TECHNICAL ASSISTANCE REPORT

GUATEMALA

Strengthening the Forecasting and Policy Analysis System at Bank of Guatemala (BANGUAT)

November 2025

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Glossary

ARIMA	Autoregressive Integrated Moving Average
BANGUAT	Banco de Guatemala
CAPTAC-DR	Regional Technical Assistance Center for Central America, Panama, and the Dominican Republic
DAMP	Department of Macroeconomic Analysis and Forecasting (by its acronym in Spanish)
DCRI	Department of Communication and Institutional Relations (by its acronym in Spanish)
DEM	Department of Macroeconomic Statistics (by its acronym in Spanish)
DIE	Department of Economic Research (by its acronym in Spanish)
EC	Execution Committee [Comité de Ejecución]
FT	Forecasting Team [Equipo de Pronóstico]
FPAS	Forecasting and Policy Analysis System
GDP	Gross Domestic Product
IMF	The International Monetary Fund
IT	Inflation Targeting
MB	Monetary Board
MP	Monetary Policy
MPR	Monetary Policy Report
QPM	Quarterly Projection Model
SVAR	Structural Vector Autoregression
TLPM	Tasa Líder de Política Monetaria (by its acronym in Spanish)
TA	Technical Assistance
US	United States
VAR	Vector Autoregression

Preface

At the request of the Banco de Guatemala (BANGUAT), an in-person Regional Technical Assistance Center for Central America, Panama, and the Dominican Republic (CAPTAC-DR) technical assistance (TA) mission assisted BANGUAT in reviewing the institutional framework of their Forecasting and Policy Analysis System (FPAS). The goal of this mission was to provide recommendations to construct an FPAS that better helps guide policy decisions and is better aligned with best practices. The TA was carried out in Guatemala City from March 3 through March 7, 2025. During the visit, Mr. Juan José Ospina (Short-term Monetary and Capital Markets Department External Expert, Banco de la República, Colombia) interviewed staff and management from different areas in charge of the design, implementation, and communication of monetary policy (MP) decisions. Meetings were held with BANGUAT's Vice-President, Mr. José Alfredo Blanco, BANGUAT's Chief Economist, Mr. Johny Gramajo, the Director and staff from the Department of Macroeconomic Analysis and Forecasting (DAMP, acronym in Spanish), the Director and staff from the Department of Economic Research (DIE), the Director and Staff of the Macroeconomic Statistics Department (DEM), the Director and Staff of the Department of Execution of Monetary, Exchange Rate and Credit Policies (DEPMCC), and the Director and staff of Department of Communication and Institutional Relations (DCRI).

The discussions covered: 1) the role of the FPAS in the monetary-policy decision making process and the benefits and frictions of the current system; 2) the coordination of the different departments involved in forecasting and policy analysis; 3) the use of the different models and tools used for forecasting and analysis; 4) how the balance of risks is determined and how it informs the policy discussions. Among these elements, some frictions of the current system, institutional arrangements, and coordination mechanisms between the different departments were identified, as well as some gaps with respect to best practices in the FPAS. Recommendations to address the frictions and fill these gaps are provided in this report.

The mission extends its gratitude to BANGUAT's staff for their cooperation, productive discussions, and hospitality throughout the TA, as well as for their logistical support in coordinating the work agenda. Additionally, the mission acknowledges the funding provided by CAPTAC-DR's financial partners and the invaluable support from CAPTAC-DR staff throughout the mission.

Executive Summary

Since 2005, the Banco de Guatemala (BANGUAT) has operated under an explicit inflation targeting (IT) regime and made significant strides in building it to support monetary policy making. Staff recommendations to the Monetary Board (MB) and policy decisions are based on a forward-looking assessment of economic risks, with the balance of risks around inflation playing a central role. In line with the adoption of IT, BANGUAT has adopted more forward-looking monetary policy decision-making processes and has developed various models and tools to monitor and forecast key macroeconomic variables, particularly inflation, in order to guide the path of interest rates towards meeting the inflation target.

Despite significant progress, there are still notable gaps in BANGUAT's Forecasting and Policy Analysis System (FPAS) when compared to best practices. Recently, the bank has introduced a new Quarterly Projection Model (QPM), which it plans to use as its primary forecasting model. However, progress on the FPAS, the organizational framework for the decision-making process, has been relatively limited. Notably, the Forecasting Team (FT), composed of staff from three different departments, lacks full coordination and often operates in silos. This fragmented approach prevents the team from fully utilizing the QPM and other tools to create a unified, macroeconomically coherent forecast, which could effectively guide policy recommendations to the MB and hinder the adoption of best practices in IT.

Some of the elements for effective decision making are already present and could support the implementation of the necessary changes. First, there is strong conviction and commitment from senior management. Second, there are appropriate institutional arrangements and rules to support implementation. Third, the staff across the three departments involved in forecasting— Macroeconomic Analysis and Forecasting (DAMP, acronym in Spanish), Macroeconomic Statistics Department (DEM), and Department of Economic Research (DIE)—are highly capable and utilize appropriate models and tools. Fourth, these departments already generate all the necessary ingredients for constructing a QPM-based forecast. Fifth, although the QPM, which provides a consistent theoretical framework for forecasting and policy analysis, is not yet fully integrated into the FPAS, monetary policy is already forward-looking, with the balance of risks around the inflation outlook playing a central role in decision-making. Additionally, the bank and its staff enjoy strong internal and public credibility and have achieved a high level of transparency. These elements can help facilitate the implementation of necessary changes.

To enhance the effectiveness, coherence, and policy relevance of the forecasting process, the mission has proposed a series of recommendations grouped into three broad themes (see Table1). First, the organization and structure of the forecasting process should be improved. Second, the QPM should be fully integrated into the forecasting process. Third, processes should be streamlined and the necessary infrastructure developed. Together, these measures will strengthen the FPAS, ensure a consistent narrative around the macroeconomic outlook, and better inform monetary policy decisions.

Improving the organization and structure of the forecasting process is essential for enhancing coordination and accountability. A key recommendation is to establish a dedicated position tasked with coordinating the efforts of the three departments involved in forecasting. This role would serve as a central point of contact, ensuring alignment across teams and facilitating smoother collaboration. Ideally,

BANGUAT should appoint a senior-level FT Coordinator with the mandate to align assumptions, coordinate departmental inputs, and oversee deliverables. The role should be formally integrated into BANGUAT's organizational structure and evaluated based on measurable coordination outcomes. At the same time, the DAMP should be strengthened to take a leading role in the process. This includes forming a dedicated team within the DAMP responsible for organizing and overseeing the forecasting workflow. In addition, within this theme, two recommendations stand out: streamlining the FT's structure to reduce bureaucracy and promote greater involvement from senior staff and experts, and ensuring that the FPAS leads naturally to a more timely, forecast-focused, and coherent Monetary Policy Report (MPR).

Integrating the QPM more systematically into the forecasting process is key to strengthening the FPAS. To achieve this, the FT should design and adopt a structured meeting schedule centered around the QPM, allowing for regular and informed discussions of model inputs, assumptions, and outputs with relevant subject-matter experts. These meetings would serve as a platform for refining the model-based projections and aligning them with current macroeconomic developments. In parallel, the team should make better use of the annual forecasts already prepared by the DAMP and the DEM, using them as a starting point to inform and improve the quarterly QPM-based forecasts.

Streamlining institutional processes and strengthening data infrastructure are critical for improving the efficiency and coherence of the forecasting process. A first step is to reduce overlapping responsibilities across the departments and units involved, ensuring clearer task delineation and avoiding duplication of effort. At the same time, developing a shared, centralized database is essential to guarantee consistent and accessible data for all teams contributing to the FPAS. This common infrastructure would promote better coordination, reduce errors, and support the development of a unified, macroeconomically consistent forecast.

Recommendations

Table 1. Key Recommendations

Recommendations and Authority Responsible for Implementation	Priority	Timeframe [1]
Organization and Structure:		
1. Establish a dedicated position responsible for coordinating the three departments involved in the forecasting process. Strengthen the role of the DAMP in leading the forecasting process and create a team within the DAMP to organize and oversee the forecasting workflow.	High	Short-Term
2. Establish a meeting schedule around the QPM and along the lines explained in this report for the FT and the Technical Committee to build the forecast. Follow the agenda strictly.	High	Short-Term
3. Review the organization of the FT to guarantee that the DAMP works closely with the DIE, reducing bureaucracy and guaranteeing participation from senior members and experts. Review whether the Technical Committee is needed.	Medium	Medium-Term
4. Center the FPAS around the preparation of the MPR. The MPR should be published more promptly following the MB's policy decision and focus more directly on the forecast and Guatemala's domestic macroeconomic outlook, rather than primarily on known facts or international developments.	Low	Long-Term
Incorporating the QPM in the Forecast		
5. Use the Gross Domestic Product (GDP) annual forecasts produced by the DEM and the inflation forecasts produced by the DAMP as well as outputs from satellite models and inputs from experts (judgements) to initially guide the QPM forecast and make a gradual introduction of the QPM.	High	Short-Term
6. Establish a meeting schedule around the assumptions and inputs required by the QPM. Guarantee sufficient time for discussions that can help the DIE produce a unified, credible forecast.	High	Short-Term
7. Produce a balance of risks for all relevant variables using the QPM and incorporate risk scenarios produced with the QPM in the policy discussion.	Low	Medium-Term
8. Engage in a peer-learning experience that supports the team in constructing a forecast in real time.	Medium	Medium-Term
Streamlining Processes and Building Infrastructure		
9. Streamlining processes: reduce overlap of activities across units(*secciones*) and departments and construct a common database.	High	Short-Term
10. Build a data system that allows the FT to download and upload inputs and outputs for the FPAS, guarantees replicability, fosters data integrity, and enables ex-post evaluation. Record and store judgements made during the forecast.	Medium	Long-Term

[1] Short term: < 12 months; Medium term: 12 to 24 months; Long term: more than 24 months.

Introduction

1. Since 2005, the BANGUAT has conducted monetary policy under an explicit inflation targeting (IT) regime. While the inflation target underwent adjustments in the early years, it has remained at 4 percent with a tolerance range of ±1 percentage point since 2013. Within this framework, BANGUAT's primary policy instrument is the monetary policy rate, known as the *Tasa de Interés Líder de Política Monetaria* (TLPM), which influences short-term interest rates and key macroeconomic and financial variables. The adoption of IT has been accompanied by the development of models, tools, and methods to monitor and forecast macroeconomic conditions—particularly inflation. These tools support the formulation of a policy rate path that strives to ensure inflation converges to the target over time.

2. BANGUAT has made substantial progress over the years in developing its FPAS. Today, staff recommendations to the MB, and the Board's subsequent decisions, are based on a forward-looking assessment of the economy in which the balance of risks around inflation plays a central role. To support this process, BANGUAT has developed a range of models and tools to monitor and forecast key macroeconomic variables, particularly inflation, and to guide the interest rate path toward meeting the inflation target. Most recently, the Bank introduced a new QPM, intended to serve as its primary forecasting tool. However, despite these advances, the QPM is not yet used to produce the official forecast and the FT does not work in a well-coordinated manner. As a result, the monetary policy response to shocks may not adequately reflect the full range of macroeconomic dynamics or ensure a quantitatively consistent reaction. This limits the coherence of the forecast from a general equilibrium perspective and weakens the link between the forecast and policy decisions.

3. BANGUAT has a long history of using macroeconomic models to support monetary policy analysis, but these models have had limited influence on the official forecast, the MPR, the balance of risks, and ultimately the policy rate decision. Since 2005, the DIE has led the development of forecasting models at the Bank—beginning with a semi-structural model, followed by the introduction of a Dynamic Stochastic General Equilibrium Model in 2011, and more recently, the creation of a semi-structural QPM. Although the QPM is used to produce forecasts that are presented to the FT and, in principle, to the Execution Committee (EC), there have been recent EC meetings where the QPM-based forecast was not discussed. A contributing factor is that the model lacks credibility among key FT members. In practice, BANGUAT's official inflation and GDP forecasts do not rely on the QPM but are instead based on satellite models developed by the DAMP and the DEM, supplemented by the expert judgement of staff.

4. In 2021 and 2024, BANGUAT received two TA missions that laid the groundwork for the current mission. The 2021 TA mission recommended that BANGUAT develop and implement a new semi-structural model, as well as review internal processes within the FPAS. Key recommendations included improving coordination and communication across departments and strengthening the role of models in the forecasting process. Following up on this, the 2024 TA mission assisted BANGUAT in developing the new QPM. However, as of today, the use of the QPM to guide policy-making remains limited, and some of the general deficiencies of the FPAS identified in 2021 persist. Additionally, several earlier recommendations have yet to be fully implemented. The 2024 mission also emphasized the importance of better integrating the QPM within a well-designed FPAS. While the development of the

QPM at DIE addresses some of the 2021 mission's recommendations, it also provides a foundation for reviewing the current FPAS and designing a new, more effective system.

5. The purpose of the current mission was to identify frictions and gaps in BANGUAT's forecasting processes and institutional arrangements, providing actionable insights to help design an FPAS that incorporates best practices. To achieve this, the mission examined and evaluated the role of the FPAS in the monetary decision-making process, the organization and coordination of the teams involved in forecasting, and the use of models in generating the forecast, balance of risks, and communication tools such as the MPR. On the final day of the mission, a presentation was made to BANGUAT's senior management, summarizing the findings and offering a preview of the recommendations, informed by experiences from other central banks. The key recommendations from the mission are presented in Table 1.

6. This report is organized around the key tasks that guided the mission's focus, grouped into three main themes. The first theme examines the overall organization and functioning of the forecasting process. The second theme focuses on the role and use of models in the forecasting process, with particular attention to the integration of the QPM within the FPAS. The third theme evaluates the efficiency of the processes and the supporting infrastructure for the FPAS. Each theme is further divided into three parts: a description of the current state, an assessment of the findings and gaps, and a set of recommendations aimed at addressing these gaps and improving the process towards the adoption of best practices.

I. Organization and Forecasting Process

A. Status Quo

7. Monetary policy in Guatemala is conducted through a well-defined institutional framework involving three key bodies: the MB, the EC, and the FT. Each plays a distinct but interconnected role in the decision-making process. The FT, led by the Chief Economist, is responsible for producing macroeconomic forecasts and formulating policy recommendations. These are reviewed and consolidated by the EC, which acts as a bridge between the technical staff and the MB. Ultimately, the MB—Guatemala's highest authority on monetary, exchange rate, and credit policy—uses this input to set the policy rate and guide overall policy decisions. In general, this process is forward-looking, with the balance of risks around the inflation forecast playing a central role. However, neither the forecast nor the risk assessment is currently produced using tools that aim to ensure internal consistency and a coherent macroeconomic narrative, such as general equilibrium models. The following paragraphs provide a closer look at the functions and interactions of each of these institutional actors.

8. The MB is the decision-making body at BANGUAT responsible for monetary, exchange rate, and credit policies. It is composed of the President of BANGUAT and seven non-permanent members representing various sectors of Guatemalan society. Each year, the MB publishes the "Resolución JM—YYYY: Revisión de Política Monetaria, Cambiaria y Crediticia," which outlines the intervention rules and parameters for the foreign exchange market, as well as the schedule of monetary policy meetings for the upcoming year. While the MB typically meets eight times a year—usually on the last Wednesday of each month—to decide on the policy interest rate TLPM, it also convenes weekly to address other matters. For its monetary policy decisions, the MB relies on recommendations provided by the EC.

9. The EC is responsible for communicating the staff's views and policy recommendations to the MB. It is composed of BANGUAT's President, Vice President, General Manager, Economic Manager (Chief Economist), and Financial Manager, and is supported by permanent advisors including the Directors of key departments (DAMP, DEM, DIE, and DCRI). In addition to implementing the policies set by the MB, the EC—under the leadership of the President of BANGUAT—also plays an advisory role. It formulates monetary policy recommendations for the MB based on the economic forecasts and the balance of risks prepared by the FT.

10. The FT, led by the Chief Economist, is responsible for advising the EC on monetary, exchange rate, and credit policies. The FT typically meets once a month to discuss and reach consensus on the economic forecasts and the balance of risks. The Chief Economist approves the final outputs of the FT, which become BANGUAT's official macroeconomic forecasts, and presents them to the EC along with a recommendation for the policy rate. In addition, the FT is responsible for evaluating and approving significant modifications to the Bank's core forecasting models.

11. The FT operates under a new set of rules aimed at strengthening its structure and processes to develop a more comprehensive and coherent view of the economy using macroeconomic models. The *Acuerdo de Gerencia General Número 132–2024* formally defines the

FT's composition, roles, and responsibilities. The team includes representatives from four departments—DIE, DAMP, DEM, and Financial Stability—and operates under the supervision of the Chief Economist. The FT is structured in two tiers: the first comprises permanent members, including the Chief Economist and the directors of the four departments. The second is the Technical Committee, led by the Director of the DIE, which is responsible for preparing forecasts and running the models that are ultimately presented to the FT. The Technical Committee is expected to meet at least once a month.

12. In the current setup of BANGUAT's FPAS, three departments independently produce forecasts, while one department is responsible for the balance of risks. Specifically, the DAMP prepares the inflation forecast for the next eight quarters; the DEM produces annual GDP growth forecasts for the current and following year; and the DIE generates forecasts for key macroeconomic variables using the QPM. Additionally, the DAMP conducts a qualitative assessment of the risks to the inflation outlook, drawing on inputs from its three units (International, Programming and Inflation, and Macro Analysis). This risk assessment informs the construction of a fan chart around the quarterly inflation forecast, which is based on the historical distribution of inflation and adjusted to reflect the identified balance of risks.

13. In practice, the FT adopts the inflation forecast produced by the DAMP and the growth forecast from the DEM, while dismissing the DIE's forecasts. Although the DIE, the DAMP, and the DEM are all involved in the forecasting process, the official forecasts ultimately reflect the outputs from the DAMP and the DEM. The DAMP and the DEM routinely exchange information to assess current economic conditions, with the DEM providing detailed data on sectoral activity and national accounts. Both departments also contribute inputs to the macroeconomic models maintained by the DIE. For example, the DEM supplies the DIE with a quarterly GDP nowcast, which is used internally but not officially published. Although the DIE's QPM-based forecasts are presented alongside those from the DAMP and the DEM to the Chief Economist and the FT, they are not selected as the official projections. As a result, BANGUAT's official inflation and GDP forecasts, the balance of risks, and policy recommendations are not grounded in the QPM or other macroeconomic models developed by DIE. Also in the MPR the DIE plays no role—the DEM drafts most sections related to economic activity, while the DAMP prepares the rest of the report.

14. BANGUAT utilizes several communication instruments and maintains a relatively high degree of transparency. After each MB meeting on policy rates, a press conference is held to announce the policy decision. During this conference, it is noted whether the decision was unanimous, and the Chief Economist presents the balance of risks and the rationale behind the decision, while the bank's management team is available to address questions. The presentation of the forecast and the balance of risks generally mirrors the one delivered to the MB. The following day, a separate public presentation is made for economic analysts. BANGUAT publishes its MPR three times a year—March, June, and September. However, the publication of the MPR does not coincide with the MB meetings; it is typically released in the second week of the second month of the subsequent quarter (i.e., the March report is published in the second week of May, the June report in the second week of August, and the September report in the second week of November). Additionally, in December, BANGUAT releases an annual document titled "Evaluation of Monetary, Exchange Rate, and Credit Policy as of November YYYY, and Economic Perspectives for YYYY+1". This report not only provides a comprehensive review of economic developments for the current year and forecasts for the following year, but it also includes

recommendations on parameters for exchange rate intervention and foreign reserves accumulation. Furthermore, it outlines BANGUAT's plans, initiatives, and accomplishments in enhancing various dimensions of its policymaking.

B. Assessment

Strengths

15. BANGUAT has a strong foundation to enhance its FPAS and develop it in line with international best practices. The institution is committed to addressing the current deficiencies in its FPAS by adopting best practices and improving its capabilities. Senior management, including the Vice President and Chief Economist, is deeply convinced that enhancements are necessary, particularly in better incorporating general equilibrium models. Their goal is to establish a refined version of the FPAS as a permanent institution within BANGUAT, reflecting their strong determination to advance forecasting capabilities and overall policy analysis.

16. BANGUAT has already established some rules and convictions that will help it overcome the current deficiencies in its forecasting system. One significant development is the establishment of a new FT bylaw (*Reglamento EP*), which formally defines the structure, roles, and responsibilities of the FT, including the appointment of a coordinator and their replacements. This development fosters better inter-departmental coordination (although it does not guarantee it), making it more likely that relevant stakeholders will align in their efforts. Additionally, the QPM is regarded as the core general equilibrium model for forecasting, a conviction held by DIE and some key senior members of the FT, including the Vice President and Chief Economist. This collective belief around the QPM's potential increases the likelihood that it can be successfully integrated into the FPAS.

17. Some aspects of BANGUAT's internal and external communication are already well developed, representing key pillars of an effective IT regime and FPAS. Internally, communication and coordination between the DAMP and the DEM function relatively well, supporting the preparation of annual forecasts and the drafting of the MPR. Externally, BANGUAT has established clear and consistent communication practices with the press, the public, and market analysts. Its communication tools—including press conferences, public presentations, and the MPR—are generally predictable in content, though the timing of the MPR has been somewhat less regular. These efforts reflect a strong commitment to transparency and accountability. This is further demonstrated by initiatives such as the publication of the annual evaluation document, the sharing of presentation materials with the public that mirror those used in policy discussions, and the existence of publicly available, clearly articulated rules for foreign exchange market intervention.

18. Two important elements that BANGUAT can build upon to improve its policy framework are its strong technical credibility and its forward-looking approach to MP. The technical staff has a solid track record of sound policy advice, which has earned them strong credibility with both the public and the MB. This trust is further reinforced by a policy process that places inflation risks at the center of analysis, with the EC-FT consistently adopting a forward-looking perspective in the recommendations they present to the MB.

Gaps

19. The FT continues to operate with a silo mentality, which significantly undermines effective communication and coordination. Although the three departments—the DAMP, the DIE, and the DEM—are directly involved in the FPAS and form one FT on paper, in practice, the work is carried out by two or three distinct, uncoordinated teams. This fragmentation has been recognized in the past, yet little progress has been made. While information and inputs are exchanged, there is a lack of meaningful collaboration, and the teams do not produce a fully coordinated forecast. Discussions on shocks and the economic narratives behind the data are limited and too infrequent—one monthly meeting is insufficient. Moreover, participants often feel compelled to present department-aligned positions in FT meetings. This pressure to align within departments rather than across them further entrenches silos and obstructs true integration.

20. DAMP's and DEM's forecasts often compete with those produced by the DIE, resulting in a fragmented and ultimately dysfunctional forecasting process. In practice, this means the team does not operate as a cohesive unit. In particular, the DIE's contributions—including the QPM, the joint forecast of the key macroeconomic variables, and risk scenarios—have not been meaningfully integrated into the FPAS or the MPR.

21. The forecast, balance of risks, and macroeconomic analysis often lack a coherent underlying narrative. Because the forecast and the balance of risks are not generated using a macroeconomic model grounded in general equilibrium, there is no assurance that projections for GDP, inflation, and the corresponding monetary policy implications (i.e., the policy path) are internally consistent—either in direction or magnitude. Also, the potential macroeconomic and policy implications of the materialization of any of the risks in the balance of risks is absent from the analysis, at least from a quantitative perspective.

22. The previous three findings are both a consequence and a cause of forecasts that were produced over time using various general equilibrium models, but that often "did not make sense" or were not deemed reliable. In the past, forecasts generated by the DIE sometimes lacked credibility from a policy perspective, as they did not align with the intuition or the expert's judgment of key senior members of the team. Due to the tight schedules of senior management and FT leadership, these forecasts were frequently dismissed without sufficient discussion. This led to the perception that model-based forecasts were not a productive use of time, ultimately undermining the credibility of both the DIE and the models themselves. As a result, progressively less time has been devoted to using the models, further diminishing the likelihood of their effective integration into the FPAS.

23. Despite the assertion that the QPM is the official model, it is unlikely to be adopted in practice under the current conditions. Both the models used at the DIE and the QPM have lost credibility with the Chief Economist, as well as with other senior members of the FT, including the Director and senior officials from the DAMP. The expectation that the DIE should address this issue on its own is unlikely to yield the desired long-term results. In fact, the output from the models is no longer even discussed with the EC, a practice that was common in the past.

24. Regulation alone—such as the new FT bylaw—is unlikely to be sufficient to ensure a coherent and reliable forecast from the QPM. Although BANGUAT had already established an FT

bylaw (*Acuerdo General Número 101–2020*) prior to the new one, the longstanding issues with forecasts generated by general equilibrium models have not been resolved. This is because the bylaw does not guarantee the level of coordination and engagement required across the different teams. Meetings of the technical committee and the FT are too infrequent, lack the necessary structure, and do not ensure the participation of key personnel from the DAMP and them DEM. Without the active involvement of both the DAMP and the DEM in the production of the QPM forecast, the perception that the models are opaque and unreliable "black boxes" is unlikely to change.

25. From the perspective of the Chief Economist and the FT, having competing forecasts is problematic. The lack of credibility in forecasts produced using the QPM—or any macroeconomic model—is not necessarily due to flaws in the models themselves, but rather to their inadequate use and the insufficient participation of all parts of the FT in the process. This puts the Chief Economist in a difficult position, as they are expected to explain and defend forecasts that are neither well-understood nor easy to justify. This not only complicates their role but also risks undermining their credibility with the EC and, more importantly, with the MB. As a result, it is natural that the Chief Economist typically relies on the forecast and balance of risks produced by the DAMP when communicating with decision-makers.

26. Senior management within the FT faces numerous obligations and stiff time constraints. This is especially true for the Chief Economist, but also for the Director of DAMP. Their responsibilities outside the forecasting process limit their ability to coordinate the FT effectively in practice. Under current conditions, these time constraints are unlikely to be relaxed.

27. Given these time constraints, FT senior management has delegated attendance at certain FT meetings to more junior team members. As a result, the first layer of the FT often does not participate in meetings with the FT's Technical Committee. This significantly lowers the likelihood of producing a satisfactory forecast using the QPM. There are at least two key reasons for this. First, developing a forecast requires making important judgments and difficult decisions that depend on the insight and approval of the most senior economists. Second, without the involvement of the most experienced team members—particularly those responsible for drafting the MPR and formulating policy recommendations for the EC and the MB—the macro forecast generated with the QPM is unlikely to gain traction or be effectively used.

28. The FT has an overly hierarchical structure, which can result in the exclusion of certain experts from discussions and the forecast development process. The FT's Technical Committee formally includes only select members from the different teams, while other senior staff are left to decide whether or not to attend meetings. This arrangement limits the participation of key individuals—such as sectoral experts and senior economists—whose insights could significantly enhance the Committee's ability, and that of the QPM team, to construct a compelling macroeconomic narrative grounded in a thorough understanding of the data, shocks, and their implications.

29. The FT and the Technical Committee lack sufficient interaction to produce a convincing forecast using the QPM. Currently, they meet only once a month—typically the day before the forecast is due. This meeting primarily focuses on discussing the QPM's output, making it an "output" meeting. However, the Technical Committee has too few "input" meetings to produce a well-developed projection. The limited preparation time and the brief interval between the "output" meeting and the subsequent

meeting with the Chief Economist further reduce the likelihood of producing a compelling macroeconomic narrative that the Chief Economist can present to the EC.

30. The FT needs a better understanding of the types of interactions required to produce a unified forecast that can become BANGUAT's official projection. As mentioned previously, the DIE receives data inputs from the DEM and the DAMP. However, what is most crucial is the need for in-depth discussions about these inputs, the nature of the shocks, and the overall plausibility and economic coherence of the forecast. Currently, these discussions are either absent or lack the necessary depth and scope to ensure a well-grounded and coherent forecast.

31. At times, the EC or the FT do not engage in a thorough discussion of the forecast when there are no significant changes in observed variables or projected outcomes. This weakens the discipline of regularly using the QPM and increases the risk of overlooking the potential impact of emerging risks or recent events. In some cases, it should actually raise questions when the outlook remains unchanged despite new developments. While this may be less critical for annual forecasts, quarterly projections—such as those generated by the QPM—require more frequent and in-depth discussions that cannot be easily bypassed.

32. The FT's meeting calendar is too open and lacks sufficient structure. The FT bylaw (*Reglamento EP*) mandates only one meeting per month. While this may suffice as a general guideline, in practice it leaves too much discretion to the DIE Director to determine when meetings take place. As a result, the forecasting process becomes overly dependent on the current context or circumstances, rather than following a consistent and disciplined schedule.

33. The MPR's impact is weakened by delayed timing, lack of a model-based forecast, and limited focus on a coherent domestic outlook:

i. The MPR does not have a fixed rule for the time of its publication.

ii. The MPR is published with a delay relative to the MB's decision. This reduces the relevance of the MPR as a communication tool that explains in detail how the central bank is understanding the economic outlook and the implications for MP. In the presence of shocks or new data, the MPR may end up outdated at the time of publication.

iii. The MPR has too much weigh on observed data and little weight on the forecast. This, and the fact that the forecast is not produced with a macro model such as the QPM, makes it hard to see and understand a comprehensive, coherent macro story.

iv. International developments have too much weight in the MPR. About 50 percent of the MPR is about other countries, and there is no linkage between those developments and the forecast for the Guatemalan economy. There is, however, a conceptual link between international developments and risks and the inflation balance of risks.

v. In the MPR there are variables that are shown and discussed such as corn and wheat prices that in general do not affect the forecast. They are there due to historical reasons. This excess of potentially

irrelevant information is in part the result of not having a unified framework, such as the QPM, for producing the macro-projections.

C. Recommendations

34. Given the limited availability of the Chief Economist, BANGUAT requires a dedicated individual to coordinate the three teams involved in producing the forecast. BANGUAT, should appoint a senior-level FT Coordinator with delegated authority to align forecast assumptions, ensure cross-departmental consistency, and oversee the timely delivery of outputs. This person should be primarily focused on the forecasting process and possess the ability to communicate effectively across teams: They should have strong knowledge of the Guatemalan economy, understanding of the models used by the DIE as well as the data and empirical tools employed by the DAMP and the DEM. The role demands sufficient seniority to command credibility with both the team and the Chief Economist, strong listening skills—including the ability to hear and consider inputs from all members of the team—, the capacity to build consensus, and the authority to make difficult decisions when consensus cannot be reached or uncertainty is particularly high. Ideally, the role should be formally integrated into BANGUAT's organizational structure and evaluated based on measurable coordination outcomes. The best option is to create a new position at a level between the Chief Economist and department directors, such as a Deputy Manager (*Subgerente*). Another possibility is to formally assign this mandate to a senior staff member within the DAMP, ideally the Director. The FT bylaw already moves in this direction by designating the Director of DAMP as the "*Primer Subcoordinador*"; however, if this approach is taken, the mandate should be made explicit to ensure the necessary authority and respect across the entire FT. More broadly, the coordination of the FT and the Technical Committee should not fall to the Director of the DIE.

35. The entire process—preparing the forecast, presenting it along with the balance of risks to the Chief Economist and the EC, and ultimately publishing the MPR—should be coordinated by the DAMP. While the FT bylaw appropriately assigns coordination responsibility to the Chief Economist, in practice, this role would be better fulfilled by DAMP, which is ultimately responsible for integrating all elements of the forecast and the balance of risks into the policy discussion, the policy recommendation, and the MPR. Assigning this role to the DAMP would also better align its incentives and workload with those of the DIE and ensure close collaboration between the two departments in producing the forecast. The role of the Chief Economist and or the Deputy Manager (see previous recommendation) should instead be to guide the forecast at a conceptual level and to serve as both a referee and an interlocutor—ensuring analytical soundness, challenging assumptions when necessary, and fostering a productive dialogue throughout the forecasting process.

36. The FT should establish a team to organize the workflow, ensure forecast integrity, and maintain coherence across the forecast, balance of risks, policy advice, and the MPR. This team could be formed as a new unit (*Sección* as they are named in BANGUAT's departmental division) located within the DAMP, as outlined in the recommendation in paragraph 69. Its responsibilities would include systematically setting meeting agendas, taking meeting minutes, organizing written reports, ensuring the coherence of the MPR, creating a shared database for all FT members, and conducting an annual internal evaluation of both the forecast and the process to identify opportunities for continuous improvement.

37. The structure and requirements of the QPM and the MPR should guide the work of the DAMP's units (*secciones*). In other words, the work of these units must center on providing the essential inputs for the QPM and contributing relevant content to the macroeconomic narrative and the formulation of MP. These inputs extend beyond simple data transmission to the DIE; they involve thorough discussions of the underlying shocks driving the data, the interpretation of that data, and the broader macroeconomic story (see recommendation in paragraph 69).

38. The FT should agree on and establish a meeting calendar for collaboratively building the forecast, which must be followed systematically and strictly, guided by the inputs required by the QPM. Coordination of the agenda should be the responsibility of the new unit within the DAMP (see paragraphs 36 and 69.) Each meeting should involve discussions of the various inputs that will contribute to the QPM. In setting the agenda, FT must consider the schedules of the MB and EC meetings for policy rate decisions, as well as the timing of new data releases. The agenda should be planned by working backward from the MB and EC meetings to ensure there is sufficient time to prepare a coherent, well-informed, and thoroughly discussed forecast.

39. The structure of the QPM and the specific characteristics of the Guatemalan economy will determine the required set of meetings. Ultimately, the FT must identify the necessary inputs for the QPM—the key components of the forecast. As an initial framework, the sequence of meetings and their focus areas could be as follows:

i. External Assumptions (provided by Unit 1 of the DAMP);

ii. GDP Nowcast and Quarterly Projection (provided by the DEM and Unit 3 of the DAMP);

iii. Discussion on Initial Conditions, Trends, and Shocks (with measures such as the GDP gap and neutral rate from the DAMP, and the DIE using the QPM model to analyze shocks);

iv. Short-Term Inflation Forecast (provided by Unit 2 of the DAMP);

v. Model Run *(Corrimiento)* – This could be a set of meetings focused on a deep discussion of the model's forecast, the nature of the shocks introduced for the conditioning assumptions, and the overarching macroeconomic story. These meetings would also define the key judgments of the forecast;

vi. Baseline Agreement – A subsequent meeting to finalize and agree on the baseline scenario;

vii. Balance of Risks and Alternative Scenarios–A meeting to devise a plan for how to build the risk and alternative scenarios in the QPM, deciding which risks should be illustrated and quantified using the model, and determining how these scenarios will be incorporated into the forecast;

viii. Review of Risk Scenarios – A subsequent meeting to review the risk scenarios constructed using the QPM, ensuring they align with the overall macroeconomic outlook and policy considerations;

ix. Balance of Risks and Fan Chart Development – A final meeting to construct the fan chart around the QPM forecast and discuss the balance of risks.

40. BANGUAT should review the necessity of the Technical Committee and consider its potential elimination. As noted in the assessment, the "Comité Técnico" introduces an additional layer of bureaucracy that appears to have both overly delegated responsibilities and, at times, excluded key participants. Ultimately, the FT requires the active involvement of the senior coordinator (the Deputy Manager, as outlined in recommendation paragraph 34), senior officials from the DAMP, and relevant experts from the team. This ensures that the macroeconomic story behind the data is fully understood and appropriately reflected in the QPM through the correct shocks, ultimately leading to the production of a sound and credible forecast. The establishment of a well-structured agenda centered around the necessary QPM inputs (see recommendations in paragraphs 38 and 39) and the participation of the right people in each meeting should be sufficient to construct a robust forecast using the QPM.

41. The FT should use the QPM to strengthen policy recommendations by incorporating counterfactual scenarios that reflect the risks identified in the balance of risks. This practice would enhance the overall robustness and transparency of the forecasting process, while also equipping the EC and the MB with more insights to support monetary policy decisions.

42. The FT should systematically document the key judgments and assumptions made in the construction of each forecast, in line with best practices. This will enable BANGUAT to build a consistent forecasting history and provide clear explanations for any changes between forecasts. Additionally, it will support the team's evaluation process. Furthermore, all teams involved in producing forecasts should maintain detailed logs of the expert judgments incorporated into their models at each stage of the forecasting process. This documentation process should be coordinated and overseen by the newly proposed unit of the DAMP (see recommendations in paragraphs 36 and 69), ensuring consistency and accountability throughout the forecasting process.

43. BANGUAT—particularly the FT, but also the EC to the extent possible—should consistently follow a rigorous forecasting process. In practice, this implies that all meetings in the agenda of the forecast should always take place. This discipline should be maintained even in periods of macroeconomic stability, such as those that typically characterize the Guatemalan economy, and when changes between forecast rounds appear minimal. Adhering to this practice helps identify and communicate potential risks, supports the continuous improvement of forecasting capabilities, and prevents complacency in policy discussions. This also will increase the likelihood that the changes in the FPAS that BANGUAT is seeking are ultimately implemented.

44. The FPAS should be organized around the preparation of the MPR, which should convey the core macroeconomic narrative of the forecast and serve as a key reference for markets, analysts, and the public. All departments (DAMP, DEM, DIE) should contribute to the writing of the MPR, ensuring that it presents a unified forecast, guided by the QPM, and reflects the insights derived from the in-depth discussions that shaped the final outcome.

45. The MPR should be published promptly after the MB decision meeting, adopting a more forward-looking perspective and a prospective tone. Greater emphasis should be placed on the macroeconomic story and the forecast, rather than on past developments. The international context should be streamlined to include only what is relevant for the forecast, while the domestic economy section should focus on the forecast itself, presenting a coherent narrative that connects the projections

for economic activity, inflation, and the balance of risks, along with their implications for MP. A separate section could be dedicated to the description of known facts.

46. BANGUAT should begin implementing the recommendations of this report without delay. Reforming the FPAS requires strong institutional commitment and alignment at both the senior leadership and staff levels. This alignment currently exists, creating favorable conditions for change. However, the likelihood of successfully implementing reforms may diminish over time due to potential changes in management or the comfort derived from the technical staff's strong track record, which could reinforce the status quo. While this track record is commendable, it does not guarantee future forecasting success—especially without the improvements to the FPAS recommended in this report. Moreover, as the changes proposed by this mission are primarily "supply driven"—originating ultimately from the initiative of the technical staff—a lack of demand or urgency from the Executive Committee or the MB could further slow or stall their implementation. Prompt action is therefore essential to sustain momentum and institutional commitment.

II. Use of Models in the Forecasting Process and Incorporating the QPM

A. Status Quo

47. The three departments most directly involved in the FPAS—the DAMP, the DIE, and the DEM—each use distinct forecasting models, all of which are well-suited for their respective roles in the forecasting process. Each department has a suite of models and tools at its disposal to produce its forecasts, with the outputs from these tools being combined to generate forecasts for each variable, such as inflation and GDP, that are internally consistent. In general, no single tool is relied upon to produce a forecast for any given variable; instead, different models are used in conjunction with expert judgment to arrive at a final forecast figure deemed appropriate. Furthermore, each team is highly skilled in the technical methods they employ, and the tools used are largely comparable to those of other central banks. However, since macroeconomic models are not utilized in the production of the official forecast, there is no guarantee of the quantitative or theoretical consistency and coherence of the final forecast.

48. The DAMP is responsible for producing inflation forecasts, as well as for developing, calculating, and publishing indicators to assess the stance of monetary policy and financial conditions. These forecasts cover the calendar year, as well as monthly and quarterly intervals. To generate these forecasts, the DAMP employs a variety of models, including 'artisan models,' Vector Autoregression (VARs), and Autoregressive Integrated Moving Average (ARIMA) models. Some models take a supply-side approach, while others focus on demand-side factors. Beyond model-based outputs, the DAMP incorporates high-frequency data, such as bulk prices ("precios mayoristas"), and draws on the expert judgment of team members with in-depth sectoral knowledge and experience in inflation dynamics to finalize the forecast. These forecasting tools are particularly useful for short-term projections, which could be highly valuable for the QPM under a new, revised FPAS. Additionally, the index of monetary conditions and the monetary policy stance measure can be useful inputs for the QPM.

49. The DEM is responsible for producing GDP forecasts across different horizons and frequencies, leveraging its expertise in measuring GDP and compiling national accounts. For official purposes, the GDP forecast is made on an annual basis for a calendar year. This forecast does not rely on econometric models; instead, it is primarily based on the data and information used to construct the national accounts, along with expert judgment. From a supply-side perspective, the forecast is developed by sector at the CIIU level and then aggregated up. To inform this forecast, the DEM receives inputs (such as data, forecasts, and analyses) from the DAMP. Additionally, the DEM generates a quarterly nowcast and forecast using statistical models, such as ARIMA, in combination with expert judgment. These quarterly projections are then sent to the DIE as inputs for the QPM's run. However, there is limited discussion within the FT regarding these quarterly forecasts.

50. The DIE is responsible for producing macroeconomic forecasts and, occasionally, alternative or risk scenarios using the QPM. Significant progress has been made in developing and employing the QPM, particularly with the support of the 2024 TA mission. This progress in utilizing the

model for forecasting is considerable. Furthermore, the DIE has developed alternative models, such as Structural Vector Autoregression (SVAR), which may provide a better empirical fit and deeper insights into certain aspects of Guatemala's economy. These models also help identify potential weaknesses and areas for improvement in the QPM. To produce forecasts with the QPM, the DIE constructs its own database from both external and internal sources and receives inputs from the DAMP and the DEM. However, discussions surrounding these inputs, the underlying shocks, and their macroeconomic implications remain limited. Although alternative scenarios have occasionally been produced using the QPM, they have not generated significant discussion or influenced the balance of risks and policy recommendations. On the technical side, the software used is industry-standard (IRIS, Matlab, Dynare), and the models are meticulously maintained, with versions carefully tracked to ensure the replicability of different runs and avoid errors from using outdated, wrong model versions.

B. Assessment

Strengths

51. Three important elements create a solid foundation for integrating the QPM into BANGUAT's forecasting process. First, the QPM, developed with TA from the IMF, is regarded by the DIE team as a significant improvement over previous models used at BANGUAT. Second, the different teams already produce all the necessary inputs that a complete forecast using the QPM would require. Third, the staff's systematic estimation and monitoring of unobservable variables such as the output gap, the neutral rate, and monetary financial conditions, which are key to determining the state of the economy, ensure that the model can be effectively integrated into the forecasting process.

52. BANGUAT's teams, with their deep technical expertise and extensive knowledge of the Guatemalan economy, are well-positioned to produce reliable and sensible forecasts. They use appropriate models and tools, guided by expert judgment, to create informed projections. In addition, BANGUAT's role in producing GDP data further strengthens the ability of the FT to leverage first-hand insights, enhancing their ability to better understand the dynamics of economic activity. All teams—and the DIE in particular—have the technical capacity to apply their models appropriately, including the QPM.

Gaps

53. QPM forecasts lack a fixed forecast horizon. Currently, the FT's forecast is annual, with the horizon varying depending on the time of year. Similarly, QPM forecasts currently lack a fixed horizon, with the modeling team projecting either six or eight quarters ahead at different times. This lack of consistency introduces variability in both the outputs and the communication of the forecast. Moreover, the fluctuating horizon complicates the design of MP, the analysis of the impact and persistence of shocks, and the formulation of an appropriate policy response.

54. QPM forecasts are not consistently conditioned on external assumptions over the entire forecast horizon, nor are they always informed by short-term projections derived from high-frequency models or expert's judgement. To a large extent, the forecasts produced with the QPM are "free" in the sense that they are not systematically anchored to key pieces of information. In particular, the horizon over which external variables are conditioned varies from one forecast to another. Moreover, the model often receives limited input from high-frequency data that could reflect important developments

outside the model's structure. Expert judgement is crucial not only to incorporate such data, but also to introduce shocks into the forecast that more accurately reflect the FT's understanding of the current economic environment and likely future developments.

55. Currently, models are not effectively used to produce or inform a consistent and integrated balance of risks. For example, the GDP and inflation fan charts are produced independently by the DEM and the DAMP, respectively, resulting in a disconnect between the two. Consequently, the risks reflected in the inflation forecast are not incorporated into the GDP forecast intervals, which undermines the coherence of the macroeconomic narrative. Moreover, while the discussion around the balance of risks to inflation is often rich and nuanced, there is generally little to no exploration—especially in quantitative terms—of how these risks might affect other key variables, particularly GDP growth and the policy rate. This limits the usefulness of the risk analysis in shaping a comprehensive, forward-looking perspective for policymaking and in effectively communicating and explaining policy decisions and the central bank's outlook in the MPR.

56. There is a weak linkage between the forecast or the analysis of monetary and exchange rate policy. The exchange rate plays a crucial role in the Guatemalan economy and in the conduct of MP. However, despite its importance, the connection between the two remains weak. The QPM could help integrate these aspects, which is increasingly necessary as the Guatemalan economy transitions to an IT regime with a flexible exchange rate, a move that is often officially stated. This integration could be advanced by analyzing how changes in the monetary policy rate influence the exchange rate in the absence of FX intervention; how various shocks impact both the policy rate and the exchange rate without intervention and under what conditions they would trigger intervention based on BANGUAT's pre-established parameters; and finally, how FX intervention modifies the policy rate's response to different shocks.

C. Recommendations

57. The FT should aim to produce a fixed two-year horizon quarterly forecast, in line with best practices. A consistent forecast horizon—typically eight to twelve quarters—would enhance clarity, comparability over time, and the credibility of the forecast. By establishing a fixed horizon, the FT can improve the design of monetary policy and ensure a more effective analysis of shocks and their medium-term impacts, leading to better informed policy decisions and improving communication.

58. The FT should draw on the DAMP and the DEM forecasts and expertise to help guide the QPM, at least during the initial integration into the official forecast. This approach will increase the likelihood of generating a QPM forecast with more ownership among the FT's members, while also enhancing the forecast's credibility by drawing on insights and knowledge of the DAMP and the DEM. It will also introduce a gradual transition in adopting the QPM. During the first year of the forecast horizon, a thorough discussion on the shocks used to incorporate this guidance will be crucial, and it may ultimately allow the model to "speak" for the second year of the forecast horizon.

59. The use of satellite models can also support the QPM in producing forecasts that more accurately reflect both the structural characteristics of the Guatemalan economy and its dynamics. For instance, the structural VAR models developed by the DIE can provide valuable insights

that help align the QPM-based forecast with key features of the local economic context—such as the low transmission of MP, which is likely influenced by underdeveloped credit and financial markets and a high degree of informality. Over time, this type of exercise can contribute to further adapting the QPM to the Guatemalan economy to ensure greater relevance and realism in its outputs.

60. In constructing the QPM forecast, the DIE team should strive to apply a consistent approach to conditioning across forecasting rounds. In particular, external variables—such as remittances or the Federal Reserve's policy rate—should be incorporated as conditioning assumptions over the entire forecast horizon. At present, the approach to conditioning varies across forecast iterations: in some cases, short-term inflation forecasts are used, while in others they are not; similarly, assumptions about the Federal Reserve's interest rate path are inconsistently applied. This lack of consistency makes it difficult to explain changes in the forecast over time, can undermine the coherence and credibility of the forecast, and should therefore be addressed through a more systematic and uniform methodology.

61. The FT should produce fan charts for all key forecast variables using the QPM. In the initial stages, these charts can be generated using the same techniques currently employed but applied to the forecast generated by the QPM. Over time, the FT should transition toward producing fan charts directly from the QPM itself, leveraging its general equilibrium structure to generate jointly determined distributions that reflect the internal consistency and dynamics of the model. This will allow BANGUAT to reflect and quantify the balance of risks while preserving the consistency brought by general equilibrium.

62. BANGUAT should leverage the current macroeconomic stability to incorporate the QPM into its forecasting framework. This context offers a favorable window for the timely implementation of the recommendations outlined above, enabling progress without compromising the FT's credibility with the EC or the MB.

63. BANGUAT should use the QPM to strengthen the link between the external context and the macroeconomic forecast, thereby enhancing the coherence and clarity of its narrative. To achieve this, the external assumptions used in the QPM should align with those reported in the balance of risks, the policy discussions, and the MPR. In addition, the QPM should be used to explain and quantify the transmission mechanisms of changes in external variables and their implications for the forecast, policy recommendations, and decisions.

64. The FT would greatly benefit from a peer-learning experience. This could either be implemented by participating in a forecasting exercise at another central bank or by receiving a TA mission that supports the team in constructing a forecast in real time. Such an experience would facilitate practical learning and help accelerate the implementation of the recommendations outlined above.

III. Operational Processes, Efficiency, and Infrastructure

A. Status Quo

65. Each department builds its own database, tailored to the specific requirements of its models. Each department makes sure that the data used is appropriate for the forecasting models they employ. Also, there is also strong organization of model codes and data across the different departments, which guarantees that the runs of various models are replicable, and that version control is maintained to avoid errors or inconsistencies in the modeling process.

B. Assessment

66. There seems to be significant overlap in functions within and across departments. This overlap reduces the efficiency of the forecasting process and risks undermining the coherence of the various inputs and outputs. For example, all three units (secciones) of the DAMP—International, Macro Analysis, and Inflation—monitor international developments. In parallel, although the DIE receives some inputs from the DAMP and the DEM, the QPM team independently downloads data on inflation and other key variables, including those related to the external sector—areas already covered by the DAMP.

67. There is no unified database across departments; each one maintains and manipulates its own data. This fragmented approach can lead to discrepancies in the data used across different models and forecasts. Moreover, departments exchange inputs primarily via email, which is a significant gap from best practices and increases the risk of errors and inconsistencies in a unified FPAS framework.

68. The categorization and analysis of key variables are neither consistent nor harmonized across departments. A notable example is the use of different measures of core inflation by the DAMP and the DIE—the DAMP does not accept the DIE's measure, and the DIE does not use the DAMP's measure. At times, these differing measures have produced conflicting signals, which could have led to significantly different assessments of the policy rate needed to bring inflation back to target. In a unified FPAS, both departments should agree on the core inflation measure used in models, policy documents, and communication instruments, while treating alternative measures as robustness checks or as complementary inputs—guided by experts' judgement—to help inform the policy discussion.

C. Recommendations

69. DAMP should reorganize its internal functions to reduce overlap and shift focus away from excessive emphasis on international developments. Specifically, the structure could be streamlined into four units (secciones):

- **Unit 1 (International):** Responsible for analyzing international variables.

- **Unit 2 (Inflation):** Focused on the detailed analysis of local inflation and providing short-term inflation forecasts.

- **Unit 3 (Macro analysis):** In collaboration with the DEM, this unit would be responsible for producing a nowcast and short-term growth forecasts, as well as organizing the macroeconomic narrative for the EC, the MB, and the MPR.

- **Unit 4 (Forecasting process management and evaluation):** A newly proposed unit tasked with overseeing the entire forecasting process. This unit would systematically set the meeting agenda, keep meeting minutes, organize written reports, ensure the coherence of the MPR, build a shared database for all members of the FT, and conduct an annual internal evaluation of both the forecast and the process to identify areas for continuous improvement.

This reorganization would help streamline the workflow, improve focus, and enhance the overall efficiency of the forecasting process.

70. The FT must reach a consensus on the variables to be analyzed for both the forecast and the MPR. Ultimately, the DIE must work with the inputs provided by the DAMP and the DEM. As outlined above, the DAMP uses specific methods to divide and analyze the Consumer Price Index and has its own measure of core inflation, while the DIE employs a different approach. Reaching an agreement on which measure to use for the forecast is crucial for ensuring consistency, alignment in terminology, and the usefulness of inputs from the DAMP and them DEM for the DIE and the QPM. This will also ensure that the outputs are relevant and actionable for policy advice, and that communication with policymakers and the public through the MPR and public presentations reflects these outputs.

71. The DIE should cease constructing its own data for FPAS purposes. This process consumes significant time, overlaps with the functions already carried out by DAMP, and introduces the risk of using disparate data sources and data inputs that could lead to inconsistencies in the analysis and the preparation of the forecast, the balance of risks and the MPR. This recommendation does not imply that the DIE should refrain from exploring alternative data or variables for research or FPAS purposes. However, when such data are intended for use in the FPAS, their adoption should be agreed upon and coordinated with DAMP to avoid duplication and ensure consistency.

72. The FT should establish a centralized database and discontinue the practice of sending data via email, in line with best practices. This database must be equipped with appropriate permissions for uploading and downloading data to ensure both integrity and confidentiality. It should also facilitate timely data submission by those responsible for its construction and provision. The database should be designed to record the DAMP, the DEM, and the DIE forecasts, as well as conditioning variables, enabling future replication and evaluation of the forecasting process.