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FINANCIAL SECTOR ASSESSMENT PROGRAM

January 2015

MACROPRUDENTIAL POLICY FRAMEWORK—TECHNICAL NOTE

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TECHNICAL NOTE

MACROPRUDENTIAL POLICY FRAMEWORK

Prepared By
Monetary and Capital Markets Department

This Technical Note was prepared by IMF staff in the context of the Financial Sector Assessment Program in Georgia. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations.

CONTENTS

Glossary

BCBS	Basel Committee for Banking Supervision
BCP	Basel Core Principles for Effective Banking Supervision
BIS	Bank for International Settlement
CCB	Countercyclical Capital Buffer
CD	Certificate of Deposit
CESEE	Central, Eastern and South Eastern Europe
CPI	Consumer Price Index
DSTI	Debt-Service-to-Income
ESRB	European Systemic Risk Board
EU	European Union
FSAP	Financial Sector Assessment Program
FSR	Financial Stability Report
FSSA	Financial Sector Stability Assessment
FX	Foreign Currency
GEL	Georgian Lari
IMF	International Monetary Fund
LTV	Loan-to-Value
NBG	National Bank of Georgia
PTI	Payment-to-Income
USD	U.S. Dollar

EXECUTIVE SUMMARY

The National Bank of Georgia (NBG) has a broad mandate to safeguard financial stability in Georgia and has applied several measures that can be considered macroprudential. For instance, the NBG adjusted risk weights for foreign-currency (FX) loans to unhedged borrowers in a countercyclical manner in recent years. Going forward, it plans to introduce the Basel III countercyclical capital buffer regime for the banking system in 2015, which will require that it sets or releases the buffer on a regular basis, based on assessments of cyclical risks.

Policymakers should consider establishing a full-fledged macroprudential policy framework in line with international best practices. The current framework is too broad to support the effective and transparent use of macroprudential policy going forward. An improved system would involve a revised legal framework to cement the use of a broad range of macroprudential instruments, the establishment of a Financial Stability Committee at the NBG level, and strong accountability and communication practices, including by the publication of regular reports on financial stability. The list of available macroprudential instruments should go beyond risk buffers and allow the NBG to set measures that directly influence the banks' activities, e.g., through the application of loan-to-value (LTV) or payment-to-income (PTI) caps.

The introduction of macroprudential measures for FX-induced credit and liquidity risks have led to a strengthening of banks' risk buffers. On the asset side, additional risk weights are applied to FX loans to unhedged borrowers, while on the liability side, reserve requirements are higher for FX deposits and other borrowings. Furthermore, banks have to hold more liquidity for nonresident deposits (of which 92 percent are in foreign currency as of end-2013), if those deposits exceed 10 percent of total deposits. Combined with the general liquidity regulation, these measures have increased banks' capital and liquidity buffers, as shown in the results of the FSAP solvency and liquidity stress tests.

The planned introduction of buffer requirements to mitigate cyclical and structural risks is a welcome step. The countercyclical capital buffer and the capital surcharge for systemically important banks are planned to be implemented over the next few years. The capital surcharge for systemically important banks, which would currently apply at least to the three largest banks by total assets, is particularly important in the Georgian context due to the high market concentration in the banking sector.

Despite recent progress in decreasing dollarization, further macroprudential instruments should be employed to address indirect FX risks and support dedollarization:

- *Asset side:* The NBG should limit FX lending to unhedged borrowers, at the minimum, for the riskiest forms of lending in line with the European Systemic Risk Board (ESRB) recommendation on FX lending,[1] as well as for short-term loans for which local-currency alternatives are available and used by parts of the banking sector. The recent reduction in lending rates that partly stems from accommodative monetary policy, together with a relatively stable exchange rate in recent years, should support this process. These instruments would also reduce the NBG's need to support dedollarization by accepting nonmarketable collateral in local currency for refinancing operations in normal times.

- *Liability side:* The vulnerabilities of the banking system that stem from the reliance on short-term funding, in particular in foreign currency, may be reduced by targeted measures to lengthen the maturity of FX deposits and promote certificates of deposits (CDs). This policy may be supported by various prudential instruments, such as more differentiated FX reserve requirements with respect to nonwithdrawable CDs with maturities exceeding six months, or a more favorable treatment of local-currency liabilities in liquidity regulations compared to FX liabilities, such as in the minimum average liquidity ratio or in the Liquidity Coverage Ratio (LCR), which is expected to become legally binding for Georgian banks from September 2014.

Additional tools may need to be applied to address the potential build-up of concentration and credit risks. The introduction of concentration limits for the largest borrowers (e.g., limits on Top-5 or Top-10 loan exposures) should prevent excessive concentrations in banks' loan portfolios. Moreover, the NBG should consider applying loan-to-value (LTV) or debt-service-to-income (DSTI) caps as macroprudential instruments, possibly differentiated by currency, or sectoral risk weights as targeted measures to limit the growth in banks' exposures to high-risk market segments.

The coordination of monetary and prudential policies at the NBG level seems to be working well. Going forward, well-targeted macroprudential policies should allow monetary policy to focus on price stability and prevent the build-up of risks and vulnerabilities within the financial system. The NBG's independence will be of crucial importance for achieving both goals.

[1] Recommendation of the ESRB of 21 September 2011 on lending in foreign currency (ESRB/2011/1), https://www.esrb.europa.eu/pub/pdf/recommendations/2011/ESRB_2011_1.en.pdf?317f524338354d3adb606ee86401296a (retrieved May 25, 2014).

INTRODUCTION[2]

1. The National Bank of Georgia (NBG) has a broad mandate to safeguard financial stability in Georgia in addition to its responsibilities for monetary policy and banking supervision. The financial stability mandate is enshrined in the central bank law and gives the NBG broad powers in the field of macroprudential oversight, without prejudice to its primary objective of price stability.[3] The legal mandate is rather general and does not specify the scope of policy instruments the NBG may apply in order to mitigate systemic risk and ensure financial stability.[4]

2. Georgia has applied several measures that may be qualified as macroprudential. For instance, the NBG adjusted risk weights for FX loans to unhedged borrowers and liquidity requirements in a countercyclical manner in recent years. The additional risk weight of 75 percent, which is currently applied by the NBG to FX loans to unhedged borrowers, was originally set at 100 percent (2002–2008). It was reduced to 50 percent during the period of financial distress and limited lending (2008–2010) and raised again to 75 percent when credit growth recovered (2011). A similar pattern can be observed for reserve requirements and the minimum average liquidity ratio, which were released following the conflict with Russia and the global economic and financial crisis in 2008, and increased again in 2010/11.[5]

3. International experience underscores the need for an effective macroprudential policy framework to achieve financial stability. The role of macroprudential policy is to complement existing microprudential supervision and regulation to identify and address emerging risks across the financial system as a whole. These risks are not sufficiently covered by the microprudential perspective, which focuses on the soundness of individual institutions and does not adequately account for systemic issues such as cyclical risks, common risk exposures, or spillover effects. Such systemic risks can be assessed through stress tests and other analytical tools that have been developed in recent years and are partly applied by the NBG.[6] There is a growing international consensus among policymakers that effective macroprudential policy frameworks are needed to facilitate a timely and adequately strong policy response on the basis of the risk assessment in order

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[2] This Technical Note has been prepared by Maximilian Fandl.

[3] Art. 3 Organic Law of Georgia on the NBG.

[4] According to Art. 47 Organic Law of Georgia on the NBG, the central bank shall "support (the) stable and effective functioning of the financial system, control of systemic risk, establishment of (a) competitive environment, (and the) reduction of potential risks."

[5] Reserve requirements were increased in 2007 to counteract the pre-crisis credit boom, partly released in 2008 to help the system during the liquidity shortage and raised again in 2010 and 2011 to restore the pre-crisis level and address funding risks associated with FX deposits. Also, the minimum average liquidity ratio, which is currently 30 percent, was reduced to 20 percent in 2008 in response to the crisis-induced liquidity shortage of Georgian banks, before raising it to its current level in 2010.

[6] Blancher et al (2013) provide an overview of systemic risk assessment and monitoring tools.

to prevent the build-up of vulnerabilities within the financial system and the costs associated with instability (IMF 2013c).

4. This note assesses the macroprudential policy framework in Georgia and discusses the ways in which it could be strengthened going forward. The next section examines the institutional arrangement and decision-making process. The following section discusses macroprudential instruments with a view toward addressing selected risks and vulnerabilities in the Georgian financial system. The concluding section discusses the coordination between macroprudential policy and other policies.

INSTITUTIONAL ARRANGEMENTS

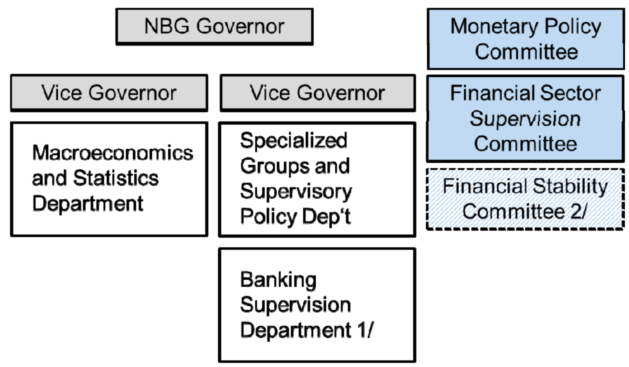
5. The Governor of the NBG acts as the main decision maker in the field of financial sector supervision in Georgia. Decisions that may be qualified as macroprudential are currently made in the form of decrees and written notes to commercial banks. The decision-making process assigns a key role to the Financial Sector Supervision Committee that is established at the level of the central bank and includes the governor, the vice governor for financial sector supervision, the vice governor for monetary policy, and relevant managers. The committee is mainly responsible for making specific recommendations on financial sector supervision and regulatory policy to the governor, who is in charge of taking the final decision.[7] At the current stage, the decision-making process does not differentiate between micro- or macroprudential measures. The NBG plans to set up a separate internal Financial Stability Committee, which would make recommendations on macroprudential policy to the governor going forward and include representatives of monetary policy and financial supervision departments within the NBG.

6. Most tasks related to financial stability analysis and macroprudential policy are performed by the NBG's Specialized Groups and Supervisory Policy Department. Within the department, which comprises the "risk teams" as opposed to the "bank teams" in the Banking Supervision Department, the Financial Risks and Macro Prudential Policy Division, with a current staff of three analysts, is mostly involved in stress testing of the banking system and the assessment of macroeconomic and funding risks. Further macroprudential oversight activities are allocated to other divisions within the same department, most importantly the credit risk divisions. Findings are regularly exchanged within the department, with the Banking Supervision Department and the Macroeconomic and Statistics Department[8] through the so-called "financial stability working group," which consists of middle management and experts and effectively combines micro- and macroprudential aspects of supervision (Figure 1). Overall, the organizational setup does not provide a clear separation between banking supervision and financial stability tasks on the operational level.

[7] Art. 16 Organic Law of Georgia on the NBG. A similar committee is established for monetary policy (Art. 17 Organic Law of Georgia on the NBG).

[8] Issues relevant for individual banks are shared with the Banking Supervision Department and systemic issues are discussed with the Macroeconomic and Statistics Department.

Figure 1. Georgia: Institutional Arrangement at the Central Bank



Sources: NBG, Author.
Note: Selected NBG Representatives and Departments involved in financial stability issues.
1/ Banking Supervision Department focused on microprudential supervision.
2/ Financial Stability Committee not implemented as of May 2014.

7. **The transition to Basel III with a countercyclical capital buffer regime provides an opportunity to move to a full-fledged macroprudential policy framework in line with international best practice.** Pillar 1 of the Basel II/III capital framework will apply in Georgia from June 2014, in parallel to the current provisions under Basel I that will act as a floor and will be gradually phased out from 2015 to 2017. With the transition to the Basel III capital standards, the NBG also plans to introduce the Basel III countercyclical capital buffer regime for the banking system in 2015, which requires that the designated macroprudential authority sets or releases the buffer on a regular basis, based on assessments of cyclical risks in the financial system.

8. **Georgia should consider moving to a macroprudential policy framework that is more formalized and transparent, while maintaining enough flexibility to deal effectively with financial stability risks.** In particular, the following measures are recommended:

- *Revising the legal framework:* The legal basis for macroprudential policy should be revised to make it more specific with respect to the objective, scope, and range of instruments the NBG may apply to strengthen financial stability in Georgia. The current legal framework does not define the scope of the NBG's macroprudential powers and may therefore limit its ability and willingness to set appropriate measures. The bias toward inaction is partly mitigated by the fact that the NBG does not only have the mandate for monetary policy and financial stability, but also for the direct supervision of banks, which account for 95 percent of total assets of the Georgian financial system as of end-2013. Nevertheless, in light of the intended use of new macroprudential instruments, such as the countercyclical capital buffer, the central bank law should be revised to establish a sound macroprudential policy mandate and consistent implementation practices on which decisions may be based. The list of available instruments should go beyond risk buffers and allow the NBG to set measures that directly influence the banks' activities, e.g., through the application of loan-to-value (LTV) or payment-to-income (PTI) caps.[9] Overall, the framework should be more explicit with respect to available instruments, while maintaining the flexibility of the NBG to take other regulatory actions as well, given that new risks may call for new tools or new ways of adapting the macroprudential toolkit. The revision of the legal framework may be guided by the recommendation of the European Systemic Risk Board (ESRB)[10] on the macroprudential mandate of national authorities, which has triggered similar changes in many EU member states over the last few years.

- *Establishing a Financial Stability Committee:* The NBG's initiative to set up a financial stability committee as an advisory internal body at the central bank level is a welcome step. The committee should discuss risks to financial stability in Georgia and prepare macroprudential policy decisions for adoption by its governor. It should meet at least quarterly or more often if warranted by the risk situation. A separate financial stability council would also need to be set up in order to coordinate financial stability policy at the national level. This Council would be comprised of the NBG, MOF, securities and insurance regulators, and other stakeholders.[11]

- *Strengthening the accountability framework:* More formalized and transparent macroprudential powers of the NBG should be matched with strong accountability. This accountability should include: (i) an ex-ante communication of the overall strategy with respect to macroprudential policy; (ii) a detailed communication of the considerations that led to particular policy decisions; and (iii) an ex-post assessment of the effectiveness of the actions taken.

- *Publishing Financial Stability Reports (FSRs):* The NBG used to publish FSRs on an annual basis from 2006 to 2011, but discontinued this practice in 2012. Going forward, the NBG should consider reintroducing a similar reporting format in line with international best practice in order to inform market participants, and the general public, about its assessment of systemic risks and policy actions taken to mitigate the risks. Regular FSRs would increase their awareness of emerging risks and further support the NBG's accountability as the macroprudential authority in Georgia.

9. The NBG should establish a financial stability unit. The macroprudential framework should be supported by an effective early warning system to identify and monitor risks to the

[9] A generic overview of macroprudential instruments is provided by IMF (2013c) and ESRB (2014a, 2014b). Cross-country information on instruments applied in 131 IMF member states as of 2013 is available in the online database of the IMF 2013 Global Macroprudential Policy Instruments Survey.

[10] Recommendation of the ESRB of 22 December 2011 on the macroprudential mandate of national authorities (ESRB/2011/3), OJ 2012/C 41/01, http://www.esrb.europa.eu/pub/pdf/recommendations/2011/ESRB_2011_3.en.pdf?7129748d8621714dbd09ce7af188034c (retrieved May 25, 2014).

[11] Please see the discussion in the Technical Note on Safety Nets, Bank Resolution Framework, Crisis Preparedness and Management Arrangements.

financial system as a whole. There is merit in setting up a dedicated unit at the NBG that focuses on these issues, as opposed to single-bank issues, while maximizing synergies with the existing "risk teams." Based on internationally common practices and their suitability in a Georgian context, the new unit should, at the minimum, (i) perform stress tests of Georgian banks on a regular basis; (ii) incorporate macroeconomic development and risks, which are analyzed by the Macroeconomic and Statistics Department, into its assessment of specific financial stability risks; (iii) prepare policy measures on macroprudential policy for the Financial Stability Committee; (iv) assess the impact and effectiveness of existing and proposed future macroprudential measures; and (v) exchange views on stability risks with other policymakers, market participants, rating agencies, analysts, and international financial institutions. Given the importance of external vulnerabilities, it should also assess the risk of international spillovers on the Georgian financial system. The unit needs to be adequately staffed to fulfill the stated tasks.

SELECTION OF MACROPRUDENTIAL INSTRUMENTS

10. The NBG needs a well-equipped toolkit to deal with risks to financial stability. A description of current prudential measures is provided in Annex 1. Over the next few years, the NBG intends to implement the countercyclical capital buffer regime and to introduce a capital surcharge for systemically important banks, which are welcome steps to mitigate cyclical and structural risks. Additional tools will be necessary to target indirect FX risks related to the high level of dollarization, as well as concentration and credit risks as discussed in the following.

Instruments to address indirect FX risks and support dedollarization

11. Macroprudential measures for FX-induced credit and liquidity risks associated with the high level of dollarization have led to a strengthening of banks' risk buffers. On the asset side, additional risk weights have been applied to FX loans to unhedged borrowers. On the liability side, reserve requirements are higher for FX deposits and other borrowings. Furthermore, banks have to hold more liquidity for nonresident deposits (of which 92 percent are in foreign currency as of end-2013) if those deposits exceed 10 percent of total deposits (Box 1). Combined with the generally tight liquidity regulation through the minimum average liquidity ratio of 30 percent, which does not differentiate by currency, these measures have increased banks' capital and liquidity buffers, as shown in the results of the FSAP solvency and liquidity stress tests.

12. Dedollarization has actively been promoted through monetary policy. The NBG successfully contributed to the dedollarization process of the financial system through monetary policy measures that fell into three broad groups: (i) measures to develop the local currency money market, e.g., by main refinancing operations and standing facilities in GEL; (ii) less conservative local currency reserve requirements compared to those for FX liabilities;[12] and (iii) acceptance of local

[12] Reserve requirements are lower for local-currency liabilities with maturities below two years compared to those of foreign-currency liabilities. In addition, the NBG applies reserve averaging for local-currency reserve requirements over a two-week maintenance period.

currency denominated loans as eligible collateral for NBG refinancing operations. In addition, the Georgian government supports the dedollarization strategy by an increased volume of government securities in circulation. A major step in local currency capital market development was taken in March 2014 with the first issuance of a GEL-denominated bond by an international financial institution.[13] Overall, the level of dollarization of banks' loans and deposits has been on a declining trend for the last few years (Figure 2), which is a welcome development both from a monetary policy and a financial stability perspective. While it has to be recognized that the process of dedollarization will take time and require sound macroeconomic policies, low inflation, and a stable banking sector over an extended period of time, the authorities should consider additional policy measures to speed up the process in order to reduce the high indirect exposure of the banking sector to the floating USD-GEL exchange rate.[14]

13. Further macroprudential instruments should be employed to address indirect FX risks and support dedollarization:

- *Asset side:* The NBG may consider limiting FX lending to unhedged borrowers—at the minimum—for the riskiest forms of lending in line with the ESRB recommendation on FX lending,[15] as well as for short-term loans for which local-currency alternatives are available and used by parts of the banking sector.[16] The recent reduction in lending rates that partly stems from accommodative monetary policy, together with a relatively stable USD-GEL exchange rate in recent years, should support this process (Figure 2). These instruments would also reduce the NBG's need to support dedollarization by accepting nonmarketable collateral in local currency for refinancing operations in normal times.

- *Liability side:* The vulnerabilities of the banking system that stem from the reliance on short-term funding, in particular in foreign currency, may be reduced by targeted measures to lengthen the maturity of FX deposits and promote certificates of deposits (CDs). This policy may be supported by various prudential instruments, such as more differentiated FX reserve requirements with respect to nonwithdrawable CDs with maturities exceeding six months, or

[13] EBRD issuance of a two-year bond of GEL 50 million on March 17, 2014: http://www.ebrd.com/pages/news/press/2014/140317.shtml (retrieved May 25, 2014).

[14] In line with the high level of financial dollarization, some real assets in Georgia such as land or houses are typically quoted in USD. Nevertheless, most borrowers do not have income in USD and are unhedged against FX fluctuations. The additional FX-induced credit risks have been partly addressed by the additional risk weight for FX-loans to unhedged borrowers mentioned above, which strengthened banks' risk buffers but did not result in a widespread shift towards lending in local currency ever since the introduction of the measure (see Figure 2 and Annex 1).

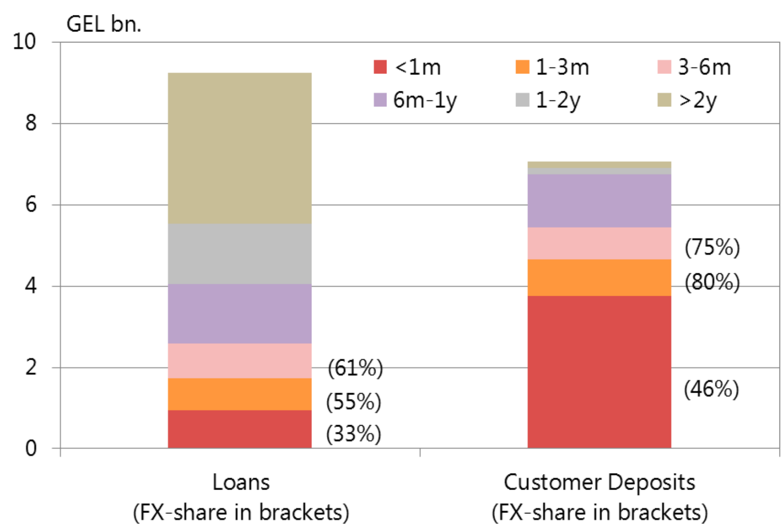
[15] Recommendation of the ESRB of 21 September 2011 on lending in foreign currency (ESRB/2011/1), https://www.esrb.europa.eu/pub/pdf/recommendations/2011/ESRB_2011_1.en.pdf?317f524338354d3adb606ee86401296a (retrieved May 25, 2014).

[16] Aggregate credit risks in the Georgian banking system could be markedly reduced if short-term loans to private households (consumer loans , overdrafts, etc.) were mainly granted in local currency. While short-term lending activities by some banks already take place mainly in the local currency segment, short-term FX loans to unhedged private households remain popular for the banking system as a whole.

a more favorable treatment of local-currency liabilities in liquidity regulations compared to FX liabilities, such as in the minimum average liquidity ratio or in the Liquidity Coverage Ratio (LCR), which becomes legally binding for Georgian banks from September 2014. Similar prudential measures managed to support dedollarization efforts in other countries.[17] [18]

- **Funding risks could be markedly reduced by de-dollarizing short-term deposits.** As shown in Figure 3, almost half of customer deposits (including current accounts) with residual maturities of less than a month are denominated in U.S. dollars, which expose the banks to significant FX funding risks. The NBG sets tight liquidity requirements, as discussed above, which lead to a significant negative carry for banks in holding liquid assets in foreign currency, which they have to compensate by other income sources. While the current liquidity regulation sets some incentives for banks to attract local-currency deposits, it did not manage effectively to reduce the underlying FX funding risk, but it strengthened the banks' risk buffers. Hence, the application of additional instruments, as stated above and summarized in Table 1, seems warranted to reduce the underlying FX funding risk.

Figure 2. Georgia: Loans and Customer Deposits by Maturity and Currency

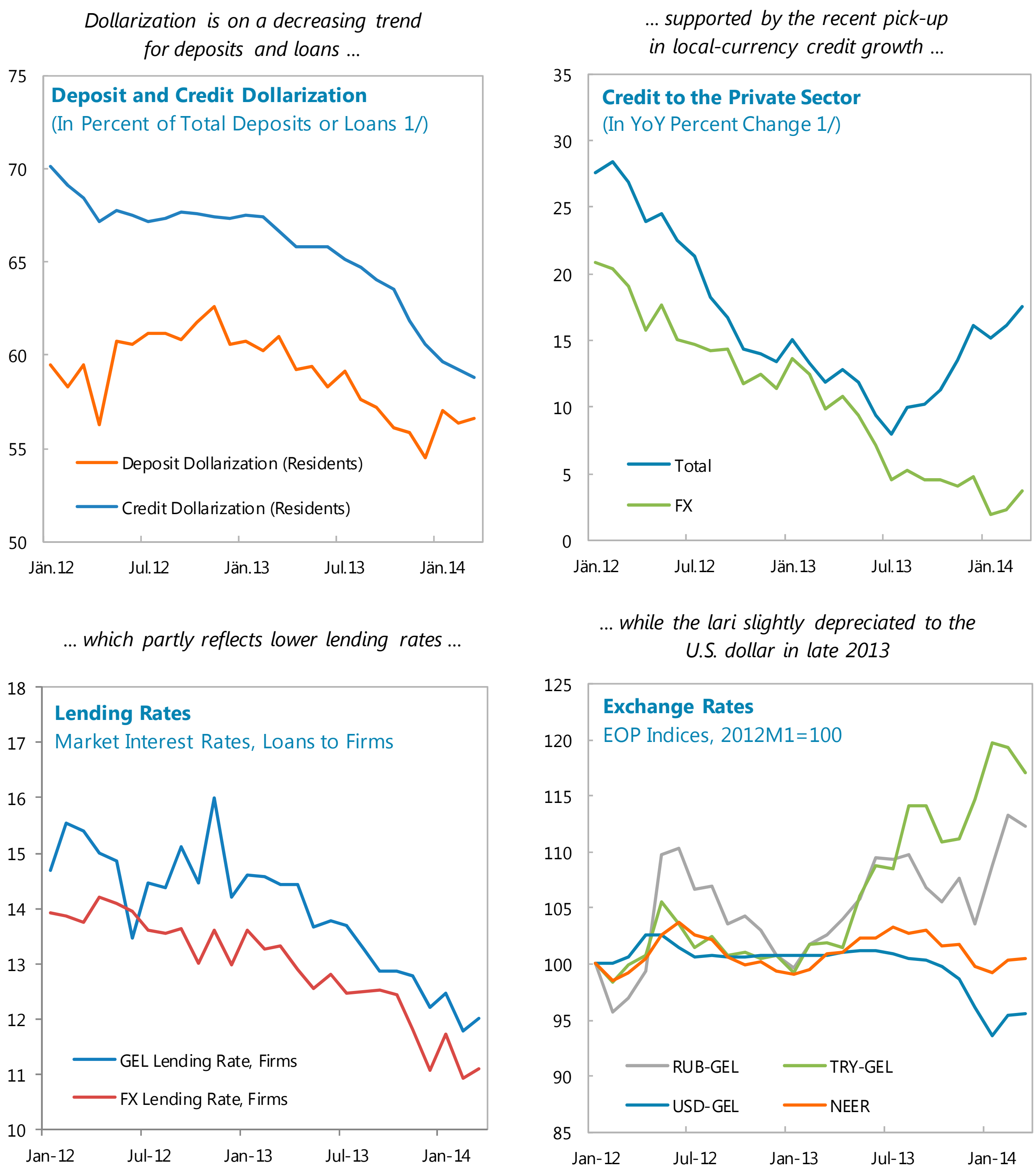


Source: NBG, staff calculations, data as of October 2013.
Gross loans and customer deposits (current accounts, demand and term deposits).

[17] Kokenyne et al (2010) provide a cross-country overview of prudential measures to support dedollarization, including a discussion of their effectiveness.

[18] Measures to support dedollarization on the asset and liability side of banks' balance sheets have to be coordinated in order to prevent the creation of open currency positions.

Figure 3. Georgia: Dollarization in the Georgian Banking Sector



Source: National Authorities; and IMF staff estimates.

1/ In constant exchange rates from one year prior.

Table 1. Georgia: Policy Response to Dollarization in the Georgian Banking Sector

Issue	Policy Response
Asset Side	
Credit Risk FX loans to unhedged borrowers expose banks to additional credit risk. About 62 percent of loans are denominated in foreign currency, mostly in U.S. dollars and by borrowers that are unhedged (i.e., no income in U.S. dollars). *Buffer* The capital adequacy ratio of the banking system stands at 17.2 percent (end-2013), which is more than 5 percentage points above the minimum capital requirement.	*Current Measures:* Additional risk weight of 75 percent for FX loans to unhedged borrowers *Recommended Measures:* ➔ Limit FX lending to unhedged borrowers, at the minimum for the riskiest forms of lending and for short-term loans for which local-currency alternatives are available ➔ Exert moral suasion on banks to encourage and facilitate conversions of existing FX loans to unhedged borrowers into local-currency loans (or alternatively their refinancing by local-currency loans)
Liability Side	
Liquidity / Funding Risk A large share of FX deposits (about 62 percent) exposes the banking sector to liquidity risk, in particular in U.S. dollars. *Buffer* The banking system as a whole is characterized by strong liquidity buffers, partly due to conservative liquidity standards. The average monthly liquidity ratio stood at 41.8 percent in December 2013. *Safety Net* No deposit guarantee scheme is in place and systemic liquidity in U.S. dollars is limited.	*Current Measures:* Higher reserve requirements for FX deposits and other borrowings Additional liquidity requirement for non-resident deposits if they exceed 10 percent of total deposits Minimum average liquidity ratio of 30 percent without differentiation by currency *Recommended Policy Priorities:* ➔ Lengthen the maturity of FX deposits ➔ De-dollarize very short-term deposits *Recommended Measures:* ➔ Apply (i) more differentiated FX reserve requirements with respect to certificates of deposits with maturities >six months; and (ii) a more favorable treatment of local-currency liabilities in liquidity regulations such as the minimum average liquidity ratio or the Liquidity Coverage Ratio (LCR), which becomes legally binding for Georgian banks from September 2014. ➔ Complete the safety net (see Technical Note on Crisis Management and Bank Resolution Framework)

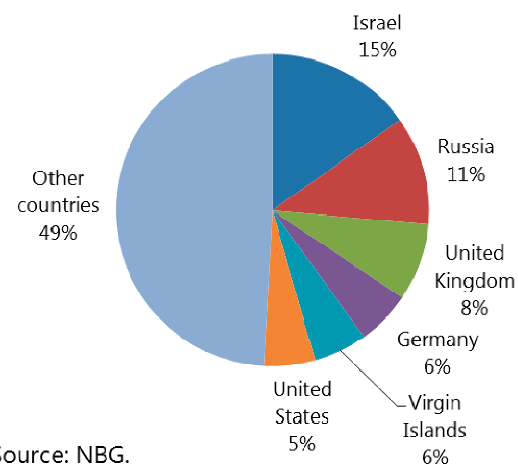
Box 1. Nonresident Deposits in Georgian Banks

The surge in nonresident deposits creates funding risks and does not support the authorities' "larization" strategy. Nonresident deposits grew rapidly after the 2008/09 crisis and accounted for GEL 1.5 billion or 15 percent of customer deposits as of April 2014, concentrated mostly in large banks. The depositors are mostly located in Israel, Russia, United Kingdom, and offshore countries, of which about two-thirds are individuals (many of Georgian origin) with an average deposit of more than US$500,000. The collection of nonresident deposits is carried out by foreign representative offices of the two largest banks. Overall, the associated funding risks are high, given that those deposits are largely short-term (59 percent of them have residual maturities of less than three months) and denominated in foreign currency (92 percent). While recognizing that some longer-term nonresident deposits may reduce banks' duration gaps, the overall business strategy of attracting foreign currency deposits abroad also raises doubts on the country's larization efforts.

Since early 2013, the growth of nonresident deposits has slowed, partly due to the NBG's policy response. Since 2013, banks have had to hold more liquidity for nonresident deposits if they exceed 10 percent of total deposits. In addition, higher run-off rates for short-term deposits are applied in the Liquidity Coverage Ratio (LCR) calculation, which will become binding at the end-2014, and will provide an additional incentive for banks to move into higher maturities in their deposit gathering activities, including by the issuance of certificates of deposit (CDs), which now account for 20 percent of nonresident deposits.

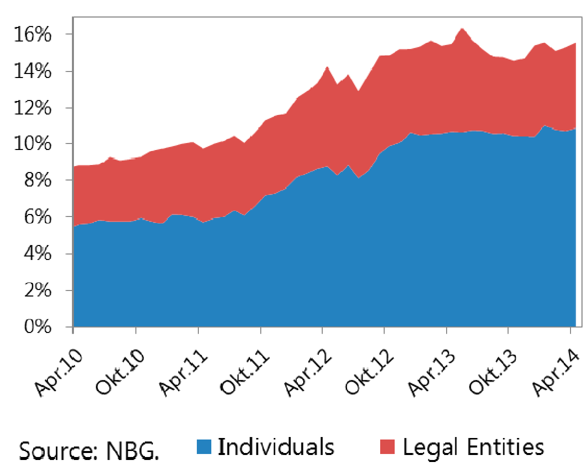
The growth of nonresident deposits deserves continuous and close monitoring. At the moment, the funding risks from nonresident deposits appear manageable, as shown by the liquidity stress test. Should the share of nonresident deposits increase further, the NBG should consider applying further measures to prevent the build-up of systemic liquidity risk.

Non-resident deposits by country



Source: NBG.

Non-resident share in total deposits

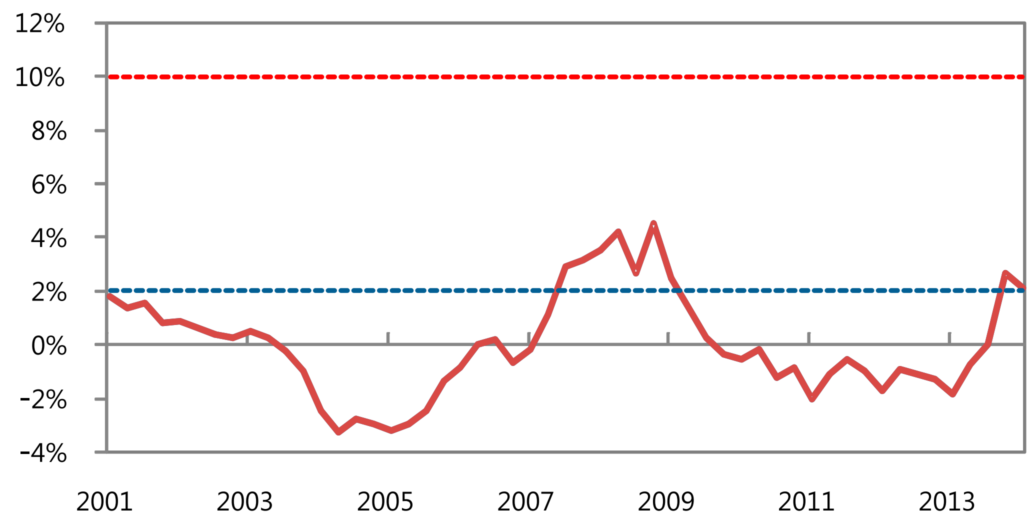


Source: NBG.

Countercyclical capital buffer

14. The planned introduction of the countercyclical capital buffer (CCB) is a welcome step. The NBG intends to establish a CCB regime in line with Basel III standards (BCBS 2010a, 2010b) over the next few months for application starting in 2015. This instrument will allow the NBG to deal more effectively with periods of excessive credit growth and will increase the system's resilience in crisis periods. During boom periods, the CCB should be raised, which on the one hand increases the cost of capital, thereby decreasing credit demand and, on the other hand, induces banks to decelerate the growth of risk-weighted assets, thereby reducing credit supply. Hence, the instrument effectively slows down credit growth when it becomes excessive and supports the build-up of capital buffers in good times. During periods of stress, the CCB should be released, which allows the banks to use the additional buffer to absorb losses without having to restrain the flow of credit to the economy. Overall, the current situation of the Georgian banking system provides a good opportunity to introduce the CCB regime, given that (i) credit growth is picking up (Figure 2); and (ii) the introduction of Basel II/III is expected to release capital for the system over the next few years.[19]

Figure 4. Georgia: Credit-to-GDP Gap 1/



[19] In light of the potential capital release following the Basel II/III introduction and phase-out of the Basel I floor, the NBG as micro- and macroprudential supervisor should monitor risk-weighted assets (RWA) developments on the system level and introduce the Basel III leverage ratio in the medium term in order to address potential excessive gaming of risk weights by banks under Basel II/III. A number of countries, such as Sweden or the United States, are introducing the leverage ratio earlier than foreseen in the Basel framework for similar reasons.

15. The NBG is developing techniques to assess cyclical risks and guide the build-up of the CCB. The buffer decision should be based on reliable leading indicators of system-wide risk, which take the characteristics of the Georgian banking sector into account, combined with judgment by the NBG as the macroprudential authority (so-called "guided discretion"). The credit-to-GDP gap is a useful common reference point in taking buffer decisions (BCBS 2010b) and also performs well for many EU member states (ESRB 2014b). Applying the credit-to-GDP gap methodology by Drehmann et al (2010) to Georgia suggests that the measure is not particularly suited for the country. Figure 4 shows that, in retrospect, the gap reached the 2 percent threshold that signals the activation of the CCB as late as mid-2007, which would have been too late to allow its build-up before the ensuing crisis in 2008/09. Hence, additional indicators have to be explored by the NBG in order to arrive at a reliable technique to guide the build-up phase of the CCB. The process will benefit from the NBG's granular data base on credit developments in Georgia, but may have to be complemented by efforts to improve the data availability on real estate price developments, based on transaction prices rather than offer prices, as is the case at the moment.

16. Once the CCB regime is implemented, the NBG will have to make buffer decisions on a regular basis, with at least quarterly frequency. The Financial Stability Committee should be assigned the task of recommending buffer decisions to the NBG governor, who takes the final decision. Banks should have to meet the CCB with Common Equity Tier I or they will be subject to restrictions on dividend distributions. Following its initial build-up, the CCB should be allowed to swing over the cycle, i.e., it should be released during periods of stress to fulfill its countercyclical purpose.[20] As regards the additional risk weight for FX loans to unhedged borrowers, which the NBG has used for countercyclical purposes in the past, the NBG informed the mission team that it intends to keep it in a slightly amended version, applicable to all loans to unhedged borrowers instead of only FX loans, but it will no longer adjust it in a countercyclical manner once the CCB has been implemented.[21] During the build-up phase of the CCB, the NBG plans to gradually reduce the additional risk weight on unhedged borrowers. This change will enhance the countercyclical effects, given that the CCB applies to all types of credit. Unlike the additional risk weight that currently applies to FX loans to unhedged borrowers, the CCB also requires the build-up of capital buffers for banks that engage in rapid credit growth in risky local-currency market segments.

Capital surcharge for systemically important institutions

17. The NBG uses a sound technique to identify systemically important financial institutions (SIFIs) in line with international standards. SIFIs can impose a negative externality on the financial system as their failure or impairment would have serious consequences for the rest of the system and the real economy. The identification of SIFIs is a prerequisite for measures to contain

[20] Different indicators are needed for the release of the buffer compared to its build up. Recent studies such as ESRB 2014b suggest the use of high-frequency indicators of financial stress for this purpose.

[21] The NBG intends to set the CCB within the range of 0 percent and 2.5 percent, which is in line with the Basel III framework (BCBS 2010a).

those effects and reduce the likelihood of their failure or impairment. The BCBS (2012) has developed an assessment framework for domestically systemically important banks, which serves as an international benchmark and takes four factors into account: size, interconnectedness, substitutability, and complexity. The NBG methodology closely follows this definition and puts most weight on size, which is reasonable, given the current state of development of the Georgian banking sector.

18. The planned introduction of a capital surcharge for systemically important banks is particularly important in the Georgian context due to the high market concentration. Based on data as of end-2013, the additional capital requirement would apply at least to the three largest banks by total assets, which together account for more than three quarters of banking sector assets (Table 2). The NBG plans to introduce the capital surcharge within the next few years but has not taken a decision on its scope, level and starting date yet.

Table 2. Georgia: Market Shares in the Banking Sector, 2013

Bank	Market Share by Total Assets(in percent)
Bank of Georgia	34
TBC Bank	24
Liberty Bank	8
Procredit Bank	6
Bank "Republic"	6
VTB Bank - (Georgia)	5

Source: NBG.

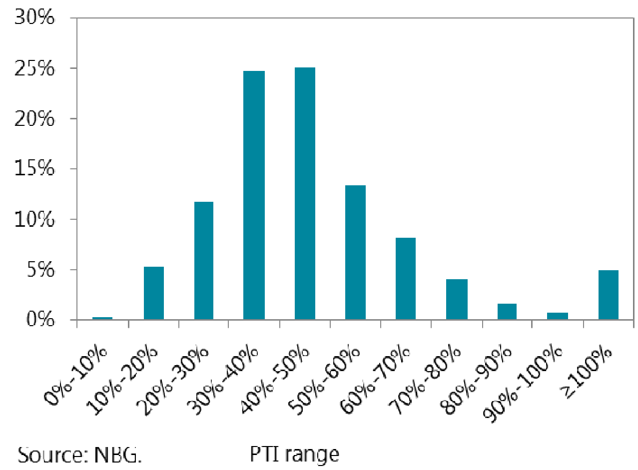
Concentration limits and LTV/DSTI limitations

19. Additional tools may have to be applied to address the potential build-up of concentration and credit risks. The introduction of concentration limits for the largest borrowers (e.g., limits on Top-5 or Top-10 loan exposures per bank) should contribute to the prevention of excessive concentration in banks' loan portfolios. Moreover, the NBG may consider the application of loan-to-value (LTV) or debt-service-to-income (DSTI) caps, possibly differentiated by currency and segment or, alternatively, the use of sectoral risk weights in case of strong growth in banks' risk exposures to high-risk market segments. These risks are currently taken into consideration by the NBG in the context of Pillar 2 of Basel II. In addition, maximum LTV ratios are already applied by the NBG in its collateral requirements for floating-rate mortgage loans denominated in GEL in monetary policy operations.[22] LTV- or DSTI-limitations are also applied as a microprudential requirement by the NBG for some banks. If deemed necessary from a financial stability perspective, their introduction as a macroprudential instrument would strengthen the level-playing field and the level

[22] The NBG applies maximum LTV ratios between 40 percent and 75 percent, depending on type of property and location, for loan assets pledged by banks as collateral for monetary policy operations.

of transparency to the general public. In addition, the NBG should consider introducing caps to DSTI ratios for retail lending, given that one-third of retail borrowers in Georgia currently spend more than half of their income on servicing bank loans (Figure 5).[23]

Figure 5. Georgia: Payment-to-Income Distribution among Retail Borrowers



Source: NBG.

Risk warnings

20. Public communication and risk warnings may serve as additional "soft" instruments. They can be effective when they are issued by central banks that enjoy strong credibility, as is the case for the NBG, and may help to restrain banks or other market participants from certain activities without the need for further regulatory measures. Regular reports on financial stability and related outreach activities may provide opportunities to communicate such warnings. If they are not effective, the NBG may need to apply "hard" tools as outlined above.

COORDINATION WITH OTHER POLICIES

21. Monetary policy and macroprudential policy should be coordinated to some extent, which is facilitated by the allocation of both tasks to the NBG. Given the interaction between the two policy areas, both of them will benefit from the regular exchange of information and analyses within the NBG, as is the case at the moment. At the same time, the decision making, accountability, and communication structures need to be separate for the two policy fields, given their different objectives and instruments.

22. The primary objective of monetary policy in Georgia is to ensure price stability. The NBG moved to an inflation targeting regime in 2009 and, currently, targets annual CPI inflation rates

[23] The PTI distribution among Georgian borrowers may be biased due to existence of borrowers that have informal income, which is not reflected in the PTI ratios. No reliable data is available on the extent of the bias.

of 6 percent in 2014 and 5 percent for 2015 and 2016.[24] Monetary policy is mainly conducted via refinancing operations with the banking sector, yet the transmission mechanism is structurally weak due to the high level of dollarization in the Georgian financial system. Consistent with its inflation targeting objective, the NBG is committed to a floating exchange rate regime, which has the advantage of allowing the economy to adjust externally to shocks through changes of the nominal exchange rate and real interest rates. Despite the absence of a specific exchange rate target, the NBG sometimes intervenes on the foreign exchange market to limit short-term exchange rate fluctuations, to which small open and highly dollarized economies, such as Georgia, are particularly susceptible. In recent months, such interventions have been solely performed through occasional FX auctions, which are preannounced on the same day of transactions.

23. The main objective of macroprudential policy should be to safeguard financial stability. While monetary policy is well suited to respond to changes in aggregate demand, the role of macroprudential measures is more focused on reducing the incentives to excessive risk taking. By affecting the behavior of market participants, it forces them to internalize their contribution to systemic risk and thereby reduces the risk of financial instability. It also provides buffers against unexpected shocks that can and should be used in times of financial stress. Macroprudential instruments can also be more targeted at specific types of exposures or funding sources of financial institutions than those used for monetary policy purposes.

24. Well-targeted macroprudential policies can complement monetary policy in achieving both price and financial stability, as experiences from other countries show (IMF 2013b). In particular, macroprudential policy can contain some undesirable side effects of monetary policy. For instance, conservative limits on LTV or PTI ratios can reduce the impact of monetary policy tightening on borrower defaults. At the same time, they may reduce vulnerabilities in case of surges in asset prices due to accommodative monetary policy (IMF 2013a). More broadly, macroprudential policy can help control unsustainable increases in credit and asset prices and mitigate the procyclical feedback between financial and real variables. Separate tools for macroprudential policy also make the commitment of monetary policy to ensuring price stability more credible to the general public.

25. The NBG's independence is of crucial importance for the effective conduct of monetary and macroprudential policy. While central bank independence has been a cornerstone of the NBG's monetary policy for many years, the NBG may have to take politically unpopular decisions, such as constraining credit growth in its new role as macroprudential authority. Hence, it should be allowed to focus primarily on the objective of financial stability in deciding on macroprudential measures without being bound by other considerations.

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[24] The NBG announces the inflation target for the next three years on an annual basis. The decision has to be approved by the Georgian parliament, most recently on December 11, 2013: https://www.nbg.gov.ge/uploads/mpc/2014/decision_of_parliament_of_georgia2013eng.pdf (May 25, 2014).

The long-term inflation target of the NBG is 3 percent, as stated in the monetary policy strategy of the NBG: https://www.nbg.gov.ge/uploads/mpc/strategia/strategy_2014.03.06eng.pdf (May 25, 2014).

26. The interaction of macroprudential policy and other policies may sometimes give rise to additional coordination issues. The link between micro- and macroprudential policy benefits from the responsibility of the central bank for both areas and is working well as described above. The setup also facilitates the increased coordination needs that emerge from crisis situations in which the micro- and macroprudential perspectives typically diverge to a greater extent, e.g., with respect to the tightening or loosening of capital requirements.[25] Lastly, some coordination with fiscal and structural policies may be useful in case of a rise in the external vulnerabilities of the Georgian economy.

[25] Inter-agency arrangements for crisis management and resolution policies are discussed in the Technical Note on Safety Nets, Bank Resolution Framework, Crisis Preparedness and Management Arrangements.

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Annex I. Prudential Regulation in Georgia

As of May 2014

Instrument	Definition	Required (in percent)	Introduced	Decided by
Additional risk weight for FX loans to unhedged borrowers	Add-on to standard Basel I risk weight for FX loans to unhedged borrowers, adjusted countercyclically	75	2002	NBG
Reserve requirement, differentiated by currency	*Local currency:* - Deposits - Borrowings (incl. CDs) *Foreign currency:* - Deposits (incl. CDs) - Borrowings	 10 10 (<1y) 15 15 (<1y) / 5 (1-2y)	1992 / 2011 by currency	NBG
Minimum average liquidity ratio	Liquid assets / Current liabilities (monthly average) Liquid assets: Cash, NBG funds, NBG securities, Georgian government securities, money market funds in other banks Current liabilities: All deposits, debt securities, borrowed funds <6m, net off-balance-sheet position Additional liquidity required for non-resident deposits that exceed 10% of total deposits (since 2014)	≥30	2001	NBG
Liquidity coverage ratio	Liquid assets / Net cash outflows (30-day stress horizon) Oriented at Basel III LCR with differentiation of run-off rates for type, maturity, residence and concentration of liabilities	≥100	2012 monitoring / 2014 binding	NBG
Limit on open FX position	Limit on overall open FX position as a percent of regulatory capital	<20	2000	NBG

Instrument	Definition	Required (in percent)	Introduced	Decided by
Large exposure regime	*Limits in percent of regulatory capital:* Exposure to single borrower Exposure to group of interconnected borrowers Aggregate large exposure *Limits in percent of total loan portfolio:* Unsecured loans Large exposure: Exposures that exceed 5 percent of regulatory capital	 ≤15 ≤25 ≤200 ≤25	2003	NBG

Sources: IMF 2013 Global Macroprudential Policy Instruments Survey and NBG.