

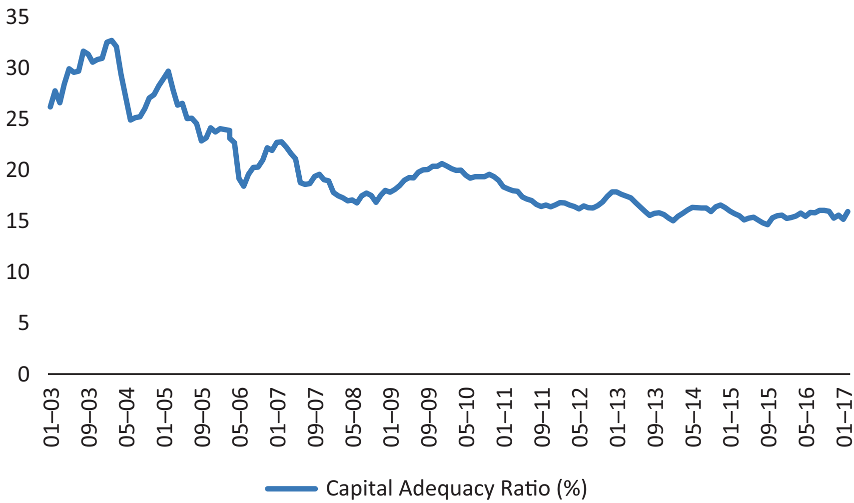
In this paper, we briefly examine the Turkish banking industry by making use of CAMELS analysis. The acronym CAMELS refers to the six component of a bank's condition that is assessed: capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to market risk and interest rate risk. Several academic studies have found CAMELS to be very useful both in summarizing current conditions and in the supervisory monitoring of bank conditions. We then point to the challenges and opportunities facing the Turkish banking industry in the years ahead and conclude with some key lessons.

2 CAMELS

2.1 Capital Structure

The financial reforms implemented following the 2001 crisis and the excessive prudence of the supervisory authorities led banks to hold high capital ratios. Until 2005, the average capital adequacy ratio (CAR) in the banking sector was above 20%. It then continued to perform at these levels, although it showed a slight decrease in 2011. The CAR of the Turkish banking sector has remained around 16% for more than 5 years, above the legal ratio (8%) and the target ratio (12%) of the BRSA as of October 2016 (Graph 1).

The capital structure of the Turkish banking system is much better than that of the banks in most countries. The persistently high proportion of the main capital ratio shows that the prudential approach to banking still continues. There are also some disadvantages of having a high capital ratio. Since the capital ratio is measured in relation to



Graph 1 Capital structure of Turkish banks (Source: Central Bank of the Republic of Turkey (CBRT))

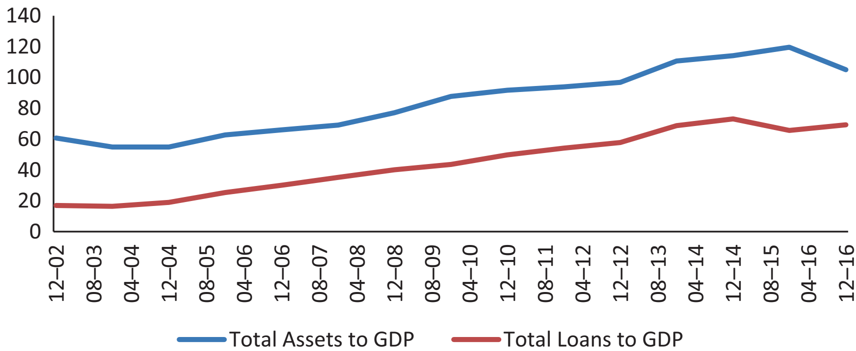
risk-sensitive assets, the banks do not give credit to high-risk entities, which may cause harm to real sectors and economic growth. In many countries, banks hold several items as elements of capital such as convertible bonds issued by banks as Tier 2 products or additional Tier 1 instruments. These products are very rare in Turkish banks' capital structure, and the Tier 1 common equity capital has an important share in the capital structure of Turkish banks.

2.2 Asset Quality

Thanks to the Turkish banking sector's strong capital structure and efficient risk management applications, the industry has increased its asset size. In 2016, the banking sector's total assets reached USD 778 billion. Its lending reached 1609 billion Turkish lira (TL) as of October 2016. The cumulative annual credit growth rate in TL was 27% between 2002 and 2016, well above the global average. The average deposit growth rate was 19% between 2002 and 2016 in TL. A rule of thumb suggests that when the sum of the assets in the banking sector in a country exceeds gross national income, the financial wealth of the citizens is also positively influenced by economic growth. In this context, the Turkish banking sector's total assets to total national income exceed 100%. At the end of 2015, the ratio of total assets to gross domestic product (GDP) exceeded 120%, but it then decreased to 105% by the end of 2016 (Graph 2).

However, it is clear that the Turkish banking sector has increased its assets significantly over time. Yener et al. (2007) divide the Turkish banking system into two segments, commercial banks and non-depository banks. Commercial banks have an authority to collect deposits, while the others do not. Yener et al. (2007) claim that commercial banks in Turkey operate as universal banks. In other words, they offer a broad range of products and services to their customers. The second group of banks concentrate on investment activities. Although the shares of development and investment banks and participation banks have increased, the Turkish banking sector is still dominated by deposit banks, which are typically commercial banks.

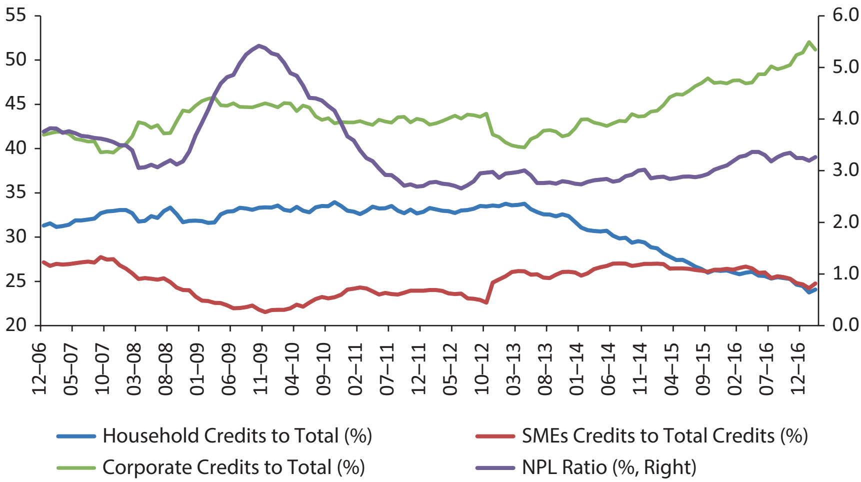
The Turkish banking sector's total loan ratio has increased in the last 13 years, though its ratio to GDP is far below 100% (Graph 2). In particular, there was massive credit growth in the 2011–2012 period. However, annual credit growth started to decrease after 2012 because of a tight monetary policy stance and the implementation of new macroprudential policies such as higher risk weights and provisions for consumer



Graph 2 Ratio of total assets and total loans to GDP (Source: CBRT)

loans, an increase in the loan-to-value cap for housing loans and vehicle loans, credit card payment regulation, and maturity restrictions for uncollateralized consumer loans. Hence, it should be noted that the ratio of non-bank corporate credit to GDP remains lower than that of advanced countries, which signals that there is ample room for financial deepening. It is expected that credit will continue to grow at moderate rates owing to the introduction of several macroprudential measures.

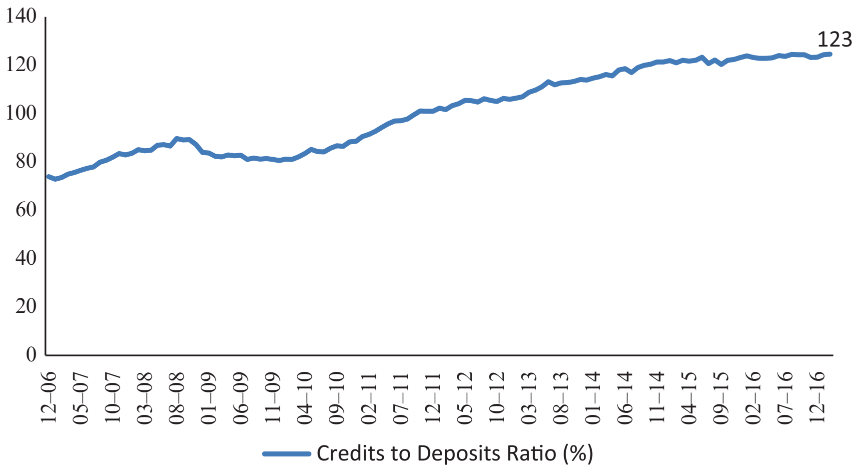
One of the most significant problems in fast-growing economies is that the deterioration of NPLs is not easily seen in the good times. Therefore, it is necessary to impose macroprudential measures in a timely manner. The banking sector continued to enjoy high asset quality while the NPL ratio stood at low levels. As of October 2016, the NPL ratio was 3.3% (Banking Regulation and Supervision Agency 2016). Although NPLs have been on a rising trend due to a slowdown in consumer demand and economic growth, the increase in these ratios is low in comparison with the 2009–2010 period (Akıncı et al. 2013). Moreover, it should be stressed that currently, the NPL ratio in the Turkish banking sector is much lower than that of many advanced economies, especially European countries (Graph 3).



Graph 3 NPLs and credit share of households, corporations, and small and medium-sized enterprises (Source: CBRT)

Managing the balance between costs associated with NPLs and income is and will be an important issue in the years to come. Though macroprudential measures and regulations are very efficient in controlling NPLs, new reforms and other financial stability measures should be taken to mitigate their risks (Aysan et al. 2015). Loan demand decreased compared to 2011 due to the many macroprudential measures taken by the CBRT and BRSA, especially after 2012. Today, Turkish banks' loan growth is more sustainable compared with the higher trend before 2012. The household leverage ratio (liabilities/assets) has also been declining since 2012.

Although there is stability regarding household indebtedness, exchange rate movements increased non-bank corporate debt in 2016. Accordingly, macroprudential measures such as consumer loan risk weights are expected to support credit growth in the upcoming period. On the other hand, the probability of exchange-rate-related risk in the private sector remains low because of the increasing share of long-term foreign-currency-denominated loans in recent years. These loans continue to be concentrated in larger firms that are relatively better at risk management.

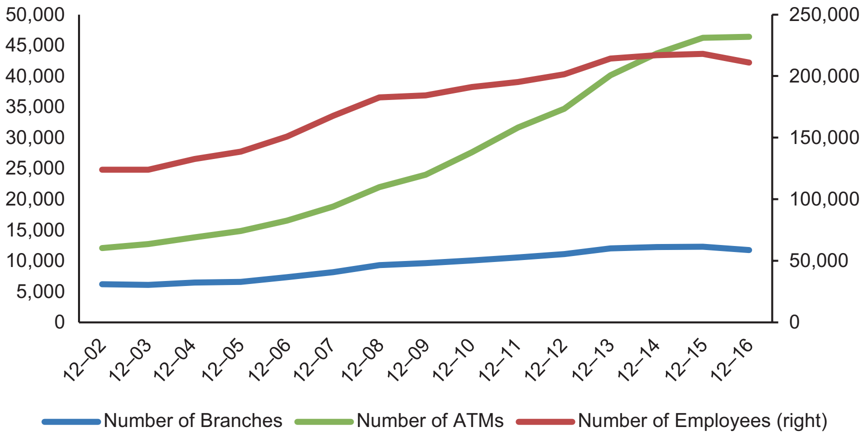


Graph 4 Credit-to-deposit ratio (Source: CBRT)

The ratio of credits to deposits is alarming because it has exceeded the threshold of 100% (Graph 4). Historically it was less than 100% before 2012. Since the Turkish banking sector has a strong capital base, stable funding, and low foreign currency risk, this ratio would not be a big problem in the short run. On the other hand, the Turkish banking system is capable and very careful in managing exchange rate risk. The ratio of foreign-currency-denominated liquid assets to foreign-currency-denominated other resources has not changed much since 2012. Although banks include the exchange rate risk on their balance sheets, they mitigate it via off-balance-sheet operations. In doing so, the banking sector maintains a neutral net general FX position. While external borrowing has declined, favourable borrowing costs and longer maturities signal that banks hold a positive outlook when it comes to accessing external funding sources.

2.3 Management Capabilities (Financial Performance, Governance, and Rating)

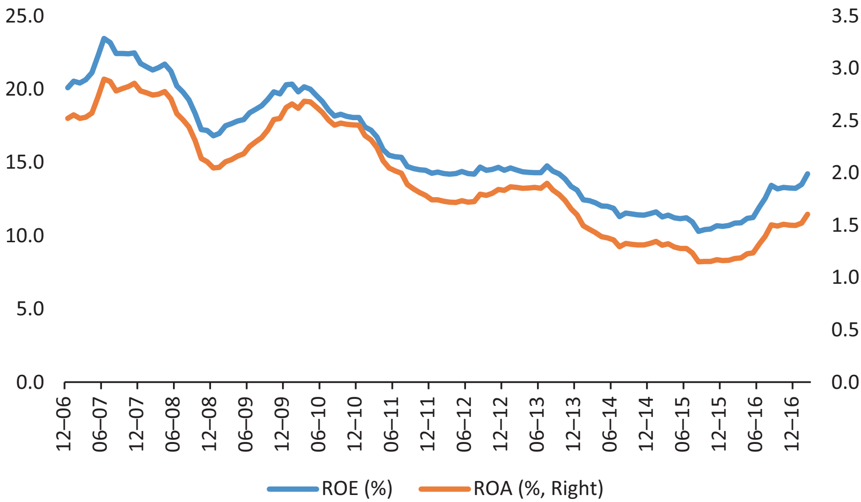
A well-educated management team and calibrated good corporate governance rules increase efficiency and decrease idiosyncratic risks. The management system in the Turkish banking sector is very competitive and similar to international counterparts. Turkish banks are aware of the constant need to increase the quality of their services and decrease costs. In this connection, the Turkish banking sector increased the number of ATMs to facilitate banking services and to reduce their costs related to branches and employees. The number of ATMs and branches is increasing, but the employment rate increase is very slow in comparative terms (Graph 5). The recent increase in the number of branches signals a tough competitive environment among banks but also suggests that opening up new branches can increase costs and result in lower efficiency, as argued by Aysan and Ceyhan (2008).



Graph 5 Number of ATMs, employees and branches (Source: CBRT)

2.4 Earnings

In a high-inflation-rate environment with economic growth, the banking sector, based on consumer loans, made huge profits after 2001. After the 2008 crisis it witnessed decreasing profitability. Profitability indicators for the banking sector started to deteriorate by mid-2013, when the U.S. Federal Reserve announced a tapering policy to reduce the amount of money it was feeding into the system, which led to the so-called taper tantrum, and this trend continued until September 2015. Interest expenses increased as a result of rising funding costs, which caused a decline in profitability in the sector. However, the banking sector is still very profitable. A more efficient management of non-interest expenses is the primary element partially limiting the negative effects of rising funding costs. Although there has been a decrease in the return on equity (ROE) and return on assets (ROA) in comparison to 2007, the sector's average ROE and ROA ratios are higher than those of many European banks. By the end of 2016, ROE was around 14 and ROA 1.5% at the end of 2016 (Graph 6).

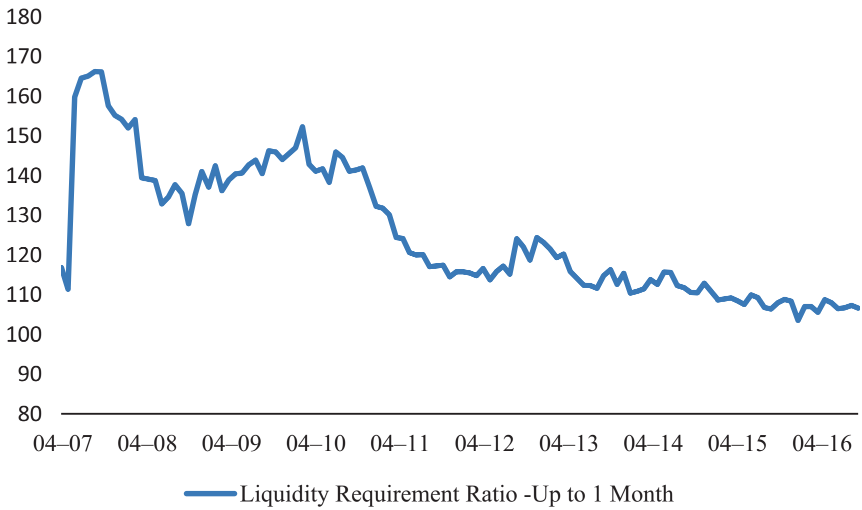


Graph 6 Return on equity and return on assets of Turkish banking system (Source: CBRT)

2.5 Liquidity Structure

The last global financial crisis revealed the importance of liquidity risk management, and many countries have accordingly changed their regulatory framework to mitigate several risks, including liquidity risk. Bank liquidity is a crucial component in managing bank assets. A resilient and robust liquidity management framework can ease the transformation of maturity between liabilities and assets. Without enough liquidity, a bank may face several risks, such as fiduciary risk, operational risk, maturity transformation risk, and other risks that affect the bank's financial stability as a whole. Turkey did not experience a major liquidity problem during the global financial crisis and has not experienced one since the crisis. Currently, the liquidity position of the Turkish banking system is quite strong. The liquidity requirement ratio – up to a month – is more than 100% (Graph 7).

On the other hand, several structural changes have been made to liquidity components. The liquidity structure of the Turkish banking system reflects monetary policy changes made by the CBRT and the



Graph 7 Liquidity requirement ratio (Source: CBRT)

BRSA. As a result of monetary policy and macroprudential policies of regulators, the share of securities available for sale and investment decreased, whereas required reserves increased after 2011. During this time, the main concern was to control credit growth, which was annually more than 40%. The CBRT and the BRSA decided to implement many macroprudential policies for managing credit growth. These attempts have definitely changed the liquidity structure of the banking system.

2.6 Sensitivity to Market Risk and Interest-Rate Risk

The Turkish banking sector's data show that the sensitivity to market risk and interest-rate risk has not increased, though the ratio of foreign debt to bank assets is rising (Graph 8 and Table 2 respectively). The net interest margin ratio of the Turkish banking sector has decreased slightly in recent years thanks to falling interest rates. There is an increase in the ratio of foreign debt to bank assets, but it is around 20% (Graph 8). On the other hand, the net interest margin of the Turkish banking sector was

Graph 8 Foreign debt to banks assets (Source: CBRT)

Table 2 FX loans to total loans and FX deposits to total deposits

	Total credit (million TL)	Total deposits (million TL)	FX loans/ total loans (%)	FX deposits/ total deposits (%)	Net interest margin (%)
12.02	48.981	137.973	59	57	5.10
12.03	66.222	155.312	45	49	5.06
12.04	99.342	191.065	35	45	6.36
12.05	156.410	251.490	27	37	5.37
12.06	218.987	307.647	26	39	4.71
12.07	285.616	356.865	24	35	4.88
12.08	367.445	454.599	29	35	4.72
12.09	392.621	514.620	27	34	5.44
12.10	525.851	617.037	27	30	4.30
12.11	682.893	695.496	29	34	3.45
12.12	794.756	772.217	26	33	4.07
12.13	1.047.410	945.770	28	37	3.72
12.14	1.240.708	1.052.693	29	37	3.53
12.15	1.484.960	1.245.428	32	43	3.45
12.16	1.734.342	1.453.632	35	42	3.64

Source: CBRT

3.6%, down from 4.6% in 2006, but still relatively higher than that of its emerging market peers.

Turkish banks' level of exposure to credit risk is low. The Turkish banking sector has almost entirely hedged its FX lending, though the cost of hedging is increasing. The sector has many buffers against the indirect risk caused by the FX liabilities of non-financial corporations thanks to its ability to adapt to global changes and to its high-quality collateral obtained from non-financial corporations.

Macroprudential policies are expected to encourage long-term external funding to reduce the banking sector's susceptibility to adverse developments in global markets by lengthening maturities. The Turkish banks' ratio of FX general positions to regulatory capital remains stable, whereas the ratio of on-balance-sheet foreign currency deficit to regulatory capital keeps increasing. Accordingly, the developments in the global economy, domestic markets, balance of payments, and public sector have proved influential and effective at maintaining financial stability during these times. Global and local markets, as well as the balance of payments and the public sector, have contributed favourably to financial stability.

3 Challenges and Opportunities Ahead

The fact that the rate of increase in deposits continues to slow down while the ratio of credit to deposits is growing presents a major challenge for the Turkish banking sector in the years ahead. Several factors seem to be effective at reducing the rate of increase in deposits. Lower savings and relatively high inflation rates may be among the main reasons. Furthermore, financial inclusion may not enhance the income of depositors. More likely, in an environment where real interest rates are low, people may prefer not to put their deposits in a bank. Another reason may be the increase in construction investment, which means people may prefer to invest in real estate rather than parking their cash in a deposit account. As a result, the growing banking sector is more dependent on outsourcing and syndicated loans. However, the syndication loan cost is linked to credit rating. This implies a more reasonable scenario that either foreign funding needs to be sustainable as previously or domestic savings will increase.

Indeed, a glance at the last three decades reveals how the growth rate of the Turkish economy and Turkish financial sector are sensitive to global conditions. This in large part stems from the fact that the domestic savings rate is low in comparison to many emerging countries. Foreign capital flows thus play a prominent role in explaining both the volatility and growth of the Turkish economy. In a period of high capital inflows, both the real economy and the financial sector benefit and have high growth rates. On the other hand, both suffer and show a slowdown in bad times. Moreover, sometimes a rosy global picture is not enough if the domestic economic and political stability are not maintained. The Turkish economy in the 1990s illustrated this well. It was, after all, a lost decade for Turkey mainly as a result of domestic political uncertainty. A cloudy and cold global climate does not necessarily translate to a worse scenario for the Turkish real economy and the financial sector when local economic and political policies are correct and implemented well. The period after the recent global financial crisis is a case in point. It is striking to note that with a right combination of political and economic decisions, the Turkish economy has rebounded very quickly from the trough of the crisis and performed relatively very well.

Recall that recent global liquidity conditions are indicating a tighter turnaround for many emerging markets, including Turkey. The measures taken in the framework of Basel III and the reforms being carried out should all be in full force soon, which may result in tighter conditions for banks. Moreover, structural conditions no longer make it easy for the banking sector to grow; on the contrary, they make it even more challenging. Regulations implemented in the context of increases in capital market financing arrangements and the Istanbul International Finance Centre project show that banks are likely to enter a more challenging era.

Regarding competition in banking, Turkey is not a good example and differs from other emerging countries. Yıldırım (2014) argued that the level of competition in the Turkish banking system did not increase despite the restructuring undertaken at the time and the increased foreign bank competition. She further found that the level of competition in the sector deteriorated during the global crisis. It seems that strong economic growth in the last decade positively strengthened Turkish banks.[1] Aydemir (2014) also found that the market structure of the Turkish banking industry, which is very concentrated, is conducive to a lack of competition. This is not surprising given the fact that greater concentration in the marketplace is associated with less competition. Foreign bank entry is likely to strengthen competition in banking. Aysan et al. (2014) argued that there are procompetitive spillover effects from foreign banks on their domestic counterparts that boost banking outreach. Süer et al. (2016) also found that increases in foreign ownership lead to a decrease in accounting profits owing to the increased competition and or greater efficiency. In any case, there is ample room for the government to promote banking competition in all parts of Turkey.

From an economic policy perspective, it is clear that there is a need for a more developed and diversified financial sector in Turkey. The dominant role of the banking sector and heavy dependence on bank loans pose threats to long-term macroeconomic stability. Turgutlu (2010), for example, provides strong evidence regarding the counter-cyclicality of Turkish banks' margin. In other words, Turkish banks can easily fail to provide sufficient funds to economic actors when there is an immediate need, especially in times of economic contraction, and hence can delay economic recovery. To overcome the obstacles posed by bank the dominant financial sector, financial instruments should be differentiated further and their use encouraged by authorities.

Accordingly, Turkish banks must find new ways to increase their profits and mitigate their risks while continuing to provide financing to non-financial corporations. In this sense, issuing or arranging capital market products and providing more risk-sharing instruments or equity financing seem to be important areas in which banks could expand their activities. Certainly, diversification of income sources would also help banks to mitigate the negative effects of possible economic downturn periods associated with a decline in loan portfolios and an increase in NPLs.

4 Conclusion

In this chapter, we briefly examined the Turkish banking system using a CAMELS approach with a focus on recent developments. The ROA and ROE of the Turkish banking sector are at a comparatively satisfactory level and have been trending higher lately. The increase in profitability in the sector strengthens capital, and the slowdown in the loan growth rate limits risk-weighted asset growth. The Turkish banking system continues to remain resilient to interest-rate shocks and maintains its resilience to exchange-rate risk. Banks' use of foreign resources for the moment remains stable, and their liquidity buffers are adequate to cover shocks in global liquidity conditions. It is fair to say that, overall, the Turkish banking sector has remained resilient and continued to preserve its credibility in domestic and international markets in a period marked by increased volatility in global markets.

The Turkish financial industry faces both opportunities and challenges. After all, it is a concentrated bank-based financial sector. There is ample room for the development and diversification of financial markets, institutions, and instruments. Recent experience suggests that in order to mitigate the risks in an uncertain global economic environment, one should do her homework well and act proactively. Given the structural problems of the economy and its dependence on foreign capital inflows, eventually, the Turkish banking system will need to resolve these fragilities. In the case of a sudden stop in capital flows, the private sector's problems can easily turn into bankers' problems. Prudently, Turkish banks still have some time and capital to prepare for that moment.

Notes

1. See also Aysan et al. 2013. "Bank Competition and Outreach: Evidence from Turkey",

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