



INTERNATIONAL MONETARY FUND

# PANAMA

## FINANCIAL SECTOR ASSESSMENT PROGRAM

January 19, 2024

# TECHNICAL NOTE

## MACROPRUDENTIAL FRAMEWORK AND POLICIES

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This Technical Note was prepared in the context of a joint IMF-World Bank Financial Sector Assessment Program (FSAP) mission in Panama during May/June 2023 led by Richard Stobo, IMF (and deputy mission chief Marco Gross), and Emile van der Does de Willebois, World Bank (and deputy mission chief Oliver Masetti), and overseen by the Monetary and Capital Markets Department, IMF, and the Finance, Competitiveness, and Innovation Global Practice, World Bank. The note contains the technical analysis and detailed information underpinning the FSAP assessment's findings and recommendations. Further information on the FSAP program can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>.

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## Glossary

BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BNP	Banco Nacional de Panamá (a State-owned commercial bank)
CCB	Capital conservation buffer
CCF	Consejo de Coordinación Financiera (Financial Coordination Council)
CCSBSO	Consejo Centroamericano de Superintendentes de Bancos, de Seguros y de Otras Instituciones Financieras (Central American Council of Superintendents of Banks, Insurance, and other Financial Entities)
CCyB	Countercyclical capital buffer
CFZ	Colón Free Zone
CPMP	Comité De Políticas Macroprudenciales (Macroprudential Policy Committee)
DPR	Dynamic (loan loss) provisioning
DSTI	Debt service to income ratio
DTI	Debt to income
D-SIB	Domestic systemically important bank
EL	Expected loss
FES	Fondo Especial de Estímulo al Sistema Bancario (Fund for Economic Stimulus)
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSD	Financial Stability Directorate (Dirección de Estabilidad Financiera)
FSR	Financial Stability Report (Informe de Estabilidad Financiera)
GEFR	Grupo de Estabilidad Financiera Regional (Regional Financial Stability Group established under the Central American Monetary Council)
HQLA	High quality liquid assets
ICAAP	Internal Capital Adequacy Assessment Process
IMF	International Monetary Fund
IPACOOOP	Panamanian Autonomous Cooperative Institute (Instituto Panameño Autónomo Cooperativo)
IPVN	Indice de Precios de Vivienda Nueva (Price index of new houses)
LCR	Liquidity coverage ratio
LTV	Loan to value ratio
MCM	Monetary and Capital Markets Department (IMF)
MEF	Ministry of Economics and Finance (Ministerio de Economía y Finanzas)

MoU	Memorandum of understanding
NPL	Nonperforming Loan
NSFR	Net stable funding ratio
RMD	Risk Management Directorate (Dirección de Gestión de Riesgos)
SBP	Superintendency of Banks of Panama (Superintendencia de Bancos de Panamá)
SIACAP	Sistema de Ahorro y Capitalización de Pensiones de los Servidores Públicos (System of Savings and Capitalization of Pensions of Civil Servants)
SMV	Superintendencia del Mercado de Valores (Superintendency of the Securities Market)
SSRP	Superintendencia de Seguros y Reaseguros de Panamá (Superintendency of Insurance and Reinsurance of Panama)
TA	Technical assistance
TC	Technical committee
UAF	Unidad de Análisis Financiero de Panamá (Financial Analysis Unit)

## EXECUTIVE SUMMARY<sup>1</sup>

**Since the 2012 FSAP, Panama has significantly strengthened its institutional framework and instruments for macroprudential policy-making.** Among other reforms, to strengthen the transparency of and accountability for macroprudential policy, the Superintendency of Banks of Panama (SBP) and the Financial Coordination Council (CCF) have made significant progress in implementing several of the recent high-priority IMF technical assistance (TA) recommendations. These include establishing a dedicated Macroprudential Policy Committee (CPMP), updating the SBP's decision making process for macroprudential policy issues, drafting a macroprudential policy strategy document, improving public communication via the Financial Stability Report (FSR), and addressing data gaps. The CCF also made notable advancements in establishing its own Committee on Macroprudential Policy, developing member entities' capacity on macroprudential policy, and gathering data.

**The institutional framework for macroprudential policy in Panama broadly meets the principles of good design, in particular for the banking sector, but needs to be further operationalized.** The SBP has adequate capacity to conduct macroprudential policy and broad powers to direct macroprudential policy tools and to collect information from the banking sector. It also has an effective internal process for conducting systemic risk assessments for policy decisions, supported by a dedicated unit—the Financial Stability Directorate (FSD)—and using an adequate set of analytical tools and data. Information sharing with other supervisory agencies to broaden the coverage of systemic risk analysis to the entire financial sector has been established through the CCF and mutual representation of some directors at the Boards of the Superintendencies of Banks, Insurance, and Securities. Following the recent reforms, it will be important to ensure that the institutional framework is further operationalized, including through regular discussions on macroprudential issues, further development of the macroprudential policy strategy, and enhanced interagency cooperation within the CCF to cover all systemic financial sector risks.

**The SBP has well-developed systemic risk monitoring processes, supported by detailed supervisory data, although some gaps remain.** The SBP's semiannual FSR, Monthly Banking Activity Report, and analytical research papers reflect its expanding analytical capacity. Views on systemic risks and vulnerabilities are well articulated and communicated regularly, mainly through the FSR and Monthly Banking Activity Report. Since the last FSAP, the SBP's systemic risk dashboard and stress testing framework have been improved to better identify risks and support decision making. The SBP has developed a sensitivity analysis framework that covers banks' credit risk to guide the calibration of loan-loss provisioning and capital requirements. It is further developing its solvency stress test model with the support of IMF TA. The SBP leverages its broad supervisory powers to collect financial soundness indicators and supervisory data from financial institutions.

**The quality of design and implementation of macroprudential policies will ultimately depend on a number of factors, including the quality of available data.** The SBP has made continuous

<sup>1</sup> This Technical Note has been prepared by Julian Chow, Wim Fonteyne and Romina Kazandjian, IMF.

efforts in ensuring the sufficiency of data for analysis. It established an internal database that contains granular data on all loans from all banks in Panama, including the loan-to-value ratio at origination and subsequent repayment performance for each loan, as well as total debt service payments for each borrower. To address the remaining data gaps on the household and corporate sectors, the SBP is pursuing several initiatives with the objective of supporting the establishment of borrower-based indicators, such as debt-to-income and debt service-to-income ratios.

**The SBP uses a combination of microprudential and macroprudential policies to ensure the soundness and efficiency of the banking system.** The main broad-based measures include a limit on the leverage ratio, dynamic provisioning, and ad hoc and specific provisioning requirements to maintain loss-absorbing buffers and influence sectoral credit growth. A roadmap is in place to guide the gradual and formal implementation of a capital conservation buffer starting in 2023 and a surcharge for domestic systemically important banks (D-SIBs) in Panama. The SBP has also implemented sectoral risk weights targeted at households and the corporate sector. Banks have been complying with the Basel III Liquidity Coverage Ratio (LCR) since 2022Q4. The SBP intends to evaluate the feasibility of a Net Stable Funding Ratio (NSFR) and a countercyclical capital buffer (CCyB) before deciding on their implementation.

**The SBP's timely macroprudential measures have helped strengthen the resilience of the banking sector, notably during the COVID-19 pandemic.** Macroprudential measures have been used to slow credit growth in particular sectors, especially where pockets of vulnerabilities were discovered (e.g., a specific provisioning requirement to reduce banks' exposures toward Colón Free Zone (CFZ) companies during the Venezuelan economic crisis). During the pandemic, along with a framework for temporary debt service relief, a 3 percent ad hoc provisioning requirement was implemented by the SBP for loans benefiting from such relief, and banks were allowed to use their dynamic provisioning buffers. This helped preserve the stability of the banking system. Post-pandemic, the SBP is now appropriately focusing on rebuilding buffers and expanding its macroprudential policy toolkit. For example, initiatives are underway to enhance data collection to support the implementation of additional household and corporate sector borrower-based tools.

**The SBP should further expand its macroprudential toolkit and develop a strategy to guide the appropriate timing and modality of implementing and activating each policy tool.** The SBP should introduce additional borrower-based tools to address risks in the household sector as well as tools to contain excessive leverage and systemic risk in the corporate sector. It should also proceed with its planned introduction of the CCB and D-SIB surcharge and consideration of the CCyB and NSFR. Developing a strategy with clear objectives and key indicators will help guide the timing of the activation of macroprudential policy tools based on an assessment of macrofinancial developments, as well as communications to the public. The SBP should also continue building experience in evaluating policy effects, including intended effects of any measures taken and any unintended side effects, to assess the need for policy adjustments.

**The macroprudential framework could be further improved in several areas.** The CCF is developing as a forum for system-wide financial stability analysis and the formulation of coordinated macroprudential policies. To improve its effectiveness, significant efforts and resources

are needed to bring the macroprudential analysis and policy capabilities of the CCF member agencies to broadly similar levels. These capabilities, including the ability to collect the necessary data, currently differ widely among the member agencies. To facilitate policy actions, it is worthwhile considering a role for the Ministry of Economics and Finance (MEF) in the CCF. The SBP could further make more use of its FSR to explain policy decisions and provide the underlying analysis. It could also use inputs from other CCF members to broaden the scope of the FSR to include the entire financial system. Table 1 lists several other recommendations.

<b>Table 1. Panama: Key Recommendations</b>			
<b>Recommendations</b>		<b>Authority</b>	<b>Timing<sup>1/</sup></b>
<b>Institutional Framework for Macroprudential Policy</b>			
1.	<i>Regular and timely discussions on macroprudential issues.</i> Ensure the SBP and CCF Macroprudential Policy Committees meet on a quarterly basis and the SBP Board holds regular (quarterly or semiannual) meetings dedicated to macroprudential policy (¶11).	SBP and CCF	I
2.	<i>Macroprudential strategy.</i> Continue improving the draft macroprudential policy strategy document and publish it within the planned timeframe (end of 2023) (¶12).	SBP	ST
3.	<i>Public communications.</i> Make greater use of the FSR to explain policy decisions and provide the underlying analysis, complemented by inputs from CCF member entities on their respective sectors, broadening the scope of the FSR to include the entire financial sector (¶13).	SBP and CCF	ST
4.	<i>Interagency cooperation.</i> Allocate a nonvoting member role for the MEF in the CCF, continue the data advancement exercise, and consider adding to the Internal Rules and Regulations (Resolución #1) of the CCF, or its underlying law as needed, a clause to issue recommendations to its members with a “comply or explain” mechanism (¶14).	CCF	ST



**Table 1. Panama: Key Recommendations (concluded)**

<b>Systemic Risk Monitoring</b>			
5.	<i>Bank stress testing framework.</i> Further develop the bank stress test model suite, e.g., with regard to credit risk, market risk, and liquidity risks (¶129).	SBP	ST
6.	<i>Data gaps.</i> Complete the ongoing initiatives to enhance data collection, in particular the data sourcing of individual borrowers' income, and corporate loans by economic groups and debt service information to close the remaining data gaps in borrower-level data (¶129).	SBP	I
7.	<i>Communications.</i> Expand the FSR outreach by publishing the FSR in English (in addition to Spanish), given Panama's importance as a regional financial hub, and make the data underpinning its analysis available to the public through the SBP webpage (¶129).	SBP	ST
8.	<i>Real estate price index.</i> Address the shortfalls in the IPVN, complete the project to develop a price index of existing houses, and establish an index of commercial real estate prices (¶131).	SBP	ST, MT
9.	<i>Capacity for systemic risk oversight.</i> Continue to strengthen the capacity of the Financial Stability Directorate to fulfill its macroprudential functions (¶132).	SBP	MT
<b>Implementation of Macroprudential Policy Tools</b>			
10.	Establish additional borrower-based macroprudential policy tools, such as caps on mortgage LTVs or on DTI or DSTI ratios to limit the buildup of vulnerabilities in the household segment (¶149).	SBP	ST
11.	Expand the macroprudential policy toolkit with tools to contain excessive leverage and systemic risks in the corporate sector (¶152).	SBP	ST
12.	Develop a strategy—with clear objectives and main indicators—to guide the appropriate timing and modality of implementing and activating each additional macroprudential policy tool (¶161).	SBP	ST
13.	Continue building experience in evaluating policy effects, including intended effects of any measures taken and any unintended side effects, to assess needs for policy adjustments (¶162).	SBP	MT
14.	Publish data on the newly implemented LCR (¶163).	SBP	I
15.	Proceed with the planned implementation of the CCB and D-SIB surcharge and consideration of the CCyB and NSFR (¶143, 58).	SBP	ST
<sup>1/</sup> Timing: I—Immediate (within 1 year); ST—short term (within 1–2 years); MT—medium term (within 3–5 years).			

# INSTITUTIONAL FRAMEWORK FOR MACROPRUDENTIAL POLICY

**1. A strong institutional framework is essential to ensure that macroprudential policy can work effectively.** The IMF Guidance on Macroprudential Policy<sup>2</sup> outlines three key principles: (1) *willingness to act* in the face of opposition, supported by a clear mandate, an organized policy process, and effective communication; (2) *ability to act*, with adequate powers to collect information and take policy actions; and (3) *effective cooperation* across all relevant agencies for financial stability. This note reviews the Panamanian framework against each of these aspects and sets out a series of recommendations. The work is based on a follow-up on the findings and recommendations from two recent IMF technical assistance (TA) missions on macroprudential policy.<sup>3</sup>

## A. Willingness to Act

**2. Since there is no central bank in Panama, the Superintendency of Banks of Panama (SBP) is the key institution for monitoring and safeguarding financial stability.** As specified in Article 5 of the Banking Law ([No. 9-1998](#), modified by No. 2-2008), the SBP has the objective of safeguarding the soundness and efficiency of the banking system. The SBP has no explicit mandate to promote the stability of the entire financial system, beyond the banking system. However, the SBP has the leading role in promoting financial stability, given that the banking system accounts for over 90 percent of the financial sector's total assets (Table 2). The SBP also has a leading role in the Financial Coordination Council (CCF) (see Section C below).

**3. The SBP has an effective decision making process, recently updated to include a consultative role for a dedicated macroprudential policy committee (Comité de Políticas Macroprudenciales, CPMP).** The Financial Stability Directorate (FSD)<sup>4</sup> of the SBP is the dedicated organizational unit for macroprudential policy and analysis. It collaborates closely with the Risk Management Directorate (RMD) and the Supervision Directorate, which are responsible for analysis of microprudential issues.

<sup>2</sup> IMF (2014a). [Staff Guidance Note on Macroprudential Policy \(imf.org\)](#).

<sup>3</sup> The first virtual TA mission took place during August 3–9, 2021, to evaluate the macroprudential policy framework and develop a roadmap to strengthen it. The second virtual TA mission took place during December 7–16, 2021, to assist in developing a strategy to introduce borrower-based measures, when appropriate, to better address systemic risks in the household and housing sectors.

<sup>4</sup> The Systemic Risk Management and International Standards Division of the FSD is the specific unit tasked with macroprudential policy and analysis.

**Table 2. Panama: Structure of Financial System, December 2022**

	<b>Number of Institutions</b>	<b>Total Assets (USD billion)</b>	<b>Share of Total assets (%)</b>	<b>Share of GDP (%)</b>
<b>Banks<sup>1/</sup></b>	<b>56</b>	<b>135.7</b>	<b>90.1</b>	<b>192</b>
General license banks	42	119.4	79.3	169
<i>o/w State-owned</i>	2	21.0	14.0	30
<i>o/w Domestically owned</i>	13	39.0	25.8	55
<i>o/w Foreign-owned</i>	27	59.4	39.5	84
International license banks	14	16.3	10.8	23
<b>Nonbank Financial Intermediaries</b>	<b>1,351</b>	<b>14.8</b>	<b>9.9</b>	<b>20</b>
Insurance and reinsurance <sup>2/</sup>	54	3.6	2.4	5
Securities companies and pension funds	179	5.0	3.3	7
Cooperatives	536	2.4	1.6	3
Other financial entities	582	3.8	2.5	5
<b>Total</b>	<b>1,407</b>	<b>150.5</b>	<b>100.0</b>	<b>212</b>
Source: SBP.				
<sup>1/</sup> Data to June 2022.				
<sup>2/</sup> Data to March 2022.				

**Table 3. Panama: Macroprudential Policy Committee (CPMP)**

**Objectives:** Evaluate, analyze, and recommend macroprudential policies to minimize the systemic risks identified, and promote the stability of the banking system. Intermediate objectives of macroprudential policy are to (1) mitigate and avoid excessive credit growth and leverage; (2) mitigate and avoid excessive maturity mismatches or market illiquidity; (3) limit direct and indirect risk concentration; (4) limit systemic effects of inadequate incentives to reduce moral hazard; and (5) analyze microprudential issues that represent a macroprudential threat.

**Chair:** Superintendent

**Voting members:** Financial Stability, Risk Management, and Supervision Directorates

**Nonvoting member:** Directorate of Regulation

**Frequency of meetings:** At least quarterly

**Agenda and minutes:** The Financial Stability Directorate is responsible for preparing the meeting agenda and minutes.

Sources: SBP and IMF staff.

Note: This table shows key elements of the CPMP based on Resolution SBP-ADM-0017-2021 (dated September 16, 2021).

**4. The FSD provides primary inputs to the newly established CPMP.** The CPMP was created to institutionalize regular discussions on macroprudential issues within the SBP and is expected to fulfill a key consultative role in the SBP's updated decision making process. The CPMP's objectives, members, and modality are clearly specified in a formal document (Resolution SBP-ADM-0017-2021), in line with the IMF TA recommendations (Table 1). The CPMP is tasked with meeting at least

quarterly to discuss macroprudential issues and make policy recommendations.<sup>5</sup> A separate Regulation Committee is responsible for reviewing, analyzing, and unifying the interpretation of regulations. These two specialized committees replaced the earlier Technical Committee (TC). It is envisaged that the two committees will collaborate on proposing macroprudential policy regulations. The CPMP is a consultative body, with the Superintendent deciding on policy proposals to be raised to the Board of Directors of the SBP, which makes the ultimate policy decisions (Figure 1).<sup>6</sup> Recently, the SBP Board has discussed macroprudential policy issues as needed during its regular meetings rather than during specifically dedicated semi-annual meetings on this topic.

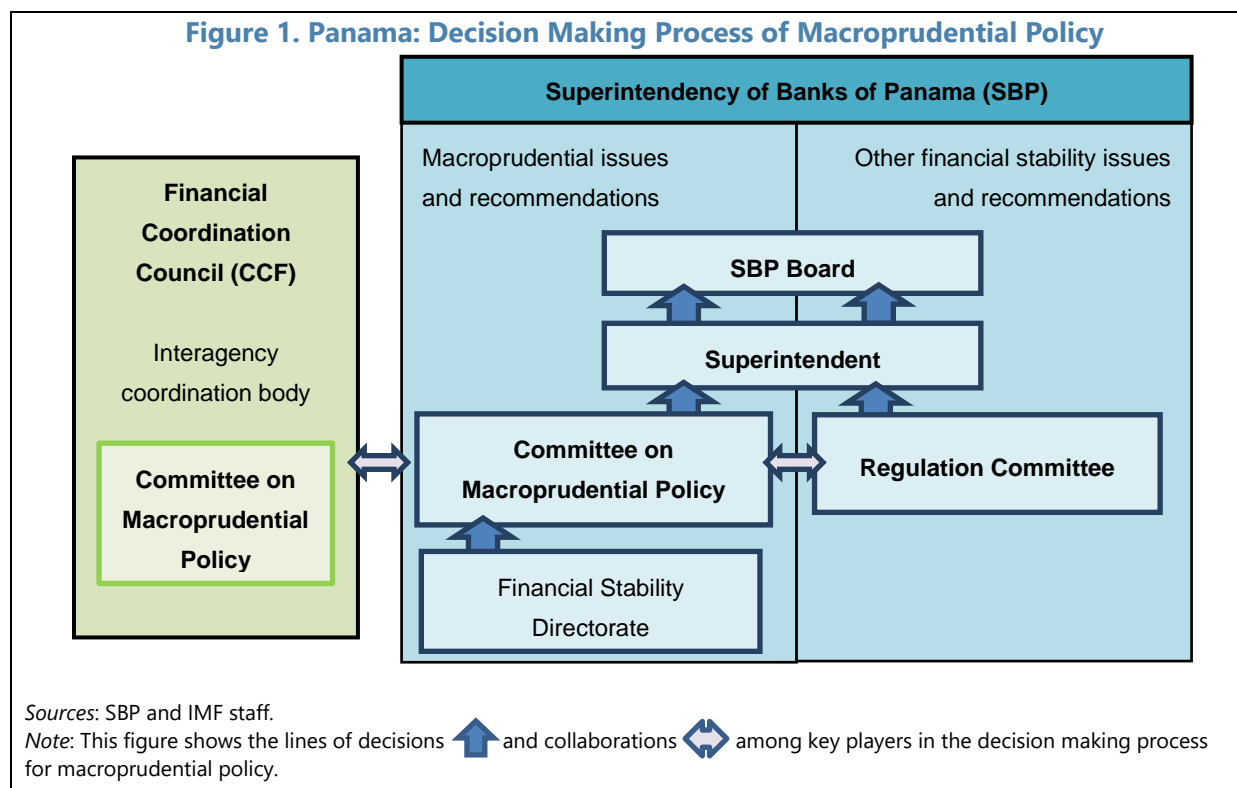
**5. The SBP has made important progress on its public communication on macroprudential policy and has produced an internal draft macroprudential policy strategy document.** In the latest FSR from the second half of 2022, the SBP shared with the public information about its macroprudential objectives and provided a mapping of macroprudential objectives, tools, and vulnerabilities.<sup>7</sup> Further, the SBP produced a draft macroprudential policy strategy document to strengthen its policy framework, promptly implementing one of the high-priority IMF TA recommendations. However, the framework has not been fully deployed yet, as the draft is currently available only internally. This raises concerns, but the SBP has set the goal of publishing it externally by the end of 2023. The current draft usefully covers key elements of the macroprudential policy framework in Panama (e.g., objectives, tools, indicators), largely reflecting the IMF's guidance and international experiences. Table 3 outlines the CPMP's various objectives. There is scope to further develop the intermediate objectives, including increasing resilience and controlling for systemic interlinkages. The strategy document was endorsed by the CPMP on July 6, 2022, and is intended to evolve over time.

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<sup>5</sup> The CPMP held its first meeting on November 11, 2021 and discussed the importance and the roles of the CPMP, as well as the progress and plans for implementing the recommendations from the first TA mission. Subsequent meetings were held on April 13, 2022, June 14, 2022, July 6, 2022, July 19, 2022, September 13, 2022, and then on March 23, 2023 and May 12, 2023. The meeting minutes were produced by the FSD and shared with the FSAP mission.

<sup>6</sup> The Board consists of seven independent members who are professionals and businesspersons, five of which are elected and the other two are appointed by the Board of Directors of the Superintendence of Securities Markets and the Superintendency of Insurance and Reinsurance, respectively. Information on the current Board of Directors is available at <https://www.superbancos.gob.pa/en/sobre-sbp/junta-directiva>.

<sup>7</sup> The SBP publishes regulations at <https://www.superbancos.gob.pa/en/node/188>; and the semi-annual Financial Stability Report and other analyses at <https://www.superbancos.gob.pa/en/estadisticas-financieras/estudios>.

**Figure 1. Panama: Decision Making Process of Macroprudential Policy**

## B. Ability to Act

**6. The SBP has a legal basis to conduct macroprudential policy and broad “hard powers” to direct macroprudential policy tools and collect information from the banking sector.** Under Article 11 of the Banking Law, the SBP is empowered to establish necessary regulations to achieve its objectives, specified in Article 5. For macroprudential policy, this means that the SBP has “hard powers,” giving it direct control to introduce, repeal, or change the calibration of policy instruments, if they are deemed necessary to safeguard the soundness and efficiency of the banking system. Chapter IX of the Banking Law grants the SBP the right to request information from banks and banking groups.

**Table 4. Panama: Members of the CCF**

### Voting Members

- Superintendency of Banks of Panama (SBP)
- Superintendency of the Securities Market (SMV)
- Superintendency of Insurance and Reinsurance (SSRP)
- Panamanian Autonomous Cooperative Institute (IPACOO)
- System of Savings and Capitalization of Pensions of Civil Servants (SIACAP)
- National Directorate of Financial Companies of the Ministry of Commerce and Industry

### Nonvoting Members

- Financial Analysis Unit (UAF)
- Technical Accounting Board of the Ministry of Commerce and Industry

*Source:* Title I of Law No. 67 of September 1, 2011.

## C. Cooperation

**7. The Financial Coordination Council (CCF) was established in Law 67-2011 as a forum for domestic interagency cooperation.** The CCF consists of six domestic agencies (Table 4) and has as its main objective to strengthen information exchange and coordination on regulatory policies across supervisory agencies in the financial sector. The CCF Board is chaired by the Superintendent of Banks and meets quarterly.<sup>8</sup> Under Article 9 of Title I of Law No. 67, the CCF has the power to make recommendations to its members (“soft powers”). So far, the CCF’s role has been mostly for information sharing.<sup>9</sup>

**8. The CCF has made notable progress in strengthening interagency collaboration for macroprudential policy.** In November 2021, the CCF took a unanimous decision to create a technical committee to jointly assess systemic risks that are relevant for banks and nonbank financial institutions, the CCF Committee on Macroprudential Policy, which includes members from all CCF institutions. In line with IMF TA recommendations, this step will help in complementing the role of the SBP as the macroprudential authority to eventually comprehensively cover the entire financial system. While the banking sector is currently dominant in Panama, accounting for over 90 percent of the total financial sector assets (Table 1), such a landscape would likely change in the future as the financial sector develops. Effective interagency cooperation can counter macroprudential policy leakages, e.g., scenarios in which lending activity could migrate into the nonbank sector if macroprudential measures are only applied to the banking sector.

**9. The SBP has also been involved in cross-border cooperation for financial stability.** The SBP is part of the Central American Council of Superintendents of Banks, Insurance, and other Financial Entities (CCSBSO), which aims to facilitate cooperation and to promote financial stability in the region.<sup>10</sup> The SBP also participates in the Regional Financial Stability Group (Grupo de Estabilidad Financiera Regional, GEFR), consisting of the central banks and the superintendencies in Central America, and collaborates on the GEFR’s Regional Financial Stability Report.

## D. Assessment and Recommendations

**10. The SBP and CCF have made significant progress in implementing several of the high-priority IMF TA recommendations.** These include establishing the CPMP, updating the SBP’s decision making process on macroprudential policy issues, drafting the strategy document, improved public communications via the FSR, and making advances toward filling data gaps. Additionally, the CCF achieved notable progress in establishing its own Committee on Macroprudential Policy, developing member entities’ capacity on macroprudential policy, and

<sup>8</sup> Additional ad hoc meetings can be also held at the request of any CCF members (Article 3 of the FCC Resolución #1). The SBP serves as the technical secretariat of the CCF (Article 16 of the FCC Resolución #1).

<sup>9</sup> In addition to the CCF, interagency information sharing has been facilitated via mutual representation of some directors at the Boards of the Superintendencies of Banks, Insurance, and Securities, respectively.

<sup>10</sup> More information about the CCSBSO is available here: <https://ccsbsso.org>.

gathering data. The mission commended both the SBP and CCF for their demonstrated commitment to implementing the proposed recommendations.

**11. It is important for both the SBP and CCF to continue working toward their macroprudential objectives through the processes already established.** Regular and timely discussions on macroprudential issues should be held consistently on a quarterly basis by the SBP and CCF macroprudential policy committees. Likewise, the SBP Board should hold regular meetings (quarterly and semiannually) dedicated to macroprudential policy and other topics as needed. Consistent interaction and exchange during these meetings among the various stakeholders will ensure continued progress on the numerous planned initiatives.

**12. The SBP is encouraged to continue improving the draft macroprudential policy strategy document and publish it within the planned timeframe, by end-2023.** While the current draft already includes key elements of the macroprudential policy framework (e.g., objectives, tools, indicators), the links between objectives, risk assessments, and policy tools could be further clarified and tightened. This will help the SBP tailor the policy tools to emerging systemic risks expeditiously. In particular, the strategy document should specify the set of core and additional indicators for each type of systemic vulnerability. Specifying such indicators for each type of systemic risk would be useful in various aspects of the policy cycle—i.e., systemic risk assessment, selection and design of policy tools, policy implementation, policy evaluation—as well as communicating policy decisions. The decision making process in the strategy document could be further explained, including the role of the CPMP and the envisaged collaboration with the CCF. The strategy document should be shared with the public. Publishing the strategy document helps to counter the “inaction” biases that can arise in the face of opposition, by promoting public understanding of the need for macroprudential measures.

**13. Although the SBP has already made significant progress on its public communication of macroprudential policy through the FSR, these efforts could be further strengthened.** The SBP is encouraged to make more use of the FSR to explain policy decisions and to provide the underlying analysis.<sup>11</sup> The systemic risk analysis should be linked to the policy objectives specified in the strategy document, so that any need for policy responses can be assessed. Ex post evaluation of the macroprudential measures taken should be considered. Periodic updates on risks and policies, consistent with the macroprudential strategy, help demonstrate the SBP’s commitment to take policy action as needed, as well as build policy credibility. The SBP’s analysis in the FSR could also be complemented by inputs from other members of the CCF on their respective sectors, thus broadening the scope of the FSR beyond the banking system to include the entire financial sector.

**14. Efforts to foster effective domestic interagency cooperation should continue, including by allocating a nonvoting role for the MEF in the CCF.** Although the CCF has made

<sup>11</sup> For improvement of transparency arrangements related to FSR publication and macroprudential strategy development, the IMF’s [Central Bank Transparency Code \(CBT\)](https://www.imf.org/external/datamapper/CBT/) principles and its detailed practices on transparency regarding macroprudential policy and financial integrity could be consulted as an international benchmark. See: <https://www.imf.org/external/datamapper/CBT/>.

notable progress on strengthening interagency collaboration for macroprudential policy, notably through the newly established Committee on Macroprudential Policy, continued and consistent efforts are needed to advance the work, including on the ongoing data improvement project. Establishing a nonvoting member role for the MEF on the CCF can be useful when changes in legislation are needed to expand the macroprudential toolkit or the regulatory perimeter to NBFIs or when cooperation of the fiscal authority is needed to mitigate systemic risk. At the same time, the independence and autonomy of the participating agencies should be safeguarded. While being mindful of different capacities across CCF member entities, especially given the different size and scope of each sector, the CCF could consider gradually strengthening its roles beyond information sharing. For example, consideration could be given to reviewing and amending the Internal Rules and Regulations (Resolución #1) of the CCF, or its underlying law as needed, so that it can issue recommendations to its members with a “comply or explain” clause, moving the CCF from “soft power” to “semihard power.” This could help the SBP fulfill macroprudential responsibilities when policy actions need to be taken by other supervisory agencies, e.g., in the case of regulatory leakages. Currently, these functions are exercised through the separate regulatory powers of some of the CCF member entities.

## SYSTEMIC RISK MONITORING

**15. Panama’s financial system is largely dominated by banks.** The banking and nonbank financial firm sectors account for 90 percent and 10 percent of total financial system assets, respectively. Among NBFIs, pension funds invest predominately in assets abroad, while cooperatives only account for 1.6 percent of total assets in the financial system. Given the dominance of banks in the financial system, Panama’s macroprudential and microprudential policies have thus far been focused on banking institutions.<sup>12</sup>

**16. A well-functioning macroprudential framework requires comprehensive monitoring of systemic risks based on strong analytical capacity and high-quality data.** Macroprudential policy decisions should not mechanically be based on rules. Instead, they are to be derived from “guided discretion,” which combines surveillance of risks based on indicators and analytical tools, but also expert judgment. Such judgment requires access to granular data alongside strong analytical capacity (which includes indicators and models) to assess systemic risk and effectively map the assessment of risks into macroprudential policies. Clear communication is key to promoting public understanding of vulnerabilities and policy actions, counter inaction bias, and enhance the legitimacy and accountability of macroprudential policy.

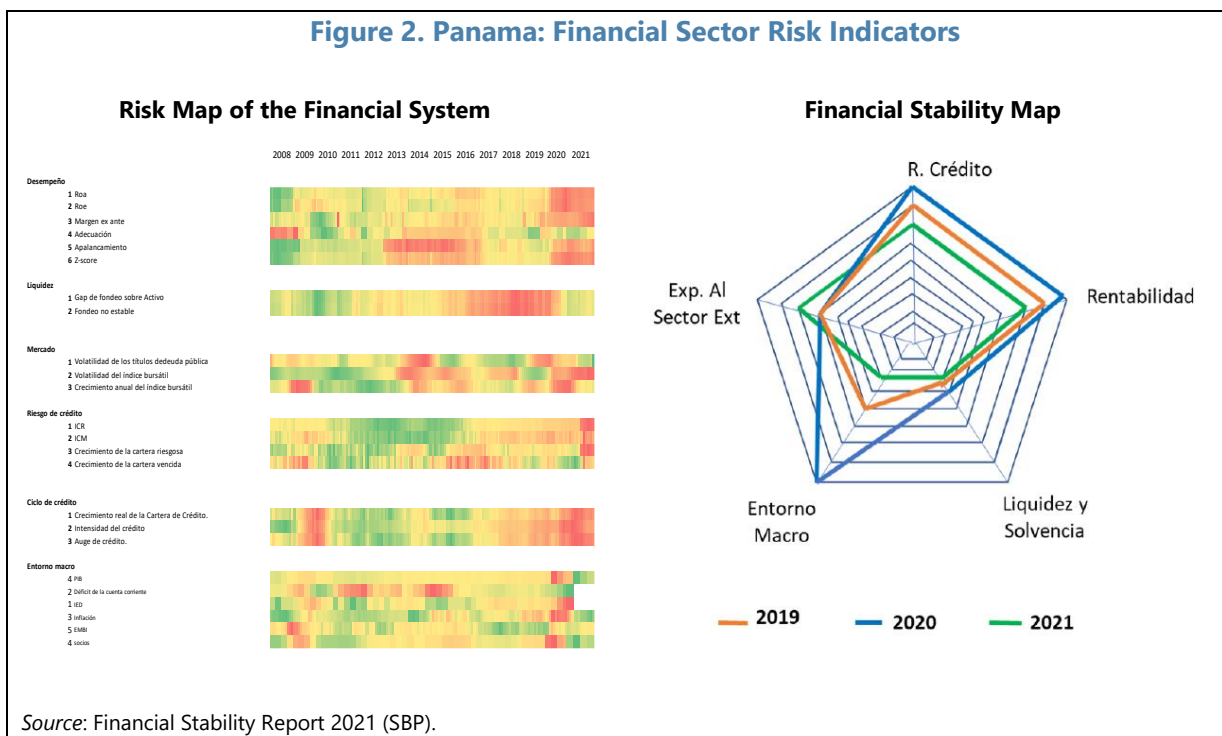
<sup>12</sup> Leakages of macroprudential policies are limited as NBFIs are small relative to the banking system.



## A. Systemic Risk Assessment Framework

**17. Macroprudential surveillance at the SBP is primarily the responsibility of the Financial Stability Directorate (FSD).** The scope of systemic risk monitoring and assessment covers the overall financial soundness of banks and the financial sector in Panama. The FSD—in close collaboration with the Risk Management Directorate (RMD) and the Supervision Directorate—conducts systemic risk assessments using a set of analytical tools and data that includes a heat map of risks, a cobweb diagram, and solvency stress tests.<sup>13</sup> Specifically:

- **A set of comprehensive risk indicators.** The SBP’s heat map and cobweb diagram incorporate credit indicators (e.g., growth of credit, share of risky credit), banking sector indicators (e.g., solvency and liquidity indicators), and market indicators (e.g., volatility of sovereign bond yields, the emerging markets bond index). The definitions of these indicators are consistent with those used in the GEFR’s Regional Financial Stability Report as well as a number of the tools recommended in the [IMF 2014 Guidance Note](#), which include financial soundness indicators, credit indicators (loan growth, credit-to-GDP, and credit-to-GDP gaps), macroeconomic data (current account deficit), market-based indicators, and house price indices.



<sup>13</sup> FSD is upgrading the solvency stress test model with the assistance of ongoing IMF TA to include market risk stress tests.

- **Regular stress tests on the banking system.** The FSD conducts internal stress tests to ascertain the adequacy of capital, guide the recalibration of loan-loss provisioning and capital requirements,<sup>14</sup> and as inputs for supervision.<sup>15</sup> Following the COVID-19 pandemic, the SBP has stepped up its prudential supervision of banks; this includes reviews of modified<sup>16</sup> and normal loans, the financial health of borrowers, and the effectiveness of loan restructuring to ensure that loans that were modified comply with the parameters and guidelines of Rule 2, 2021. Inspecting banks' expected loss models is also a critical part of supervision. Based on a stress test conducted in August 2022, a bank was required to inject capital amounting to US\$ 100 million to ensure sufficient capital buffers.<sup>17</sup>
- **Focused research on specific vulnerabilities.** The FSD conducts ad hoc tailored analyses (e.g., of household indebtedness and the real estate sector) to provide insights on systemic risks. These findings are discussed at the CPMP (or, before its establishment, at the TC) and CCF, and some of them are published on the SBP's website.<sup>18</sup> One example is the early warning indicators and the methodology used to identify systemic banks presented and discussed during the CCF meeting on July 6, 2022.

**18. The FSD exercises expert judgment when interpreting risk indicators.** As an example, in the analysis of credit growth, its staff considers the credit cycle (*auge de crédito*) beyond what a credit-to-GDP gap metric can indicate (*brecha crédito PIB*), to assess systemic risks and decide whether to activate macroprudential measures (Figure 3). This helps mitigate false signals that credit-to-GDP ratios or gap metrics alone may issue (e.g., this indicator showed a credit boom occurring in 2020 during the pandemic, as GDP declined significantly, but the credit cycle showed a contractionary position). For the analysis of the credit-to-GDP gap, it is useful to explore various alternative filtering techniques—such as those developed in [Yogo \(2008\)](#) and [Hamilton \(2018\)](#)—to accompany the standard HP filter methods.

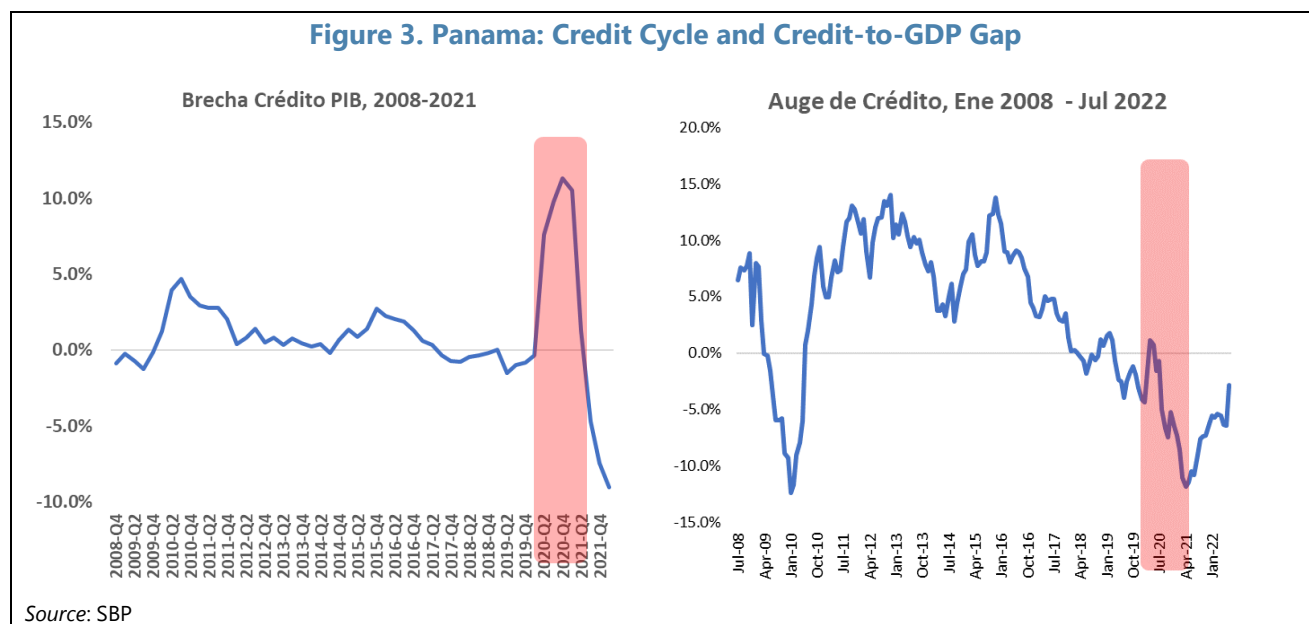
<sup>14</sup> During the pandemic, an ad hoc regulatory requirement (Rule 9, 2020) required banks to create a generic provision equivalent to 3 percent of the gross modified loan portfolio.

<sup>15</sup> IMF Technical Assistance is underway to assist the SBP in developing stress test modules for market and liquidity risks, as well as enhancing the stress test for credit risk.

<sup>16</sup> See Box 2 for background information on loans that were modified during the pandemic.

<sup>17</sup> The stress test, conducted by the SBP, focuses on the solvency of individual Panamanian banks, based on adverse macro-financial scenarios for the economy and hence the operating environment for banks.

<sup>18</sup> See <https://www.superbancos.gob.pa/es/fin-y-est/estudios>.



**19. The SBP continues to strengthen its technical capacity for systemic risk monitoring and assessment.** Its analyses are presented in the [semiannual FSR](#), the [Monthly Banking Activity Report](#), and [research reports](#). The SBP is improving its analytical capacity through several projects, including:

- **Household income.** The FSD is in consultation with banks regarding the possibility of establishing a requirement to report the income level of household borrowers. This requirement is expected to be adopted by mid-2023 and will enable better measuring household indebtedness and analysis of the behavior of borrowers according to their mortgage LTV ratios.
- **Nature of deposits.** The FSD is adapting its system to obtain more granular information on deposits to enable analysis of the amount of deposits that the same client has within a bank as well as the economic activity from which the funds originate.
- **Borrowers by economic groups.** The Supervision Division is undertaking a project to group borrowers according to economic groups (local and foreign) to enable the surveillance of exposure to the various groups of borrowers and provisioning on a monthly basis.

**20. The SBP's assessment of systemic risks and vulnerabilities is communicated to the public.** The main communication device is the annual FSR, launched with a public presentation by the Superintendent with participants from banks, international financial institutions, analysts, and rating agencies. The FSR is shared on the [SBP's webpage](#), and the video recording of the presentation is available on [YouTube](#).

**21. The FSR contains a well-articulated view on systemic risks and vulnerabilities.**<sup>19</sup> The FSR's executive summary describes the main macroeconomic and financial sector developments, vulnerabilities, and analysis (including stress testing) of the banking sector. The FSR could be further enhanced by:

- **Inserting a discussion of policies, including macroprudential measures, to address risks identified in the analyses.** At present, these policy decisions are only discussed internally within the SBP.
- **Discussion of intersectoral linkages between banks and nonbank financial institutions (NBFIs), the government, households, nonfinancial corporations, and the external sector.** An analysis of the performance and risks in the nonbank sectors (NBFIs, households, and nonfinancial corporations) will further strengthen the identification of spillover risks and guide policy responses to mitigate these risks.
- **Ex post evaluation of macroprudential measures.** In line with the recommendation of the TA on the Macroprudential Policy Framework (August 2021), periodic updates on risks and policies, consistent with the macroprudential strategy, will help demonstrate the SBP's commitment to take policy action as needed, as well as build policy credibility.<sup>20</sup>

## B. Data Availability and Gaps

**22. The SBP has access to most of the data needed for macroprudential surveillance and has strengthened data collection.** As the responsible regulator, the SBP collects financial soundness indicators and supervisory data from banks, and periodically modifies reporting forms or launches new surveys to improve its risk coverage.

**23. Household sector.** The SBP uses a matrix of risk indicators with basic and additional indicators.

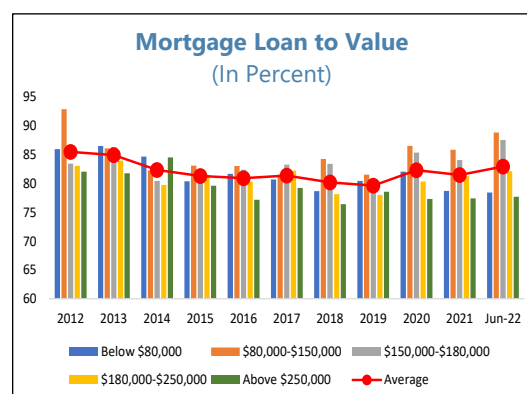
- **Basic indicators** include loans to households (growth rate, average number of loans, and share of household loans to total loans) and unsecured loans comprising personal loans and credit cards (maturity, interest rates, delinquency rates, and credit risk profile).

<sup>19</sup> [IMF \(2021\)](#) and [Comelli and Ogawa \(2021\)](#) define a “well-articulated view about systemic risk” by having a statement or view, supported by data or tools, on any of the following: (i) an explicit mention of systemic risk, including its level (for example, “high” or “low”), direction (for instance, “rising” or “falling”), and sources; (ii) the overall vulnerabilities in the financial system and its resilience to aggregate shocks; or (iii) how shocks (from the financial system, the rest of the economy, or abroad) could cause an impairment of all or parts of the financial system and their consequences for the real economy given underlying vulnerabilities.

<sup>20</sup> Paragraph 52 of [IMF 2014a](#) provides further details.

- **Additional indicators** include the LTV ratio of new mortgage loans, interest burden for households, and delinquency rates. The SBP has sufficient data to analyze the performance of mortgages for first homes and mortgages with preferential interest rates for properties not exceeding US\$ 180,000.<sup>21</sup> Since 2011Q2, the data on mortgages for second homes are also available. At present, buy-to-let mortgages are not differentiated in the data on mortgages for first and second homes.

**Figure 4. Panama: Mortgage Loan to Value**



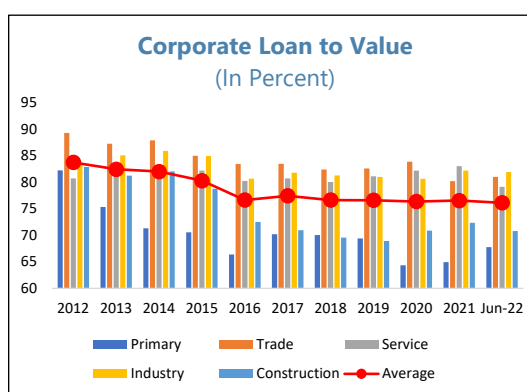
Source: SBP.

- **The borrower-level panel dataset** covers all bank loans at a monthly frequency. It tracks repayments over time and contains borrowers' demographics as well as detailed information on their loans, such as amount outstanding, interest, amortization, and repayment performance. This dataset provides useful statistics for surveillance and analysis. Recently, the FSD conducted an analysis on the distribution of DSTI ratios using a sample of civil service employees from this dataset.<sup>22</sup> The SBP is also preparing a data collection exercise, which covers borrowers' income to further advance the analysis of household indebtedness.

**24. Nonfinancial corporate sector.** The SBP uses indicators that are derived from banks' corporate loan portfolios, based on supervisory data from financial institutions. Specifically:

- **The main indicators** used are growth in corporate lending by main economic activities (total amounts and number of loans), corporate LTV ratios, interest charges by activity (interest receivable/number of loans), NPLs and past-due loans by economic activity, and loans by size of company and economic sector.

**Figure 5. Panama: Corporate Loan to Value**



Source: SBP.

<sup>21</sup> First time buyers of new homes (new construction) receive a government subsidy in the form of tax credit, which covers up to 4 percentage points off the market rate for qualifying homes up to a maximum value of US\$ 180,000 for a nonrenewable period of 10 years. As of August 2022, subsidized mortgages accounted for 46 percent of total mortgages.

<sup>22</sup> A working paper ([SBP, 2021](#)) provides further details.

- **The SBP also has information on all transactions in foreign currencies** (other than the US dollar) that enables the monitoring of foreign exchange exposure of corporate borrowers through credit facilities (foreign trade operations) given by banking institutions.<sup>23</sup>

**25. Property price index.** The SBP produces and uses a price index of new houses (*Indice de Precios de Vivienda Nueva, IPVN*), covering selected regions in the center of the country (Panama City, San Miguelito, beach areas, Panamá Oeste), based on data from a third-party provider (*Galería Inmobiliaria*) for systemic risk analysis. However, some deficiencies are noted (Box 1), and refinements to this index would ensure accurate reflection of the underlying residential real estate market, which is important in guiding macroprudential policy decisions. To complement this index, the SBP is resuming a project to produce a price index of existing houses, which was delayed by the pandemic. At present, a commercial real estate price index is not available due to cost issues.

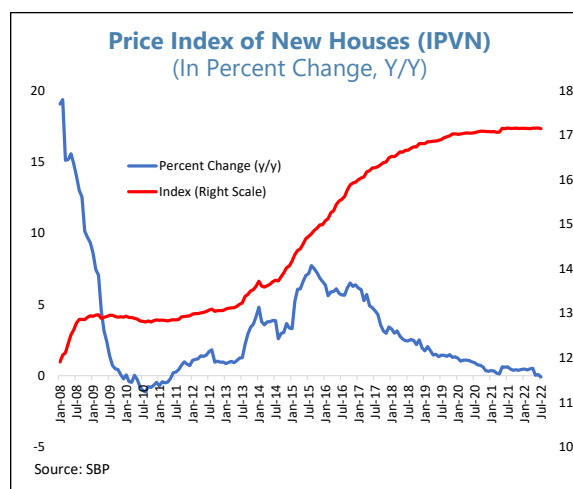
### Box 1. Panama: Price Index of New Houses (IPVN)

#### Background

The IPVN is derived from the database of *Galería Inmobiliaria*, which contains detailed information on homes that are available for sale, obtained through monthly surveys from all sales rooms. The index (December 2007 = 100) is constructed from the prices of all new properties that are available for sale in a given period. It includes several geographical areas within Panama City (with 19 subareas<sup>1/</sup>), San Miguelito area (with eight areas<sup>2/</sup>), and the beaches and provinces of Panamá Oeste (Arraiján and Chorrera). Each real estate project is monitored from the moment it appears in the sales room until the last unit is sold.

#### Some deficiencies<sup>3/</sup>

The IPVN only accounts for prices of new homes that are for sale. **It does not include existing homes.** Moreover, it does not differentiate between segments of the residential real estate market (low-, medium-, and high-end homes), as this could lead to distortions especially when inventory is skewed at certain times to a particular segment. For example, feedback from major banks suggests that prices in the middle- and high-end segments of the residential real estate market increased by about 50 percent in 2016 due to high demand from Venezuelan purchasers (driven by migration following the social unrest and economic downturn in Venezuela). However, the IPVN only shows an increase of 6.5 percent during the peak in 2016. Also, private sector agents noted that since 2018, home prices in the high-end segment had declined by about 20 percent and developers were cutting prices to reduce the inventory overhang. The IPVN does not show any declines; on the contrary, it shows a continuing increase in new house prices, albeit at a slowing rate.



<sup>1/</sup> Includes Ancón, Bella Vista, Bethania, Chilibre, Curundú, Juan Díaz, La Exposición o Calidonia, Las Cumbres, Las Mañanitas, Pacora, Parque Lefevre, Pedregal, Pueblo Nuevo, Río Abajo, San Felipe, San Francisco, San Martín, Santa Ana and Tocumen

<sup>2/</sup> Includes Amelia Denis de Icaza, Arnulfo Arias, Belisario Porras, José Domingo Espinar, Mateo Iturralde, Omar Torrijos, Rufina Alfano and Victoriano Lorenzo

<sup>3/</sup> The IMF has produced a guidance note for the compilation of residential property price indices, available at <https://www.imf.org/en/Data/Statistics/RPPI-guide>.

<sup>23</sup> 80 percent of foreign loans are concentrated within North America and South America.

**26. Overall, the SBP has made continuous efforts to ensure the sufficiency of data for analyses, including micro-level data.** It established an internal database that contains granular data of all loans from all banks in Panama. This includes the LTV ratio at the origination and subsequent repayment performance for each loan, as well as total debt service payments for each borrower. The SBP plans to add a new field to the database for the income of the borrower at the time of loan origination (which banks already collect) so that debt-to-income (DTI) and debt-service-to-income (DSTI) ratios at loan origination can be computed for new and existing loans.

**27. To address the remaining data gaps in households and corporate sector, the SBP is pursuing several initiatives.** Specifically:

- To enhance the monitoring of household risks:

Table 5. Panama: Addressing Data Gaps—Households		
Objectives	Data Gaps	Initiatives
To enhance the dataset of household borrowers and enable deeper analysis of household indebtedness with information on loan-to-value (LTV), debt-to-income (DTI), and debt-service-to-income (DSTI).	<ul style="list-style-type: none"> <li>• Information on individual borrowers' income.</li> <li>• LTV and DSTI ratios at the time of loan origination.</li> <li>• Share of risky loans (with a breakdown of these indicators by group of borrowers and type of loan).</li> </ul>	<ul style="list-style-type: none"> <li>• A new debt-to-income ratio information reporting requirement has been introduced for banks. The SBP organized meetings with the banks to explain the requirement.</li> <li>• The SBP has set a timeline to receive this information from banks by June 2023.</li> <li>• These new data will be linked to existing data on loans and other characteristics of borrowers obtained from banks.</li> </ul>
To enhance the dataset of mortgage loan origination to include types of borrowers.	<ul style="list-style-type: none"> <li>• First- and second-time buyers.</li> <li>• Buy-to-let.</li> </ul>	<ul style="list-style-type: none"> <li>• The following data are now available: (1) mortgages for first homes; (2) mortgages for second homes; and (3) mortgages with preferential interest rates for properties not exceeding US\$ 180,000.</li> <li>• Data on mortgages for the purchase of housing for rent are not available.</li> </ul>

- To enhance the monitoring of nonfinancial corporate sector risks:

<b>Table 6. Panama: Addressing Data Gaps—Nonfinancial Corporate Sector</b>		
<b>Objectives</b>	<b>Data Gaps</b>	<b>Initiatives</b>
To enhance the database on corporate leverage (through information from bank loan portfolios).	Corporate loans by economic groups/single industry code.	<ul style="list-style-type: none"> <li>• The SBP had prepared a preliminary data request template on corporate loans with industry codes to identify 100 economic groups. Banks are required to provide this information, based on Rule 6-2009 (<i>rules for risk concentration limits for economic groups and related parties</i>) and Rule 4-2013 (<i>management and administration of credit risk</i>).</li> <li>• A pilot test was scheduled for 2022Q4; and six banks were selected for the pilot.</li> </ul>
To establish a database with debt service information on corporate borrowers.	Debt service and operating income from each corporate loan.	<ul style="list-style-type: none"> <li>• A “financial analysis sheet” has been designed for banks to report the audited or interim financial results of their corporate borrowers.</li> </ul>

**28. An information and data sharing mechanism has been established across supervisory agencies.** Interagency information sharing is facilitated through the CCF and mutual representation of some directors at the Boards of the Superintendencies of Banks, Insurance, and Securities (see Section C of the chapter “Institutional Framework for Macroprudential Policy” above).

## C. Recommendations

**29. Systemic risk monitoring would benefit from further improvements, building on the SBP’s current initiatives.** They include:

- **Enhancing the bank stress testing framework.** With the support of IMF TA, develop various remaining components of a bank stress test model suite to cover all relevant drivers (refine the credit risk module, develop and integrate a market risk module and an interest income and expense module, cover other relevant P&L drivers). Develop a proper liquidity stress test simulation model. A liquidity stress module could be established based on assumptions on deposit outflows under different circumstances and the capacity to use liquid assets and inflows of cash in response to the outflows. Once further developed, use the integrated stress test model suite to help inform the timing and calibration of macroprudential policy tools (e.g., phase-in of CCB and surcharges for domestic systemically important banks (D-SIBs), time-varying calibration of CCyB, etc.).



- **Data gaps.** The ongoing initiatives to enhance data collection are commendable and should be completed to close the remaining data gaps and enhance the analysis of macrofinancial risks with granular borrower-level data. Completing the data sourcing of individual borrowers' income, and corporate loans by economic groups and debt service information, will fortify the monitoring of household and corporate leverage.<sup>24</sup>
- **Debt service information of corporate borrowers.** The debt service (sum of all loan service commitments) to operating income would be useful. This would require an aggregation of loan servicing outlays for each firm.
- **Communication.** The high-level press conferences by the Superintendent upon the FSR publication are appropriate. The SBP should also continue its outreach efforts to a broader audience when delivering the FSR, including a press release and an expert-level presentation with a Q&A session for market analysts and financial journalists. In addition, the SBP should consider publishing the FSR in English in addition to Spanish, especially given Panama's importance as a regional financial hub, and make the data underpinning its analysis available to the public through its webpage.<sup>25</sup>

**30. Tailored analyses that provide insights on systemic risks should be updated regularly to inform macroprudential decision making.** Analyses about household indebtedness and real estate risks provide insights and should become "products" that are regularly updated and reviewed by the decision making bodies, including the CPMP, the SBP Board, and the CCF. It is also advisable to start developing analytical frameworks, databases, and tools to assess potential systemic risks stemming from climate change, as such risks are likely to increase over time.<sup>26</sup>

**31. Addressing the deficiencies in the real estate price index will help ensure the quality of this indicator in guiding macroprudential policy decisions.** One way to achieve this would be to disaggregate the index into different segments, such as low-, medium- and high-end homes. Additionally, completing the project to develop a price index of existing houses and introducing an index of commercial real estate prices (when cost issues are resolved) would further bolster early warning signals and guide macroprudential policy decisions. Complementing the price index with information on quantity (e.g., inventory of properties available for sale) would provide an additional indicator to enable cross-checking the signals provided by existing indicators. Some major banks are already using inventory data to support their underwriting and lending decisions:

<sup>24</sup> For instance, [Brandão-Marques et.al. \(2019\)](#) and [Chow \(2015\)](#) provide useful references about the riskiness of credit allocation and corporate debt-at-risk.

<sup>25</sup> For example, the Bank of England publishes online the data underlying its FSR.

<sup>26</sup> A separate Technical Note produced under this FSAP by the World Bank deals with risks related to climate change. It found that "SBP, SSRP and the SMV as well as government entities are acknowledging the financial stability risk that climate change could pose but are still in the early stages of understanding those risks and integrating them into their organizational and governance frameworks. [...] Authorities should emphasize data collection, capacity building and appropriate resource mobilization and assign responsibilities across institutions for the system-wide assessment and monitoring of climate risks."

**Table 7. Panama: Inventories of Residential Real Estate, Pre- and Post-Pandemic**

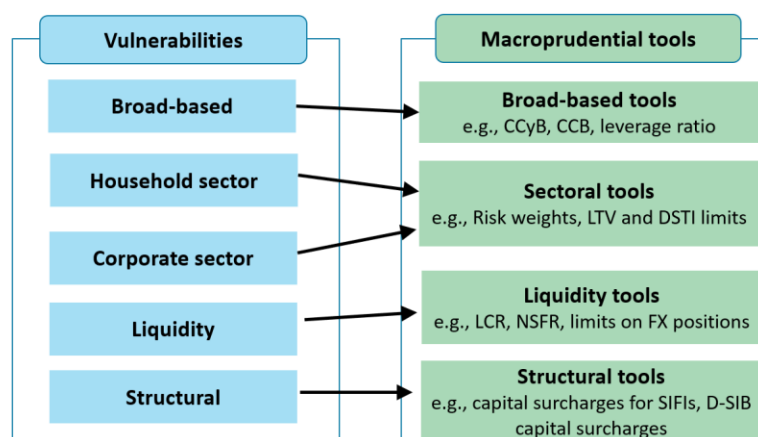
Property prices	June 2017 (pre-COVID)	June 2022 (post-COVID)
Above US\$800,000	1,466 properties for sale	620 properties for sale
US\$400,000 to US\$800,000	2,700 properties for sale	1,100 properties for sale

Source: A major Panamanian bank.

**32. The capacity for systemic risk oversight needs to be further strengthened.** The Financial Stability Directorate is responsible for systemic risk oversight and acts as the secretariat for the CPMP. This Directorate is relatively small, given the large scope of its responsibilities, which include, among others, the drafting of the monthly Banking Report, Semiannual Financial Stability Report, ad hoc research on financial stability issues, and conducting stress tests for banks. It would benefit from further capacity building efforts, including development of the staff's knowledge and expertise on macroprudential matters and, as needed, an increase in resources (including staffing).

## IMPLEMENTATION OF MACROPRUDENTIAL TOOLS

**33. Macroprudential policy relies on good microprudential supervision.** The SBP uses a combination of macroprudential and microprudential policies to safeguard the soundness and efficiency of the banking system, in line with its mandate under the Banking Law (Law 52-2008). Macroprudential supervision aims to establish rules to prevent and mitigate systemic risks<sup>27</sup> and increase the resilience of the banking system.<sup>28</sup> Microprudential supervision focuses on the soundness of each banking institution using a risk-based supervision approach, with both onsite and offsite examinations.

**Figure 6. Panama: Mapping between Vulnerabilities and Tools**

References: [IMF \(2014a\)](#) and [IMF \(2014b\)](#).

**34. Macroprudential policy tools relate to “the use of primarily prudential tools to limit systemic risk.”**<sup>29</sup> Different policy tools are needed to address different categories of systemic risks.

<sup>27</sup> Systemic risk is defined here as the risk of disruptions in the provision of key financial services that can have serious consequences for the real economy. At the most fundamental level, it stems from the interconnectedness of financial institutions and the economy through debt (See FSB, IMF and BIS (2011), IMF(2014a)).

<sup>28</sup> Panama's banking sector is large, with total assets amounting to 192 percent of GDP, constituted by domestic banks and international banks. Financial intermediaries contribute 6.5 percent to GDP, on average, each year.

<sup>29</sup> [IMF, FSB, BIS \(2016\)](#) provides further details.

Systemic risks from general credit boom and bust cycles should be addressed by broad-based capital tools, such as capital buffers and leverage ratio requirements. Risks in household or corporate sectors would require more targeted sectoral tools, such as sector specific capital requirements and caps on LTV, DTI, or DSTI ratios. Resilience against liquidity shocks in the banking sector could be addressed by requiring adequate liquid asset buffers and restrictions on funding structure or maturity mismatch. The structural vulnerability from D-SIBs can be addressed by targeted prudential requirements (e.g., a specific capital buffer for D-SIBs, introduction of the Internal Capital Adequacy Assessment Process (ICAAP))<sup>30</sup> and supervisory framework (e.g., resolution and safety net)<sup>31</sup>, while other tools including large exposure limits and risk-weighting could also mitigate such risks. Macroprudential tools that the SBP currently has in place include dynamic provisioning, a specific provisioning requirement for exposures to borrowers from the CFZ, and sectoral risk weights. The macroprudential measures taken to address the risks of the pandemic have been phased out.

## A. Broad-Based Measures

**35. Banks need to build enough capital buffers during periods of economic stability to absorb losses during downturns while maintaining the ability to provide credit to the economy.** Broad-based macroprudential policy tools are designed to build these capital buffers. They include CCyBs, dynamic loan loss provisioning requirements (DPRs), leverage ratios, and caps on credit growth. These tools are complementary. Their objectives are to enhance the resilience of the financial sector and reduce the procyclicality of bank lending. Capital buffers can be drawn down during times of financial stress to cover unexpected losses. The Basel III CCyB is raised during a boom in the credit cycle and lowered during the bust phase (i.e., in a countercyclical manner) within the range of 0 and 2.5 percent of common equity Tier 1 (CET1).<sup>32 33</sup> A DPR can be an alternative to the CCyB; it requires loan-loss provisioning to cover expected losses (EL) over an average economic cycle. Like the CCyB, DPRs typically allow banks to build a countercyclical reserve during boom periods and draw it down during downturns to cover losses.<sup>34</sup> Panama currently has dynamic provisioning (see below) but no CCyB. Capital-based macroprudential policy buffers are particularly warranted for Panamanian banks, given the absence of a central bank that would be able to react countercyclically to economic dynamics, especially downturns. Maintaining higher capital buffers

<sup>30</sup> The Basel Core Principles Detailed Assessment Report prepared as part of the FSAP discusses improvements to the prudential requirements for banks.

<sup>31</sup> Please see the separate Technical Note on Financial Safety Net, Resolution and Crisis Management.

<sup>32</sup> See [BCBS \(2011\)](#). While capital buffers are not considered a “regulatory minimum”, restrictions are imposed on dividend payouts and other forms of capital distribution where there is a breach of the required capital buffer level.

<sup>33</sup> See [BCBS \(2018\)](#) for further information on the CCyB and the Capital Conservation Buffer (CCB) and the interaction between these two buffers.

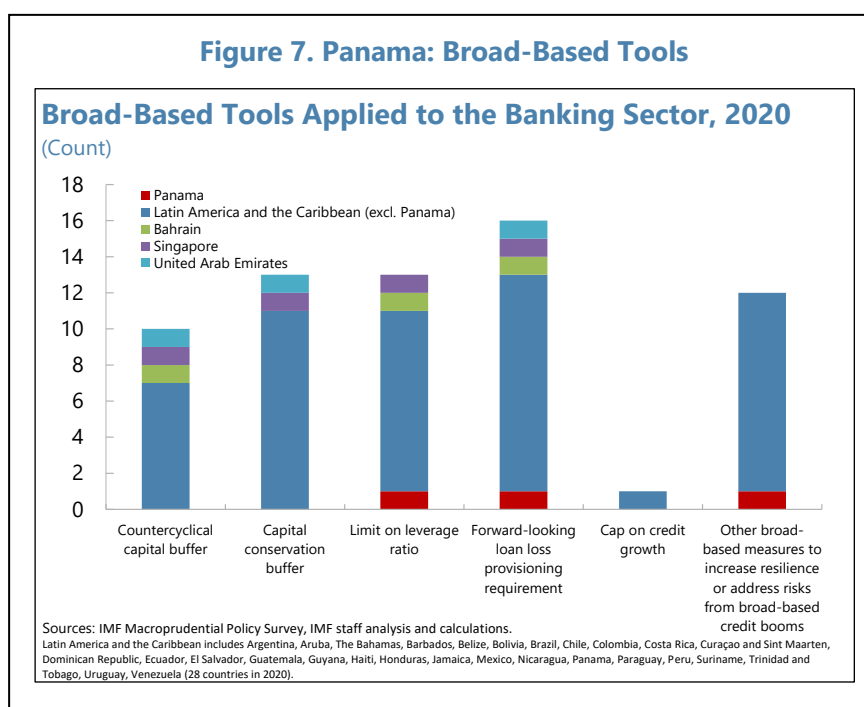
<sup>34</sup> Dynamic provisioning is thus more countercyclical compared with provisioning based on incurred losses. [Wezel, Chan-Lau and Columba \(2011\)](#) provide a detailed discussion of the framework.

would help reduce the risk of liquidity risks materializing as a consequence of potential concerns over insufficient solvency of banks.

**36. Other broad-based measures include leverage ratios and caps on credit growth.** A leverage ratio is computed by dividing a capital measure (e.g., CET1) by an (unweighted) “exposure measure,” which is commonly the bank’s total consolidated assets and off-balance sheet exposures. It complements the risk-based capital requirements by containing the buildup of leverage using instruments with low risk weights.<sup>35</sup> Caps on credit growth have been used by some countries to reduce excessive credit growth. They can be effective when other instruments are unavailable or do not act quickly enough, but they are relatively blunt instruments that are prone to leakage. Experience with them varies.<sup>36</sup>

**37. During the past decade, Panama focused on strengthening its prudential regulation to build appropriate capital buffers by implementing Basel III requirements.** Specifically:

- **Capital.** The definition of regulatory capital was revised by the SBP in 2015 in line with Basel III. Rule 1-2015 introduced a minimum of 4.5 percent for CET1, 6 percent for Tier 1 and 8 percent for total risk-based capital.<sup>37</sup> These requirements were also extended to bank holding companies to strengthen consolidated supervision. The Basel III capital charges for operational and market risks were implemented in 2017.



- **Leverage ratio.** Along with the new definition of capital introduced in 2015, a leverage ratio was introduced. It is aimed at restricting banks from taking excessive risk by capping the growth of

<sup>35</sup> See [BCBS \(2014a\)](#).

<sup>36</sup> See [International Monetary Fund \(2014b\)](#).

<sup>37</sup> The minimum capital requirements were gradually phased in, starting from 3.75 percent for CET1 and 5.25 percent for Tier 1, through January 2019.

assets relative to capital. The ratio is defined as CET1 divided by total non-risk-weighted exposures, with the minimum requirement set at 3 percent.

**38. The SBP implemented dynamic provisioning in 2013 aimed at reducing the procyclicality of banks' provisions and earnings.** The amount of DPR<sup>38</sup> is calculated as:

$$\text{DPR}(t) = \alpha L(t) + \beta \max\{\Delta L(t), 0\} - \text{SP}(t)$$

where:  $\alpha = 1.5$  percent,  $\beta = 5$  percent,  $L(t) = \text{RWA}$  for loans classified under the normal category, and  $\text{SP}(t) = \text{variation in the balance of specific provisions}$ .

- The amount of DPR is capped at 2.5 percent of qualifying RWA and is subject to a floor of 1.25 percent of qualifying RWA.
- Each bank calculates its level of DPR every quarter based on the quarterly change in the amount of risk-weighted loan exposures and quarterly variation in specific provisions. Rule 4-2013 indicates that the amount of DPR "cannot be less than the amount established in the previous quarter, unless the decrease is the result of a conversion to specific provisions."
- DPR is disclosed as a standalone item in the capital account and, banks are required to maintain the amount of DPR in addition to the 8 percent regulatory minimum capital requirement.
- The drawdown of DPR during a downturn is restricted and subject to a decision by the SBP.

**39. Following the onset of the COVID-19 pandemic, the SBP made a discretionary decision to release 80 percent of dynamic provisions as a pre-emptive measure.**<sup>39</sup> This is a macroprudential decision that loosened the stance in the wake of an unprecedented GDP contraction, to mitigate the risk of a credit crunch and the emergence of a vicious circle between credit and real activity.

**40. The SBP also uses *ad hoc* specific provisioning requirements under certain circumstances (and often as a contingency measure) to boost banks' resilience to shocks.** The objective is to respond to vulnerabilities as they emerge and mitigate their impact, by increasing loss-absorbing buffers for certain exposures (and in some cases reducing lending growth to specific sectors). Some examples are:

- **Ad hoc provisioning requirement during the COVID-19 pandemic.** Panama was severely affected as it had one of the highest COVID-19 fatality rates in the world. The SBP implemented a temporary framework for debt service relief to support borrowers who were affected by the

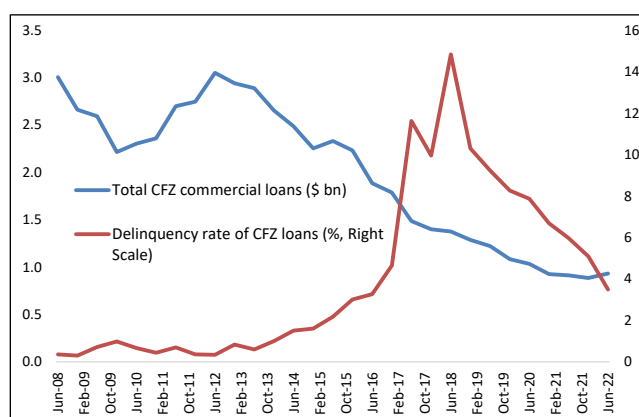
<sup>38</sup> The DPR is a capital account that is paid or credited to the retained earnings account. The credited balance of the dynamic reserve is part of regulatory capital but cannot be included in the calculation of capital to meet the regulatory minimum of 8 percent (i.e., banks need to maintain the DPR above it). Rule 4-2013 provides further details.

<sup>39</sup> The release of the dynamic provisioning was done before the increase in *ad hoc* (specific) provisions (3 percent of gross modified loans), which automatically reduced the level of required dynamic provisions (based on the DPR formula). Only six banks used their dynamic provisioning during the pandemic.

pandemic and preserve the stability of banks (Box 2). Under this temporary forbearance, loans that were modified were not classified as NPLs. To ensure that banks had adequate buffers to absorb losses, the SBP implemented an ad hoc provisioning requirement (Rule 9-2020), which mandated banks to create a provision equivalent to 3 percent of the gross modified loan portfolio.

- Specific provisioning requirement for Colón Free Zone (CFZ) commercial loans.** The Venezuelan economic crisis, which started in 2013, had a significant impact on the banking sector, as Venezuelans were the main users of the CFZ at that time. The credit exposure of general licensed banks to CFZ commercial loans amounted to 3 percent of total loans. As Venezuela fell into hyperinflation and Panama rescinded commercial relations with the country, delinquency rates rose, from 0.3 percent of total CFZ commercial loans in mid-2012 to a high of 15 percent of total CFZ commercial loans by mid-2018. The higher credit risk from commercial lending to the CFZ prompted the SBP to activate a specific provisioning requirement on loans given by banks to CFZ companies as a contingency measure to ensure adequate buffers to absorb losses from defaults and to reduce lending to this sector. Rule 2-2014 established the specific provisioning requirement based on the level of indebtedness of the debtors (CFZ companies). Following this regulatory measure, the total CFZ commercial loans and NPLs declined.

**Figure 8. Panama: Total CFZ Commercial Loans and Delinquency Rate**



Source: SBP.

**Table 8. Panama: Rule 2-2014: Specific Provisioning Requirement**

Level of indebtedness (total liabilities divided by equity)	Specific provision (as a percent of debtors' (CFZ companies) uncovered debt)
3 to 4.9 times	10 percent
5 to 7.9 times	15 percent
8 to 12.9 times.	20 percent
Equal to or greater than 13 times, or having negative net equity	50 percent

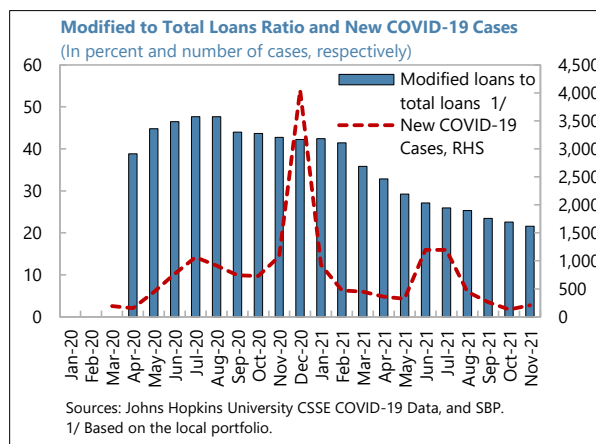
## Box 2. Panama: Management of the Banking Sector During the COVID-19 Pandemic

**Panama was severely affected by the COVID-19 pandemic.** To contain the spread of the virus, the authorities implemented stringent measures, including—among others—curfews, a mandatory quarantine, a sanitary fence around affected areas, school closures, and suspensions of commercial flights and construction projects except health-related ones. Along with a global recession, these containment measures significantly reduced mobility and commercial activity, precipitating a sharp contraction of the economy (by 17.9 percent in 2020) and an increase in the unemployment rate to 18.5 percent in September 2020 (from 7.1 percent in 2019). As a result, many borrowers affected by the pandemic had difficulty servicing their loans, putting pressures on banks' asset quality. There was concern that a significant increase in NPLs could jeopardize financial stability and further exacerbate the downturn in the domestic economy. This prompted the authorities to take temporary remedial actions to support affected borrowers and preserve the stability of banks.

**To support borrowers who were affected by the pandemic, the authorities put in place a framework for temporary debt service relief.** As borrowers affected by the pandemic were unable to service their loans due to loss of income, the government and the banking community agreed on a temporary framework of debt service relief for certain categories of loans, from March until the end of 2020. The framework allowed banks and their customers to agree on modified terms and conditions for loans, in the form of voluntary loan restructuring, grace periods, and in some cases, interest rate reductions. Loans that were thus modified would not be classified as NPLs. As the recession deepened, the share of modified loans increased to a high of 47.6 percent in July 2020 (of the local loan portfolio), from 38.8 percent in April 2020. The framework was extended until June 30, 2021 following an announcement by President Cortizo in October 2020. Thanks to this debt service relief framework, the pandemic only had a modest impact on NPLs. The ratio of NPLs to total loans rose to 2.0 percent in the fourth quarter of 2020, from 1.7 percent in the first quarter. Since then, it rose to 2.7 percent in the second quarter of 2022, reflecting the recognition of credit losses following the end of the debt service relief framework.

**To safeguard financial stability, the authorities released banks' dynamic provisions and implemented an *ad hoc* provisioning requirement.** The SBP allowed the use of dynamic provisions made by banks during periods of economic prosperity amounting to US\$1.3 billion (about 2 percent of GDP) to absorb write-offs, where needed. Only six banks used such provisions. At the same time, an *ad hoc* regulatory requirement was implemented, requiring banks to create a provision equivalent to 3 percent of the gross modified loan portfolio. This helped to increase total loan-loss provision to 148 percent of NPLs in 2020 (from 102 percent of NPLs in 2019). Overall, the release of the dynamic provisions and the *ad hoc* provisioning requirement increased banks' loss-absorbing buffers. Throughout the pandemic, the total regulatory capital adequacy ratio in the banking sector remained high, averaging 15.7 percent in 2020, partly supported by these *ad hoc* measures along with the debt service relief framework.

**As health conditions improved and more sectors of the economy started to reopen, economic activity began to recover, and the share of modified loans started to decline.** Modified loans that were serviced for six consecutive months were reclassified as normal loans. Thus, after peaking at 47.6 percent of total loans in July 2020, the share of modified loans gradually improved to 42.2 percent at the end of 2020. The government's vaccination campaign, which started in January 2021, helped to accelerate the economic recovery further. By November 2021, 70 percent of Panama's





**Box 2. Panama: Management of the Banking Sector During the COVID-19 Pandemic (concluded)**

population had been vaccinated with at least one dose of a COVID-19 vaccine. As Panama's economy continued to rebound strongly in 2021, loan service improved significantly, anchoring a further reduction in modified loans to 16.8 percent of total loans at the end of 2021 and 2.7 percent in November 2022. In January 2023, all remaining modified loans were reclassified according to the prepandemic regulation (Rule 4-2013).

**41. A roadmap is in place to guide the implementation of a capital conservation buffer (CCB) and a surcharge for systemically important banks.** At present, Panama's capital adequacy regulations include neither a CCB buffer nor a CCyB buffer. Basel III requires the adoption of the CCB but allows the implementation of the CCyB at the authorities' discretion. The SBP aims to implement CCB and a surcharge for D-SIBs<sup>40</sup> according to the following schedule:

Table 9. Panama: Basel III Roadmap	
Capital conservation buffer	<ul style="list-style-type: none"> <li>• <b>2023:</b> Issuance of regulation for the CCB requirement</li> <li>• <b>December 2024:</b> First stage of CCB (1.25 percent of common equity) to be established by banks</li> <li>• <b>December 2025:</b> Second stage of CCB (additional 1.25 percent of common equity) to be established by banks</li> </ul>
D-SIB surcharge	<ul style="list-style-type: none"> <li>• <b>December 2024:</b> Issuance of regulation on the systemic buffer</li> <li>• <b>December 2026:</b> D-SIB surcharge (1.5 percent) to be fully implemented</li> </ul>

**42. The SBP intends to fully restore dynamic provisioning across all banks before deciding whether to implement the CCyB.** The SBP considers that thus far, dynamic provisioning has been effective in preserving banks' solvency during periods of stress, and as such, the SBP intends to restore it across all banks by March 2024. Once dynamic provisioning has been fully restored, the SBP will consider the possibility of implementing the CCyB and whether it may replace or coexist with the dynamic provisioning scheme.<sup>41</sup>

## Recommendations

**43. As Panama does not have a lender of last resort and its financial system could be at risk from shocks originating abroad, stronger capital buffers are necessary to enhance the system's resilience.** The implementation of Basel III capital-related macroprudential tools (CCB, CCyB, and surcharge for D-SIBs) would help increase loss-absorbing buffers and bolster resilience to unforeseen downturns, particularly as the exposures to real estate and construction are large.

<sup>40</sup> The SBP has identified ten D-SIBs, accounting for two thirds of total assets in the banking system. Six of these D-SIBs are owned by Panamanians (comprising 60 percent of total D-SIB assets).

<sup>41</sup> Dynamic provisioning and a CCyB are similar instruments in the sense of their intended effects—to mitigate procyclicality, by building buffers during good times and have them available during economic downturns. One difference is that dynamic provisioning operates on actual capital ratios, while CCyB is a capital buffer requirement and therefore influences actual bank capital ratio dynamics only indirectly.



Panama is also susceptible to risks originating from abroad. The systemic risk analysis conducted under the FSAP found a notable extent of cross-bank interconnectedness, including notable levels of centrality of banks that are currently already assigned the D-SIB label. This is an additional factor that supports the introduction of D-SIB surcharges, beyond the size of these banks. An important argument in favor of the CCyB, especially for a country that hosts a significant number of branches of foreign banks, is its feature of jurisdictional reciprocity.<sup>42</sup> An authority that activates the buffer in a jurisdiction is expected to promptly inform its foreign counterparts. In turn, authorities in other jurisdictions should require their banks to apply the buffer for exposures in that jurisdiction. This reciprocal mechanism seeks to minimize the degree of cross-border spillovers and regulatory arbitrage. Reciprocity is mandatory for all BCBS member jurisdictions for a CCyB up to 2.5 percent.<sup>43</sup>

**44. The SBP should refine the strategy for existing tools, reflecting the planned addition of the Basel III capital tools.** As the SBP has put in place a roadmap to implement the CCB and surcharge for D-SIBs, as well as consideration of the CCyB, clarifying the main objectives of each tool would be important to prevent overlaps. For example, an assessment of the need to adjust the parameters of dynamic provisioning (e.g., its floor and cap) would be useful to ensure that it continues to be in line with its objective, especially when the CCB is fully implemented. In addition, the merits of the CCyB should be assessed when evaluating the objective of this tool (e.g., whether it should complement or replace the dynamic provisioning tool, as mentioned above). Another consideration when implementing the CCyB includes the positive cycle-neutral CCyB rates (Box 3). These strategies could be incorporated into the macroprudential strategy document.

### Box 3. Panama: Positive Cycle-Neutral CCyB Rates

**Objective.** The CCyB was designed with the primary objective of increasing the resilience of the banking sector in response to periods of excess aggregate credit growth, which have often been associated with the buildup of system-wide risks. Its objective is to ensure that banking sector capital requirements consider the macrofinancial environment in which banks operate. The CCyB can be calibrated upward by authorities in response to excess aggregate credit growth and then released during downturns, thus helping to reduce the risk that the supply of credit will be constrained by regulatory capital requirements that could undermine the performance of the real economy and result in additional credit losses in the banking system.<sup>1/</sup>

**Country circumstances.** The Basel Committee on Banking Supervision (BCBS) acknowledges the importance of considering country-specific circumstances when implementing the CCyB. While the Basel III standard prescribes various aspects of the CCyB framework, several elements remain under the discretion of national authorities and an increasing number of jurisdictions have chosen to implement positive cycle-neutral CCyB rates. Under this approach, authorities aim for a positive CCyB rate when risks are assessed to be neither subdued nor elevated. As is the case with CCyB activation and deactivation, authorities can employ a broad range of indicators, including the credit-to-GDP gap and other financial and macroeconomic metrics, to determine the cycle-neutral level of the CCyB.

**Experiences.** The BCBS noted that authorities that have introduced positive cycle-neutral CCyB rates have found it helpful for banks in their jurisdictions to have buffers of capital in place that can be released in the

<sup>42</sup> See [BCBS \(2019\)](#).

<sup>43</sup> It should be noted that dynamic provisioning also applies to foreign banks operating in Panama; it is reciprocated in that sense. Further, it covers the Panamanian banks' business abroad.

### Box 3. Panama: Positive Cycle-Neutral CCyB Rates (concluded)

event of sudden shocks, including those unrelated to the credit cycle, such as the impact of the COVID-19 pandemic.<sup>2/3/</sup> This approach may help address concerns that banks in some jurisdictions may be reluctant to cross regulatory buffer thresholds in times of stress but may be more willing to use their capital to support lending when buffers are explicitly released by authorities.

<sup>1/</sup> [BCBS \(2023\)](#).

<sup>2/</sup> [BCBS \(2022\)](#).

<sup>3/</sup> For the euro area, [Couaillier and others \(2022\)](#) find that buffer releases had the intended effect of supporting the provision of credit, especially for banks that were close to the requirements prior to the release. For the UK, [Mathur and others \(2023\)](#) find that banks with a lower headroom maintained relatively tighter lending standards for mortgages and were more risk averse than banks with larger headroom. When studying the impact of the CCyB release, they find that banks that received a greater capital relief from the CCyB reduction were more likely to maintain their lending to riskier loan categories.

## B. Sectoral Measures

**45. Sectoral measures relate to policy options to address the procyclical buildup of risks in specific sectors, such as the household and corporate sectors.** When a supervisor's systemic risk monitoring indicates a buildup of risk in a specific sector, such as rapid growth in credit and/or indebtedness, sectoral measures may be preferable to broad-based measures to address these risks. In general, there are two sets of sector-specific measures:

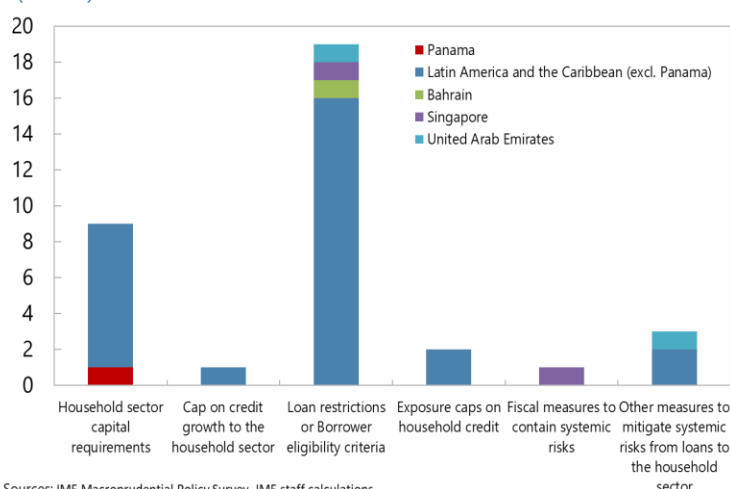
- **Sectoral capital requirements.** These can be in the form of higher risk weights on exposures to households or corporates (or subsectors of these) or additional capital requirements on specific economic sectors. These higher capital requirements increase loss-absorbing buffers, which enhances banks' resilience to adverse shocks from those sectors. Increases in the amount of regulatory capital also raise the cost of capital, thereby disincentivizing credit provision to these sectors.
- **Quantitative caps on borrowers' indebtedness.** This approach places limits on borrowers' indebtedness when banks grant new loans. For example, caps on LTV, DTI, and DSTI ratios could be imposed. Similarly, a cap on LTV and debt-service-to-operating-income of corporate borrowers could be implemented to mitigate risks in corporate lending, which could also be useful to constrain excessive leverage in particular sectors, such as commercial real estate. These tools directly restrict credit supply to excessively leveraged or indebted borrowers, while also enhancing financial resilience by lowering the probability of default (PD) or loss given default (LGD) through restricting high-risk credits and discouraging debt-funded speculation. However, a broad use of debt servicing limits for corporate borrowers is not common, as differences in industries' natural leverage makes these tools difficult to implement and the ability of corporate borrowers to source lending from outside the banking sector makes them prone to circumvention.
- Tools targeting corporate sectors are conceptually the same, typically using LTVs and debt service-to-income (DSTI) ratios as metrics.

**46. The SBP has implemented sectoral risk weights targeted at households and the corporate sector.** The sectoral capital requirements, established in 2016 by Rule 3-2016, are determined by the risk weights according to the type of loans, LTV ratio, and features of collateral. The SBP does not intend to adjust the parameters of the sectoral risk weights for mortgages and corporate loans in an active and time-varying manner.

<b>Table 10. Panama: Sectoral Risk Weights for Lending to Households and Nonfinancial Corporations</b>	
<b>Household Sector<sup>1/</sup></b>	<b>Corporate Sector</b>
<ul style="list-style-type: none"> <li>• Thirty-five percent for the main home if the LTV ratio is less than 80 percent, with the appraisal completed in the past three years.</li> <li>• Fifty percent for the main home if the LTV ratio is between 80 and 100 percent, with the appraisal conducted within the past 10 years.</li> <li>• Fifty percent for mortgages on second homes, provided the LTV ratio is not greater than 80 percent and the appraisal conducted within the past five years.</li> <li>• Fifty percent for the main home if the LTV ratio is less than 80 percent and the appraisal conducted more than three years ago.</li> <li>• One hundred percent for all other mortgages.</li> </ul>	<ul style="list-style-type: none"> <li>• Fifty percent if pledged by commercial real estate that is used as collateral with an LTV ratio less than 60 percent and an appraisal conducted within the last three years, or if pledged by residential properties that are used as collateral with an LTV ratio less than 70 percent and an appraisal conducted within the past three years.</li> </ul>
<sup>1/</sup> The risk weights will be recalibrated when the properties underlying the mortgages are revalued (once every three years).	

**Figure 9. Panama: Household and Corporate Sector Tools****Household Sector Tools, 2020**

(Count)

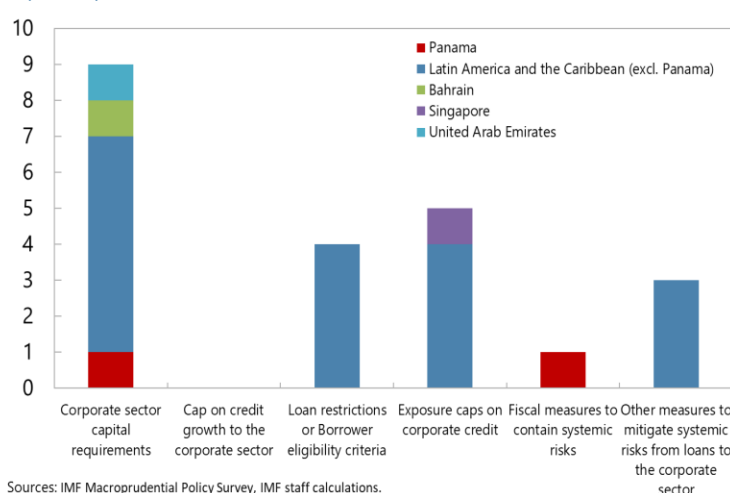


Sources: IMF Macropprudential Policy Survey, IMF staff calculations.

Latin America and the Caribbean includes Argentina, Aruba, The Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Curaçao and Sint Maarten, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela (28 countries in 2020).

**Corporate Sector Tools, 2020**

(Count)



Sources: IMF Macropprudential Policy Survey, IMF staff calculations.

Latin America and the Caribbean includes Argentina, Aruba, The Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Curaçao and Sint Maarten, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela (28 countries in 2020).

**47. The SBP has the ability to increase risk weights for lending to the household and corporate sectors.** One example is in the case of vehicle loans where the SBP observed a significant extension of these loans from five years to nine years (average term of six years) by a large number of banks in 2008, which could lead to higher risk.<sup>44</sup> As a macroprudential policy response, the SBP increased the risk weight for vehicle loans with original or remaining term greater than five years to

<sup>44</sup> [Guo et al \(2017\)](#) found that auto loans with terms longer than five years have higher delinquency rates than shorter-term loans during each year in their lifetime.

125 percent (Rule 5-2008) from 100 percent to disincentivize banks from granting vehicle loans with tenures longer than five years.

**48. As and when conditions warrant, the SBP may adapt loan classification rules on the basis of macroprudential considerations.** For example, as part of its efforts to preserve the banking system's stability during the pandemic, the SBP initially allowed modified loans not to be classified as NPLs and subsequently established a specific loan classification regime (Rule 3-2021) based on the loan service by affected borrowers and the status of the loan's restructuring process (Figure 10).

**Figure 10. Panama: Modified Loan Classifications**

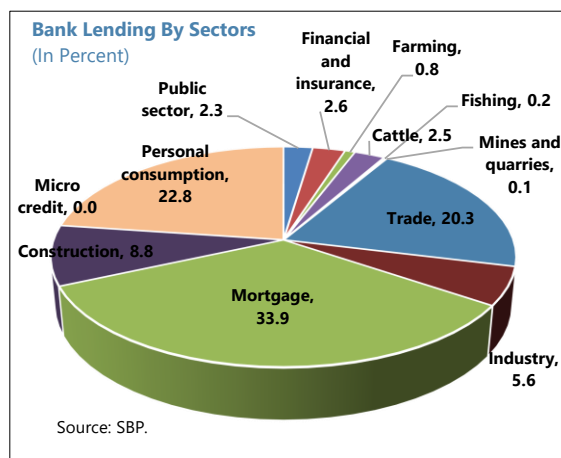
Modified Normal	Modified Special mention	Modified Subnormal	Modified Doubtful	Modified Irrecoverable
<ul style="list-style-type: none"> <li>Bank has agreed to modify the terms and conditions of the loan until June 30, 2021 in line with Agreement 2, 2021.</li> <li>Borrower is in compliance with its new terms and conditions.</li> </ul>	<ul style="list-style-type: none"> <li>Bank has agreed on the grace periods for capital, interest or other terms, in line Agreement 2, 2021.</li> <li>Borrower is in compliance with the grace period.</li> </ul>	<ul style="list-style-type: none"> <li>Bank agreed to the new terms and conditions following the restructuring during the period from July 1 to September 30, 2021.</li> <li>Borrower is in compliance with these terms.</li> </ul>	<ul style="list-style-type: none"> <li>Affected borrowers have contacted the bank as of June 30, 2021, and their current financial conditions do not allow them to meet the terms and conditions for restructuring.</li> <li>Bank continues to maintain contact and discussion with the affected borrower.</li> </ul>	<ul style="list-style-type: none"> <li>Affected borrowers have totally or partially breached the terms and conditions agreed in the modified loans.</li> <li>In addition, this category encompasses modified loans from affected borrowers who, as of June 30, 2021, have not contacted the bank to establish a payment agreement.</li> </ul>

Source: SBP.

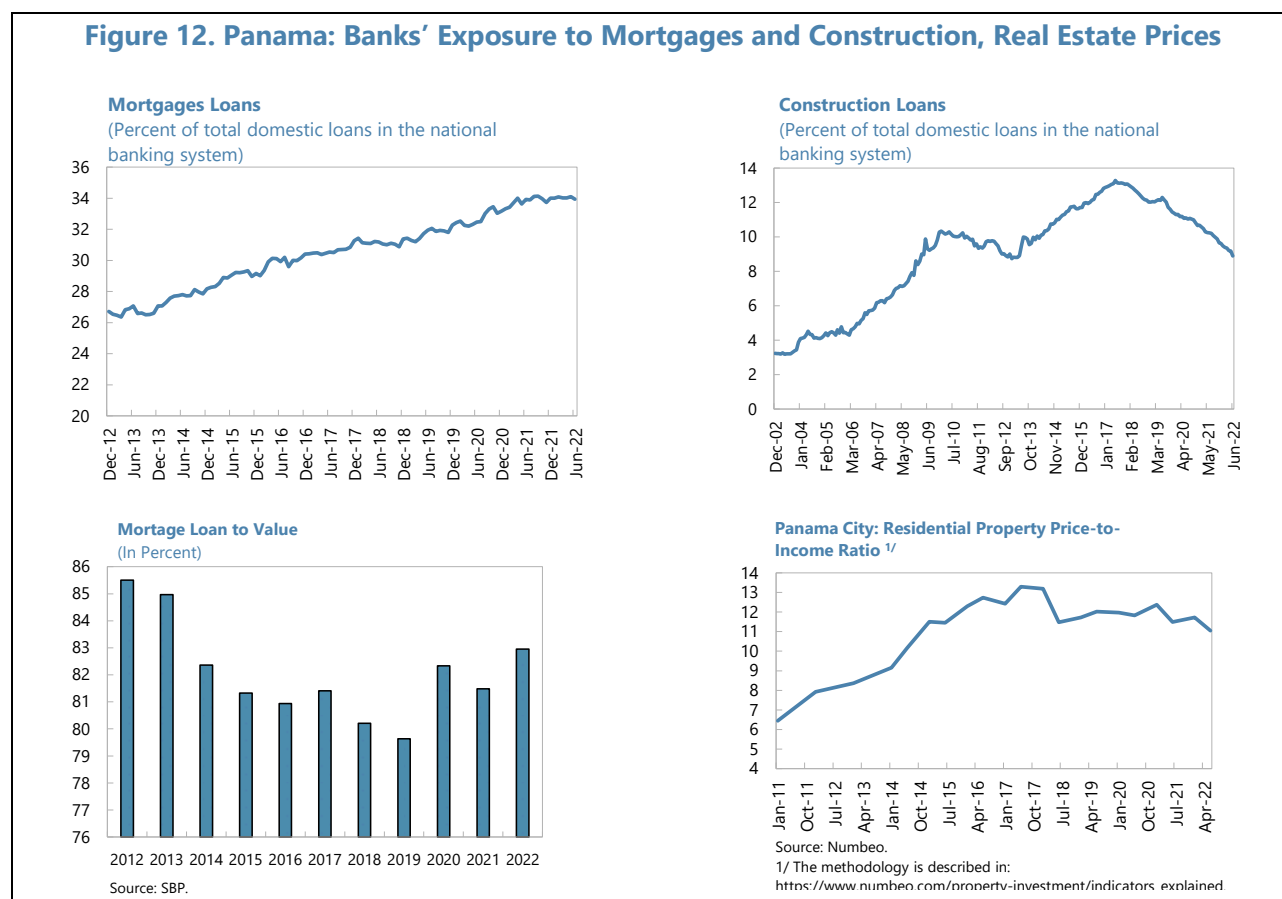
## Recommendations

**49. The use of macroprudential policy tools targeted at households is appropriate in view of the risks related to real estate.** Banks are highly exposed to mortgages and construction loans, which collectively comprise 42.7 percent of total lending (Figure 11). The LTV ratio of mortgages is high, on average (above 80 percent), and has increased since the COVID-19 pandemic (Figure 12). Weaknesses in the economy could lead to higher unemployment and deterioration in real estate prices, which increases the PD of these loans (Box 4). Resolution and enforcement of collateral takes time. An insolvency on average takes 2.5 years to resolve (based on data from the World Bank). As such, the existing sectoral risk weights should be complemented with additional borrower-based measures, such as caps on mortgage LTVs or limits on DTI/DSTI ratios targeted at preventing the buildup of these household risks. It will be beneficial for the SBP to develop

**Figure 11. Panama: Bank Lending by Sector**



quantitative frameworks to assess the effectiveness of borrower-based policy tools before introducing them (i.e., to conduct ex ante counterfactual analysis).<sup>45</sup>



**50. LTV caps can help contain cyclicity and bubbles in property markets.**<sup>46</sup> Limits on LTV ratios cap the size of secured loans relative to the appraised (or transaction) value of a property. While this tool is often applied in mortgage markets, it can also be applied to other secured loans, such as vehicle loans. LTV limits directly reduce the funding available to borrowers and screen marginal borrowers out of mortgage markets. They can thereby reduce housing demand, lead to a decrease in credit and house price growth, and, thus, help contain the procyclical feedback between credit and asset prices (credit demand channel). A tightening of the limits can also lead households to revise down their expectations of future house prices and reduce speculative incentives that play a key role in bubble dynamics (expectation channel). LTV limits bolster borrowers' resilience to house price shocks by increasing the equity in their residential property and can thus contain both the PD and LGD faced by lenders (resilience channel). By enforcing a minimum down payment, the limits can also reduce borrowers' incentive to default strategically when house prices fall (anti-

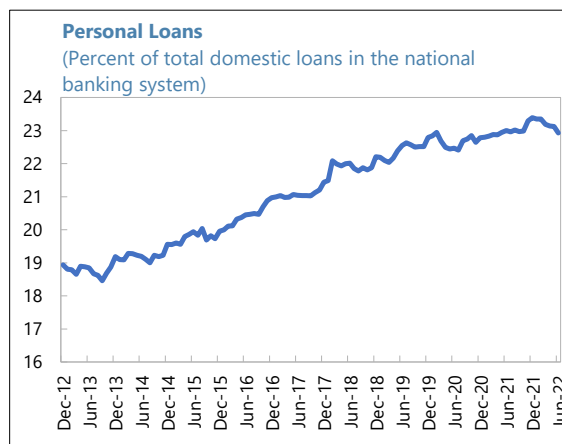
<sup>45</sup> Examples of quantitative model frameworks and analyses done in other countries include Gross and Población (2017) for European countries, Jurča et al. (2020) for Slovakia, and Neugebauer et al. (2021) for Portugal. Various additional references can also be found in Gross et al. (2022).

<sup>46</sup> This paragraph is largely based on IMF (2014b).

default channel). LTV caps can be differentiated depending on the risk profile of the borrower. For example, a relatively high LTV cap could be allowed for first-time home buyers purchasing a modest family home whereas lower caps could be applied to investors purchasing properties to rent out and/or as an investment. In Panama, purchasers of new residential properties costing under US\$ 180,000 are eligible for interest rate subsidies for 10 years, thereby reducing credit risk for a given LTV ratio.

**51. Implementing limits on DTI or DSTI would complement LTV caps.** The channels through which the effect of a DTI or DSTI limit is transmitted are similar to the LTV cap. However, these indicators are more stable as household incomes tend to fluctuate less over the credit or economic cycle than property prices. Moreover, the scope of a DTI or DSTI limit could be broadened to include noncollateralized exposures (such as personal loans and credit cards) to address the broader buildup of households' indebtedness. This is particularly relevant given the steady growth in personal loans, which now constitute the second largest category in banks' total lending (Figure 13).

**Figure 13. Panama: Personal Loans**



Source: SBP.

**52. The macroprudential policy toolkit should also be expanded to enable the containment of systemic risks in the corporate sector, particularly when the imposition of capital buffers does not lead banks to slow lending.** The potential tools include caps on the growth rate of new corporate credit or the share of new corporate loans in total new loans, especially in instances where corporate leverage has risen significantly beyond the trend and at a late stage of the credit cycle. Such exposure caps can be applied to segments or types of corporate exposures that are deemed particularly risky. A more direct way of achieving this is to impose a cap on the debt service to operating income ratio of corporate borrowers, although this may face implementation challenges (see paragraph 45). This can again be useful to constrain excessive leverage in any specific sector. It is worth noting that where these tools are adopted, they would need to be calibrated and costs and benefits should be evaluated.

**53. Addressing the borrower-level data gaps will enable the expansion of the macroprudential policy toolkit to include borrower-based tools.** The ongoing initiatives to enhance data collection are commendable and should be completed to close the remaining data gaps and enable the implementation of additional household and corporate sector borrower-based tools to complement core indicators (Table 11).

**Table 11. Panama: Macprudential Indicators**

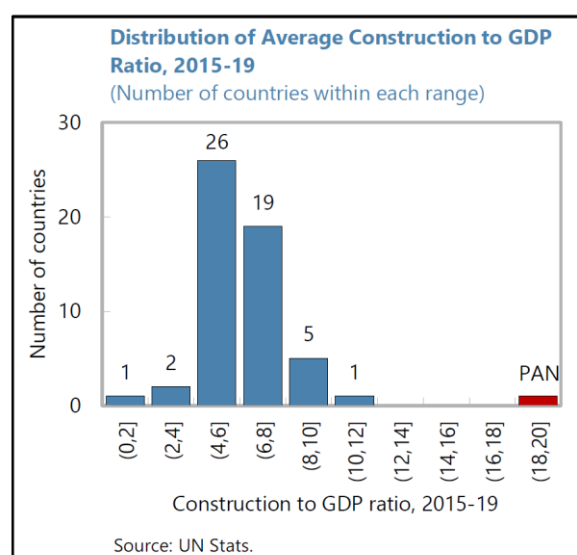
	Core Indicators	Additional Indicators
Household tools	<ul style="list-style-type: none"> <li>Household loan growth</li> <li>Increasing house prices (nominal and real growth)</li> <li>House price-to-rent and house price-to-disposable income ratio</li> <li>Increasing share of household loans to total credit</li> </ul>	<ul style="list-style-type: none"> <li>Increasing house prices by region and by types of properties</li> <li>LTV ratio</li> <li>DTI ratio</li> <li>DSTI ratio</li> </ul>
Corporate tools	<ul style="list-style-type: none"> <li>Corporate loan growth</li> <li>Increasing share of corporate loans to total credit</li> <li>Increasing commercial property prices</li> <li>Increasing commercial real estate credit</li> </ul>	<ul style="list-style-type: none"> <li>Increasing corporate leverage (debt-to-equity ratio)</li> <li>Corporate credit gap</li> <li>Increasing debt-service ratio</li> <li>Average and distribution of DSTIs on commercial real estate loans</li> <li>Average and distribution of LTVs on commercial real estate loans</li> </ul>

**Box 4. Panama: The Construction Boom in Panama**

**A vulnerability for Panamanian banks stems from the construction sector to which banks are exposed.**

Panama has benefited from a construction boom that has left the economy with the highest share of construction in GDP compared to other countries with similar income levels (Box Figure 1).

**In the decade and a half preceding the COVID-19 pandemic, several major construction projects contributed to economic growth.** The Panama Canal and the Tocumen Airport were expanded, new skyscrapers were built in Panama City, and one of the largest copper mines in the world was constructed. With total investment of up to 44 percent of GDP, real GDP grew by 6 percent annually. As a result, income levels rapidly converged with those in advanced countries, and Panama reached high-income country status in 2017, according to the World Bank classification methodology.





#### Box 4. Panama: The Construction Boom in Panama (concluded)

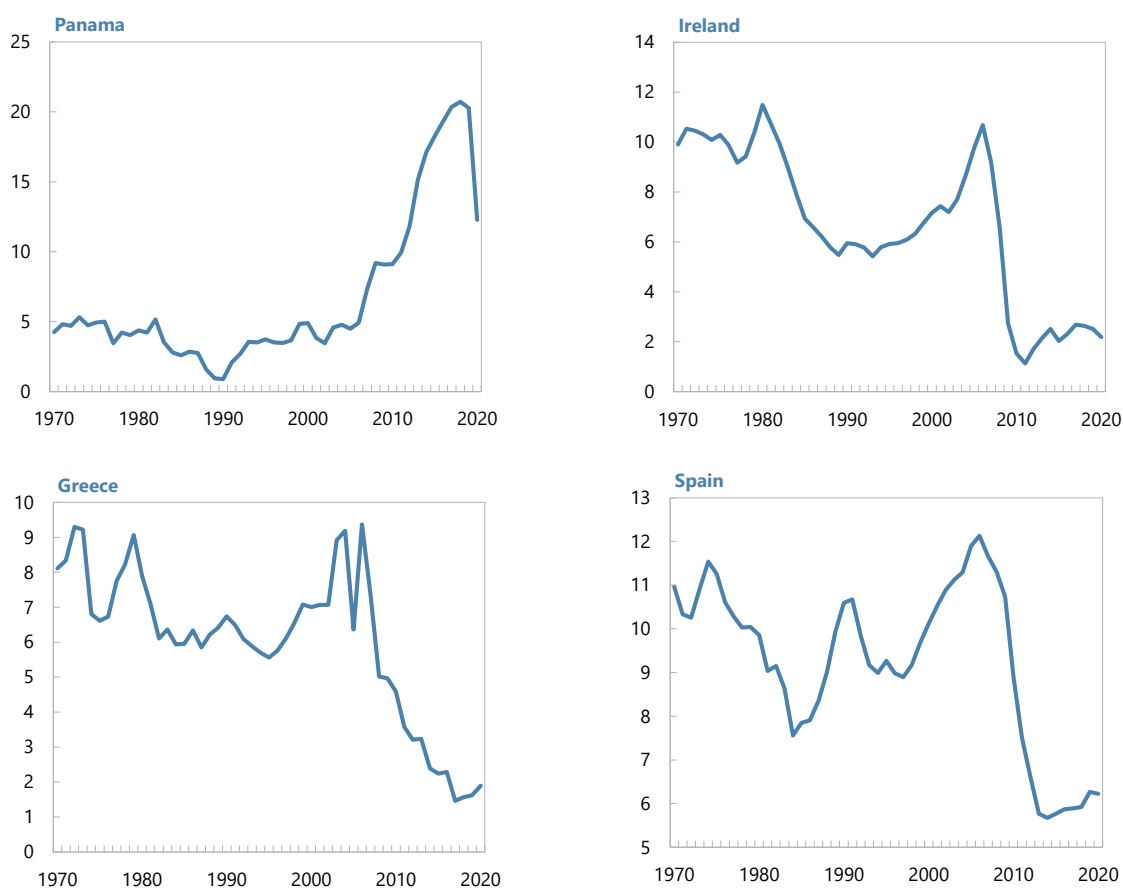
**The boom started to slow in 2018, and Panama's economic growth moderated to 3 percent in 2019.**

Investment gradually slowed following the completion of large public infrastructure projects, including the aforementioned expansion of the Panama Canal and the Tocumen International Airport.

**Banks are vulnerable to a slowdown in real estate and construction as the construction boom eases.**

External headwinds from global economic, geopolitical, and health-related developments could lead to a decline in the domestic economy, prompting decreasing demand for and prices of real estate. Fewer real estate sales imply for developers to face diminished cash inflows to finish ongoing projects and raising the possibility of debt defaults that would lead to rising NPL formation for banks. A high concentration of bank lending (47 percent) is in housing and construction.

#### Construction – Comparison between Countries, 1970-2020 (Percent of GDP)



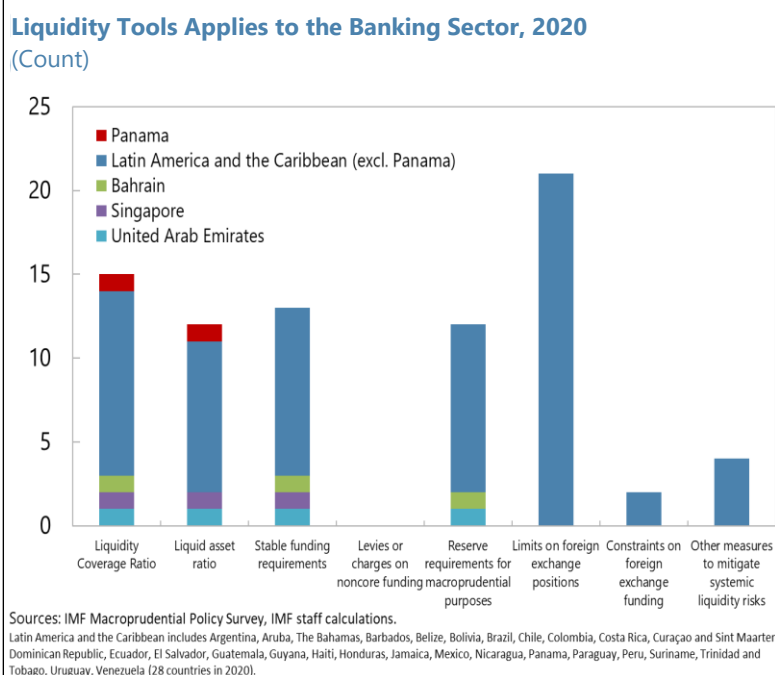
Sources: UN database of national accounts and IMF staff calculations.

## C. Liquidity and Structural Measures

### Liquidity tools

**54. Liquidity tools are intended to prevent systemic liquidity shocks by ensuring that banks maintain prudent liquidity buffers and avoid excessive maturity mismatches.** Following the Global Financial Crisis, the BCBS developed new liquidity tools, namely the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR).<sup>47</sup> The LCR is defined as the ratio of high-quality liquid assets over assumed cash outflows during 30 calendar days of severe liquidity stress. The Basel III standard requires internationally active banks to maintain an LCR of at least 100 percent during normal times. The NSFR supplements the LCR and is intended to reduce funding risk over a longer time horizon of one year. It has been developed to provide a sustainable maturity structure of assets and liabilities by requiring banks to fund their holdings of long-term assets from stable sources of funding. Many countries have introduced such instruments into their set of liquidity tools (Figure 14).

**Figure 14. Panama: Liquidity Tools Applied to Banking Sector**

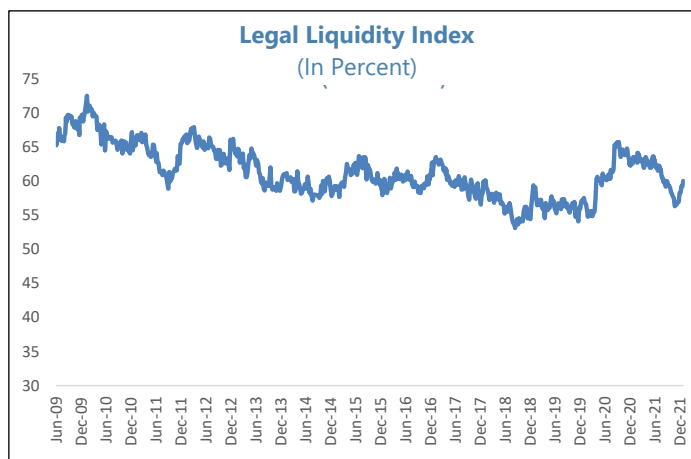


**55. While these BCBS tools establish a minimum level of liquidity for internationally active banks, other measures with the same concepts could also have a similar policy effect.** For Panama, the liquid asset buffer—Legal Liquidity Index (LLI)—introduced by the SBP in 2009, has been the most important measure to ensure sufficient liquidity in the banking system, given the lack of a central bank and deposit insurance. Under the LLI, banks are required to hold a minimum

<sup>47</sup> [BCBS \(2013\)](#) and [BCBS \(2014b\)](#) provide more details.

amount of liquid assets of at least 30 percent of qualifying deposits.<sup>48</sup> In other words, the LLI ensures that banks have enough liquid assets to cover at least 30 percent of deposits due in the next half year. Since its introduction, the banking sector's liquid assets averaged about 60 percent of short-term liabilities, well above the minimum requirement of 30 percent (Figure 15). Panama did not experience any systemic liquidity shortages during the Global Financial Crisis or the COVID-19 pandemic.

**Figure 15. Panama: Legal Liquidity Index**



Source: SBP.

**56. To complement the LLI, the SBP implemented the Basel III LCR.** The LCR is set at 100 percent for large banks and 50 percent for others.<sup>49</sup> Banks were initially granted a two-year period starting from 2018 to comply with the LCR requirement, but the timeline for compliance was subsequently extended to end-2022 due to the pandemic. By 2022Q3, all banks complied with the LCR requirement.

**57. The SBP intends to evaluate the feasibility of the NSFR before deciding on its implementation.** The SBP plans, in its regulatory roadmap, to begin a calculation exercise for this ratio with D-SIBs in 2024. It will gradually evaluate the impact on the banks to guide the issuance of a subsequent regulation.

## Recommendations

**58. In the absence of a lender of last resort and deposit insurance, ensuring that banks are liquid, in addition to being well capitalized, is essential to preserving financial stability and Panama's role as a regional financial center.** Measures to mitigate liquidity risks include:

<sup>48</sup> Qualifying deposits include private deposits, bank deposits, and deposits from other financial institutions with a maturity up to 186 days. Deposits received from the parent banks are excluded from this requirement. Liquid assets are short-term assets with maturities below 186 days.

<sup>49</sup> Unlike larger banks, small Panamanian banks are constrained by the amount of high-quality liquid assets (HQLA) that they could hold to meet the LCR requirement. The SBP is of the view that implementing a 'variant' of LCR on these banks could enhance—to a certain extent—their ability to withstand large deposit withdrawals although they are not obliged to impose the LCR requirement on all banks (for example, in the US, banks with assets under USD 250 billion are exempted from the standard LCR). In this regard, the SBP believes that it has taken a prudent approach. That said, setting the LCR at 50 percent for these banks appears unusual because it means that there may be only half the amount of HQLA to meet 30 days' worth of deposit liabilities.

- **Liquidity stress tests.** Developing liquidity stress testing—with the support of IMF TA—will help determine whether banks have sufficient funding sources to withstand unexpected market disruptions, particularly systemically important ones.
- **Safety nets.** In the medium term, a deposit insurance scheme should be developed to protect depositors and reduce the risk of deposit runs, and an official lender of last resort function should be put in place to support sound banks that experience temporary liquidity shortfalls. Until these reforms have been implemented, the emergency liquidity window of the Fund for Economic Stimulus (FES) should be kept in place.<sup>50</sup>
- **NSFR.** Consider introducing the NSFR following the evaluation planned by the SBP under its regulatory roadmap.

### **Structural tools**

**59. Structural macroprudential policy tools are aimed at mitigating systemic risks from interconnections within the financial sector and related spillover effects.** For example, the failure of a systemically important financial institution could pose negative externalities to the financial sector and broader economy due to its size, interconnectedness within the financial system, and lack of substitutability. To address this risk, the FSB and BCBS recommend additional loss-absorbing cushions in the form of capital buffers, as well as intensive supervision and improved resolvability. In addition, prudential tools such as limits on large exposures, could reduce interbank exposures, and thus mitigate excessive interconnectedness within the financial sector.

**60. The SBP has designated D-SIBs and will implement a D-SIB capital surcharge according to Basel III recommendations.** Ten D-SIBs have been identified, based on indicators such as size, interconnectedness, cross-jurisdictional activities, complexity, and substitutability. Collectively, they account for two-thirds of total assets in the banking system. Six of these D-SIBs (60 percent of total D-SIB assets) are owned by Panamanians. In its regulatory roadmap, the SBP aims to issue a regulation for a systemic buffer by end-2024 and to fully implement the D-SIB surcharge by end-2026 (see paragraph 41 and Table 9). One motivation for having D-SIB surcharges stems from interconnectedness, which is found to be notable for various Panamanian banks (including the ones that are designated D-SIBs already).

### **Recommendations**

**61. The SBP should develop a strategy to guide the appropriate timing and modality of implementing and activating each additional macroprudential policy tool.** In line with the

<sup>50</sup> The [FES](#) is a USD1 billion financial stability fund established for the refinancing of banks. It comprises two USD500 million facilities: an emergency liquidity window and a credit facility to stimulate the economy. It is owned by the MEF and managed by BNP. The liquidity facility is operated jointly by the SBP and BNP. It is structured as a revolving, short-term repo facility (up to 6 months), and is collateralized. The interest rate is fixed at 3.25 percent. Commercial banks must submit a request to the SBP to access the line. The SBP is responsible for assessing the financial soundness of the bank. Once the SBP approves the request, BNP will undertake the assessment of collateral and the disbursement of funds.

recommendations of the TA on the Macroprudential Policy Framework, a strategy with clear objectives and main indicators will help to guide the timing of the activation of additional macroprudential policy tools, based on an assessment of macrofinancial developments, and would also help the SBP in its communication with the public. For example, to build resilience with minimal tightening effects, many countries introduced the CCB in a phased-in manner over several years.<sup>51</sup> It is worth noting that circumstances could lead to a need to delay the full implementation of certain additional macroprudential policy tools. For instance, some countries postponed their planned phased introduction of capital buffers for systemically important financial institutions during the COVID-19 pandemic, as it would lead to a procyclical tightening of prudential policies that would discourage bank lending and thus slow the economic recovery.<sup>52</sup> As countries tighten capital requirements to build resilience after recovering from the pandemic (along with monetary policy tightening to address inflation), the pace of increase in capital requirements should consider the costs to banks of accumulating additional capital and should seek to avoid procyclical effects.

**62. The SBP should continue to build experience in evaluating policy effects.** As recommended in the TA on the Macroprudential Policy Framework, macroprudential analysis goes beyond systemic risk monitoring (Figure 16). Policy evaluation—both ex post and ex ante (policy simulation)—provides important inputs for the policy-making process. Accordingly, the SBP is encouraged to evaluate the effects of any measures taken, using the main indicators specified in the strategy, including any unintended side effects (e.g., on private credit growth and real GDP growth). Such an evaluation would help the SBP assess the potential need for policy adjustments, considering the feedback from market participants and experiences from other countries.<sup>53</sup>

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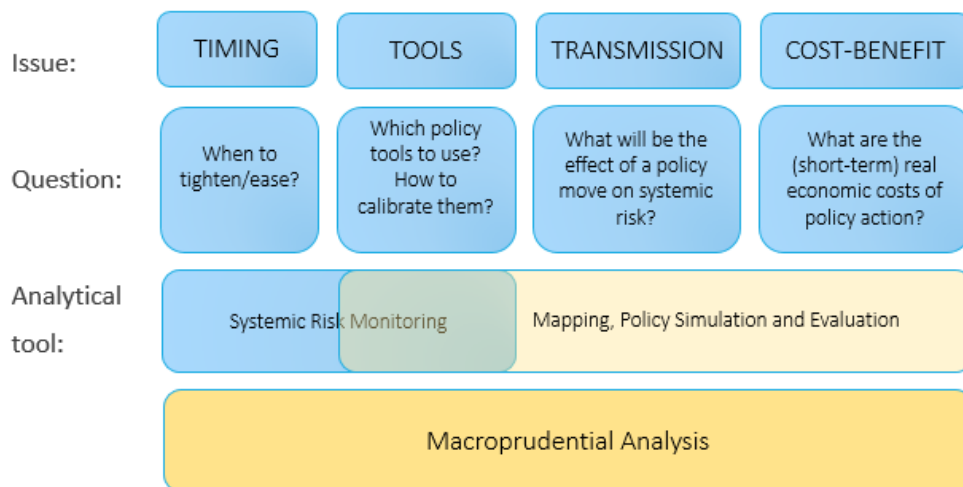
<sup>51</sup> The [IMF Macroprudential Policy Survey](#) database provides country-by-country details per macroprudential instrument.

<sup>52</sup> MCM notes [Nier and Olafsson \(2020\)](#) and [Kongsamut, Monaghan and Riedweg \(2021\)](#) provide further details.

<sup>53</sup> The IMF's [iMaPP database](#) provides useful information for empirical analyses. [Alam et al. \(2019\)](#) studied the effects and side-effects of the various tools. [Galati and Moessner \(2018\)](#), [Araujo et al. \(2020\)](#), and [BCBS \(2021\)](#) provide details of surveys.

**Figure 16. Panama: Macroprudential Analysis**

Key questions MP decision-makers have to face:



Source: TA Report on Macroprudential Policy Framework.

**63. The SBP should publish the data of the newly implemented LCR.** As banks have complied with the LCR requirement ahead of the end-2022 deadline, publishing the LCR indicator on the SBP's website (in addition to the LLI indicator) and in the IMF's Financial Soundness Indicators will help build a time series. This will increase transparency and build public confidence as it shows that Panamanian banks are observing an internationally recognized liquidity requirement.

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