



Securities and
Exchange
Commission
PHILIPPINES

MACROPRUDENTIAL POLICY STRATEGY FRAMEWORK: THE CASE OF THE PHILIPPINES

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FINANCIAL STABILITY COORDINATION COUNCIL

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1. Introduction

The pursuit of financial stability has become the *de facto* standard for financial market oversight, with many jurisdictions formally introducing a *de jure* basis. While the objective of “financial stability” is itself not new, Haldane (2017) points out that the Global Financial Crisis (GFC) instigated a “complete rethink of financial stability and [of the] policies for achieving it.” The current focus of financial stability is very specific to addressing systemic risks, introducing a new area of regulatory intervention referred to as macroprudential policy.

It is the scope and approach of macroprudential policy that differentiates it from monetary policy and banking supervision, respectively. Since the latter two policy objectives have established approaches, there is a need to communicate to a broad audience how the authorities envision the financial stability agenda, particularly the design and deployment of macroprudential policies.

This document has been prepared for that purpose.

2. Macroprudential Policy Framework

Previous documents have already outlined our thinking on financial stability, its focus, relevance, and interaction with other policy objectives.¹ We take off from these documents and augment with specific points which we have presented elsewhere to better explain particular details of the framework. Taken together, these outline the strategic and tactical elements of our approach for executing macroprudential policy.

2.1 Scoping Statement, Coverage and Policy Focus

Our focus on financial stability is premised on the significant costs to society when the financial market “fails.” This underpins the joint study (2009) by the Financial Stability Board (FSB), the International Monetary Fund (IMF) and the Bank of International settlements (BIS) which defined “systemic risk” as a disruption to at least a part of the financial system that can ultimately be adverse to the rest of the economy. This is an important starting point because it highlights two key aspects of systemic-ness: (a) there must be an expected adverse impact on the broad economy for it to qualify as systemic risk, and (b) failure of parts of the system, rather than always the whole financial system, meets the bar of “systemic,” reinforcing the notion of spillovers as well as of financial fragility.²

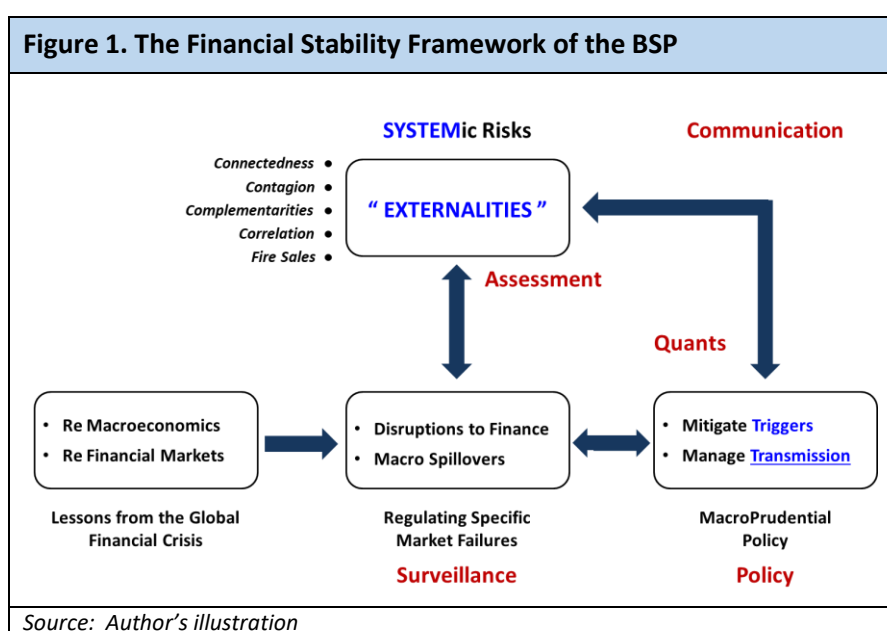
While there can be external (often surprise) shocks to the financial system, there is great interest in the risks generated by the financial system unto itself. If these risks which are generated internally can be identified in advance, the expectation is that they can be better managed with some degree of success. Of equal concern are risks across time where cyclical behaviors tend to self-reinforce, amplifying risks taken up during upturns while enhancing risk aversion during downturns.

¹ See “Systemic Risks and the New Financial Stability Agenda: Defining its Perimeter” (OSRM, 2020a) as well as “The Case for Macroprudential Policy in Good and in Not-so-Good Times: Why Financial Market Externalities Rise to the Bar of Being Systemic” (OSRM, 2020b)

² Following the works of Lagunoff and Schreft (2001) and Allen and Gale (2004).

Theory highlights the great value of a well-functioning financial system, both in terms of the flow of funds and the effective transfer of risks. In that sense, financial stability is a public good and systemic risks are the antithesis to stability. It turns out, however, that looking at the parts is not tantamount to managing the whole, particularly for a public good. There is an element of the “Tragedy of the Commons” here but the larger issue is that there are conditions (referred to in Economics as “externalities”) that can cause the costs to society to be larger than the simple sum of the evident private costs to individual entities.

In the same vein, looking across the health of individual entities would not, on its own, tell us the true state of the health of the system, precisely because connectedness, contagion, complementarities and correlations tilt the balance between the sum versus the whole. And when difficult times ensue, a race to avoid the bottom through fire sales happen, with each entity looking out for itself without concern for others. By modelling the financial market as a network of financial institutions that interact with non-financial corporations (NFCs), the point then of macroprudential policy is to mitigate the factors that can trigger systemic risks and manage the transmission channels within the system (**Figure 1**).



To this end, a Scoping Statement (**Annex A**) has been formally crafted. In it, we remind that the objective is to effectively manage risks rather than to avoid them. The risks though that concern financial stability are systemic in nature, arising specifically from the state of the network which differs from jurisdiction to jurisdiction and from one point to another point in time. This evolving network is the specific focus of macroprudential interventions. There are many concerns but the most immediate are those arising from:

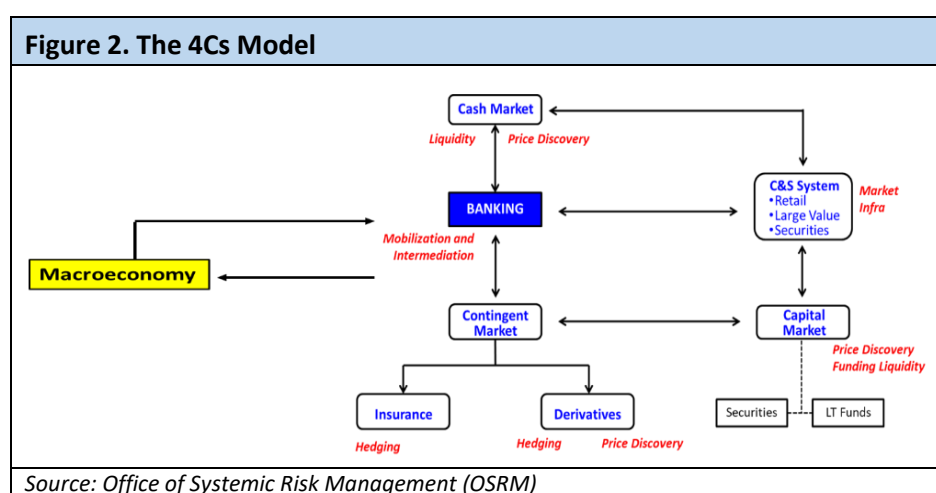
1. excessive credit growth and leverage;
2. excessive maturity mismatches and market illiquidity;
3. direct and indirect exposure concentrations; and
4. misaligned incentives with a view to reducing moral hazard i.e., on SIFIs.

These concerns hold both across market segments and over time. Cross-sectionally, we focus on where the funds may be coming from (banks and market-based finance) as well as the relationships

between business entities in a network setting. This includes the potential impact of those whose fortunes can subsequently and greatly affect the health of the collective system. Impairments to funding and concentrated exposures certainly affect the vulnerability of such a network.

Intertemporally, the concerns are not any less. Since the state of financial stability can only be estimated – unlike monetary policy where inflation and output concerns can be measured – it is critical that we take a pre-emptive stance throughout the financial cycle. This is not simply about a single path ahead but rather one of identifying all reasonable future outcomes without suggesting the most likely. And in response, we can work with the framework suggested by Osinski *et al.* (2013) (**Annex B**) or, alternatively, consider the various financial stability concerns under different situations alongside monetary policy and banking supervision (**Annex C**).

The focus on the system makes clear that financial stability covers all elements of the financial market. While the banking industry is the dominant component of this market, the policy concern is to enhance the resilience of the whole financial system to shocks. This is an essential point because, as argued in the subsequent section, the focus of macroprudential policy is not on the health of individual banks or of demand management at the macroeconomic level, even though financial stability ultimately worries about macroeconomic outcomes. Schematically, we represent the linkages in **Figure 2**.



2.2 Interaction with Other Policy Objectives

Macroprudential policy shares similarities with both monetary policy and banking supervision, just as there are many differences in practice. Scoping these complementarities is necessary for calibrating policy responses while understanding how they conflict gives the authorities a full perspective of the trade-offs that will have to be considered.

2.2.1 Interaction with Monetary Policy

Figure 2 reminds us that macroprudential policy ultimately focuses on the macroeconomy. While the continuing good health of the financial system has clear benefits, these gains are not the end goals but are instead meant to ensure that economic activity is sustained. This puts it close to the traditional objective of monetary policy.

Carney (2020) puts monetary policy and macroprudential policy side-by-side and notes that while the former uses its familiar loss function:

$$\min_{\{r_{t+i}\}_{i=0}^T} \mathcal{L}_t \equiv E_t \left\{ \sum_{i=0}^H \beta^i [(\pi_{t+i} - \pi^*)^2 + \lambda(y_{t+i} - y_{t+i}^*)^2] \right\}$$

a similar loss function can be structured for the latter:

$$\min_{\rho_t} \mathcal{L}_t \equiv E_t \left\{ \sum_{i=0}^T \beta^i [f(GaR_{t+i}) - \phi y_{t+i}] \right\}$$

The macroprudential authority, in this case, minimizes Growth-at-Risk (GaR) which relates current economic and financial market conditions to the (estimated) conditional distribution of future GDP growth.³ This is a major step forward because the authorities can be better informed of the dispersion of possible outcomes, particularly the lower-end of the distribution i.e., the worst-case scenarios.

It is worth highlighting a critical feature of the respective loss functions. For monetary policy, the loss is symmetric whether inflation is above or below target. Furthermore, changing the policy rate is expected to affect both inflation and output gaps in the same direction, i.e., the so-called “Divine Coincidence.” To the extent then that high inflation is indicative of an overheating economy, raising the policy rate should align π_{t+i} to the desired target and y_{t+i} to potential.

In contrast, the loss function faced by the macroprudential authority is not symmetric because the damage to the economy is expected to be larger at one tail (i.e., the high end of GaR) than at the other tail. That is, macroprudential interventions would offer marginal benefits when market conditions are robust but would have significant effects when the economy is otherwise. As the function $f(\cdot)$ is convex and increasing, the marginal benefit of macroprudential interventions to safeguard financial stability decreases as GaR declines while it increases at a faster rate as GaR rises. In addition, tightening financial market conditions to reduce conditional volatility from GaR will likely also be at the expense of future output, y_{t+i} . This trade-off will then depend on the balance between the convexity of the function $f(\bullet)$ versus the parameter ϕ .

We subscribe to this general approach. Our current specification of GaR has the conditional forecast for future real GDP growth dependent on money supply, market prices, a cross-border yield differential and the local returns on equity. The first two terms provide the opportunity to collaborate with monetary policy, while the last two items essentially provide a measure of investment returns, either relative to the US market or onshore.

On balance, there are well-defined distinctions between macroprudential policy and monetary policy. Although both ultimately focus on macroeconomic growth, the trade-offs in managing systemic risks on one hand and managing the price and availability of liquidity on the other hand, are different. Unlike monetary policy where the intermediate target is defined and measurable, so much still needs

³ GaR is a measure introduced by Adrian *et al.* (2016) which the IMF picked up in its October 2017 Global Financial Stability Report. Estimated using quantile regressions, GaR is essentially the far-end of the distribution of GDP growth i.e., the tail risks, with the focus on the left-tail (downside risks, typically at the 5% percentile of the distribution).

to be estimated for macroprudential policy: GaR , $f(\bullet)$, and $\emptyset$ while there are existing models for y_{t+i} . This is not trivial but they are necessary so that the authorities can consider macroprudential policy instruments, ρ_t , and how they relate to market liquidity in ways that could amplify or conflict with the path of the policy rate, r_{t+i} .

2.2.2 Interaction with Banking Supervision

As the GFC forced a reform of the banking industry, macroprudential policy instinctively interacts with banking supervision and regulation. However, there is also confusion since the major reform that overhauls the financial market architecture – the Basel III Accord – sets standards for banks via capital, liquidity, credit concentration, and leverage, among others. This leaves an impression that these are microprudential measures and yet, the reforms post-GFC are supposed to be about system-wide risks. Operationally then, there is a concern that there is too much overlap between macroprudential policy and banking supervision, and whether pursuing the agenda of the latter will suffice to address the objectives of the former.

Reconciling these two policy objectives starts from understanding that they serve different purposes. At the micro level, the failure of a bank is a direct concern of its depositors, who do not otherwise have as much information as bank management about the way their savings are being managed. Since banks are highly leveraged institutions, available capital will never be enough to pay off all deposits in the event of liquidation. This is a public welfare issue and this is why banking is a licensed activity, supported in part by financial safety nets such as deposit insurance.

At the macroprudential level, regulators are concerned with the likelihood and severity of a banking crisis. This is not just the failure of a bank but a disruption of normal banking services. The costs to society of such adversity extends beyond the loss of deposits because of spillovers to the broader economy through shifts in risk behavior, output losses, frozen liquidity, revaluation adjustments from sharp changes in yields, and possible fiscal costs due to some relief or bailout. This focus on societal costs was the underpinning of the Basel III Accord. This is evidenced by the study done by the Basel Committee on Banking Supervision (BCBS) and one that was jointly done between the BCBS and the FSB.⁴

This difference in purpose is fundamental but it leaves open the possibility that the policy instruments principally used under banking supervision – capital and liquidity – would adequately address the concerns of macroprudential policy over systemic risks. On this point, Haldane (2017) reports that various studies find that the predictive power of bank capital on the probability of a crisis is virtually indistinguishable from zero. Masera (2012) provides a critical review of the adequacy of bank capital although there are various micro-econometric studies in the advanced economies which suggest that higher bank capital reduces bank failure (Vasquez and Federico, 2015).

From an individual bank perspective then, higher capital allows more losses to be absorbed. Taken as a system, capital alone will not be sufficient because the total costs from a prolonged failure of the

⁴ The BCBS study is the celebrated Long-term Economic Impact (LEI) paper while the second is penned by the Macroeconomic Assessment Group (MAG) jointly setup by the BCBS and FSB. The LEI study was an assessment of how the proposed (at that time) Basel III standards on capital and liquidity would impact the probability of future banking crises, the resulting output losses and smoothening output fluctuations during non-crisis periods. The MAD study focused on the costs to future GDP once the world would migrate to the higher capital and liquidity standards. Note that both studies were done prior to the finalization of the Basel III Accord.

network – a crisis – includes the effect of externalities that arise from the interlinked nature of the network. This reverts to the presentation of **Figures 1 and 2** where, as is now often cited, taking the health of each bank is not tantamount to the health of the banking system. As Haldane (2014) puts it:

“... the safety of individual banks was neither a necessary nor sufficient condition for systemic stability. Not necessary because, in any well-functioning system, individual banks can and should fail. Not sufficient because, in an integrated web, the chain is only as strong as its weakest link. In focusing on individual banks, policymakers had been, to coin another English aphorism, “penny-wise but pound-foolish.” That is why systemic risk entered the lexicon. And that is why financial regulation has, in the period since, been fundamentally re-oriented towards the monitoring and management of systemic risk.”

Moving forward, we recognize that there are elements of the Basel III Accord that are meant for the banking supervisor. This includes minimum capital requirements, capital conservation buffer and licensing standards. In the same vein, the capital surcharge for systemic banks (i.e., SIBs) and the counter cyclical buffer are inherently macroprudential in nature. All other elements of the Basel III framework have both micro and macroprudential purposes (Osinski *et al.* 2013).

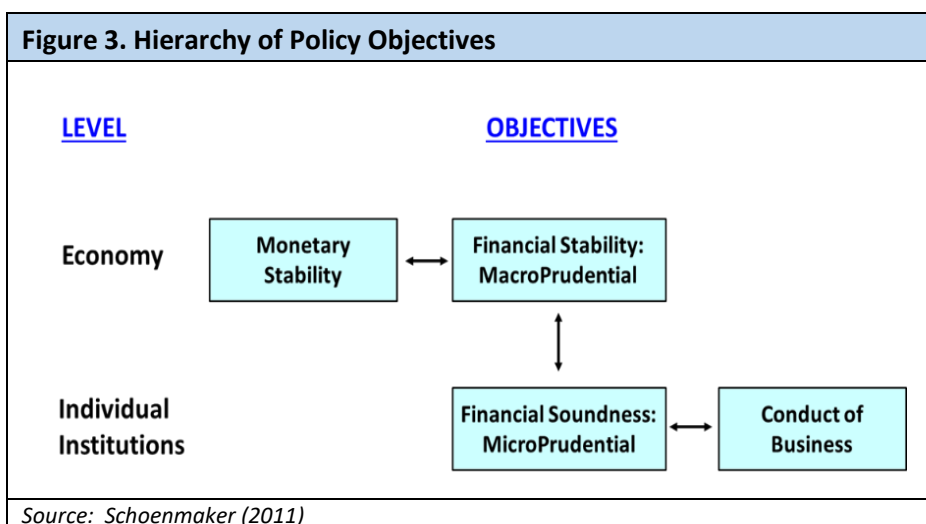
2.2.3 A Hierarchy Among Policy Objectives

The preceding discussions highlight how the interaction between policy objectives can have complementarities as well as conflicts. With the former, macroprudential policy and monetary policy are ultimately focused on the economy at large. With banking supervision, macroprudential policy shares an interest with the risk behaviors of banks, a key element in the financial market.

That said, there will be instances where the policy objectives may be more conflicted. Loosening financial market conditions may be appropriate for benign inflation but it could also build-up further systemic risks i.e., lower-for-longer. Similarly, triggering more countercyclical buffer may be reasoned relative to the cycle but banking supervision may find this to be ill-timed, with banks almost certainly commenting on the increased cost of doing the banking business.

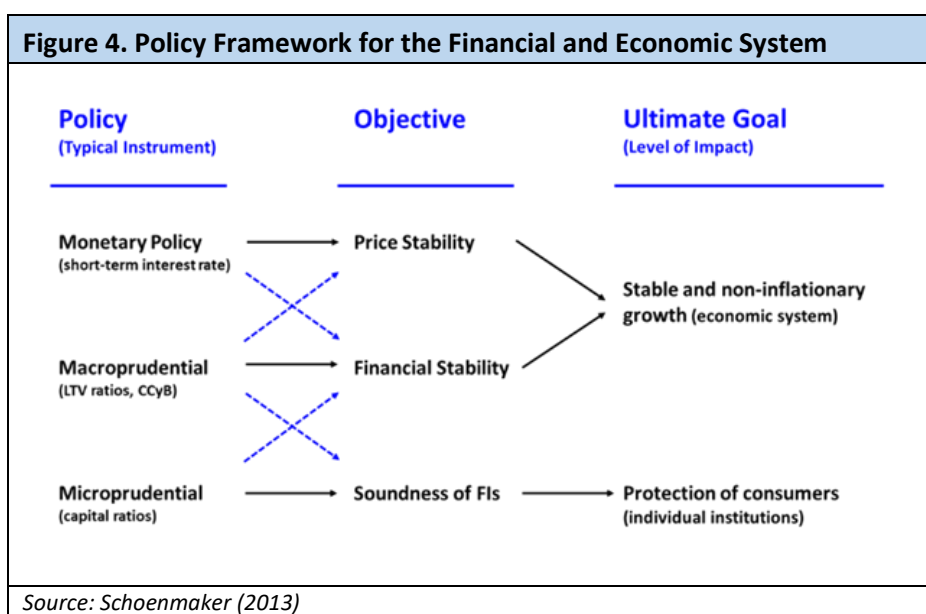
While ultimately these different considerations will be resolved by the executive judgement of the authorities, there have been several studies that argue for a hierarchy which can be used as a base case. Danielsson and Macrae (2018) argue for a vertical hierarchy where fiscal policy is on top, followed by monetary policy, macroprudential policy and then microprudential policy. Similarly, Noyer (2014), Schoenmaker and Kremers (2014), Tucker (2014), and Borio (2014b) all argue for sequencing macroprudential policy ahead of microprudential policy.

Schoenmaker (2011) presents such a lexicographic preference, dividing the policy objectives by their target. He argues (**Figure 3**) that policies that focus on the macroeconomy should be given more weight because if the economy falls then all other sectors are similarly in an adverse situation. This is not the case when micro institutions are at risk because the corresponding remedial actions do not necessarily require a restructuring of the entire market architecture.



Such hierarchy is to be understood alongside a formal acceptance that policy instruments can and do interact with one another. This is not suggesting that the same instrument, being used for multiple policy objectives, will have cross-cutting effects. Instead, **Figure 4** is a relaxation of the Tinbergen principle⁵ since a different policy instrument used for a specific objective still influences the other policy objectives.

This is a material change in mindset and a significant challenge. The authorities must now consider how a policy instrument may have unintended consequences. It also forces the authorities to always take a holistic view. This appreciation of unintended consequences within a holistic view of the market is precisely the comingling of risks and the channels of risk that macroprudential policy underscores.



⁵ The Tinbergen principle states that policymakers trying to achieve multiple economic targets need to have control over at least one policy tool for each policy target. This is because the achievement of certain economic targets precludes the achievement of others.

2.3 Surveillance, Models and Indicators⁶

A unique feature of financial stability is that our assessment of the state of stability can differ even under the same market parameters. The discerning element is the health of the system (i.e., the quality of the network) and how such state relates to the emerging market conditions. There is, however, no absolute measure of systemic risk. To move forward, we assess the state of stability by analyzing different facets of the macrofinancial market vis-à-vis the state of the network, without relying necessarily on historical values and thresholds for the market variables themselves.

While this set of tools will continue to evolve, we are currently using:

A. Cross-sectional or Point-in-Time Models

- **Connectedness/Network models.** Direct linkages are measured, and loss cascades are simulated following the methodology utilized by Espinosa-Vega and Sole (2010). Actual credit exposures and payments data between 91 banks and the top 20 conglomerates is used to simulate the impact of ‘credit-plus-funding’ shocks.⁷ A separate model is used based on the approach of Billio *et al.* (2011). This model captures the dynamic interconnectedness of the financial system and illustrates an intricate web of pairwise statistical relations between firms based on the Granger-Causal relationship of the firms’ stock returns.
- **Systemically Important Institutions.** The network model allows us to extend the analysis to identify institutions whose continuing normal operations are deemed critical to the health of the overall system. These are Systemically Important Institutions and any shock from and through them would trigger the externalities which we attempt to mitigate. We specifically note that the “systemic-ness” of these institutions is not based on the size of their balance sheet but on their interconnectedness with the rest of the system.
- **Liquidity and Maturity Mismatches.** Funding and tenor gaps are normal for banks as they take short-term but liquid liabilities to create long-term but illiquid assets. While this may be a natural concern of each bank (and thus a micro concern only), there is a systemic issue on whether banks are taking these matches excessively. In this sense, we compare funding liquidity between the banking and capital market and how price discovery in the securities market is affected by the policy rate. Since the contingent market likewise depends on the availability of longer-term assets to match its long-term liabilities, a further component of the analysis compares the capital market vis-à-vis the contingent market. The capital market is an essential anchor in our 4Cs model⁸ as we see it as a mitigant for brewing systemic risks, apart from its developmental prospects.

B. Intertemporal or Through-the-Cycle Models

- **Contagion/Correlation risks models.** We are also concerned with correlation risks as outlined by Acharya and Schaeffer (2006). Correlation risks amplify financial distress due to firms’ common exposures as well as to common but changing market influences. Losses from a firm tend to cascade across different institutions, threatening the financial system

⁶ This section lifts from OSRM (2020b).

⁷ In the reference paper, the model included only a network of banks, but from a cross-border perspective.

⁸ This refers to the proprietary model formulated by OSRM that relates the banking industry to the cash, capital and contingent markets and to the clearing and settlement infrastructure.

and the real economy. Our models that capture correlation risks are Delta Conditional Value-at-Risk (ΔCoVaR)⁹ by Adrian and Brunnermeier (2011) and Marginal Expected Shortfall (MES)¹⁰ by Acharya *et al.* (2017). We apply these to both banks and NFCs.

- **Excess credit and financial cycles.** The BIS methodology provides the baseline model for assessing the credit cycle. The financial cycle is estimated using the Baxter-King band-pass filter and the Bry-Boschan Algorithm while excessive credit is defined as the credit-to-GDP (CGDP) gap that exceeds a certain static threshold. Extensions are in the pipeline where the threshold becomes more endogenous/non-stationary, as opposed to the BIS approach. The methods by Mendoza and Terrones (2008) and Dell’Aricia *et al.* (2012) provide reference. It is in this context that the Countercyclical buffer (CCyB) may be considered.
- **Risk-on-Risk-off models.** One of the lessons from the GFC is that the interplay between credit and the real economy is much more dynamic than previously thought. This can be illustrated by the way market players reacted during the crisis, suggesting nonlinear interactions among economic variables especially during financial stress where risk aversion is likely to be heightened. Risk-on-Risk-off models measure this asymmetric behavior of individuals between “normal” times and times of financial distress.
- **Tail Risk models (e.g., Growth-at-Risk).** Apart from threshold models, models on tail risks also provide information on events that have high severity impacts but have low likelihood of occurrence. A Growth-at-Risk model has been developed to investigate downside risks to future growth.
- **Debt-to-Earnings Borrowers Test (DEBT) and Borrowers Interconnectedness Index (BII).** The DEBT-BII aims to strengthen systemic risk surveillance amidst accumulation of debt and ensure capacity of both individual and corporate borrowers to pay in periods of rising interest rates and peso depreciation. Once these models are operationalized, the provision of debt is managed against a stressed scenario for the borrower (DEBT) while the authorities get a clearer and consolidated view of NFC borrowers.

3. Institutional Arrangements

The BSP has been focusing on financial stability since mid-2009 but, arguably, the most notable developments have transpired more recently. These latest organizational developments within the BSP have reinforced the inter-agency collaboration and put the latter in a better position to undertake a more active role in policy-setting. This will always be work-in-progress for the concerned units but the bare organizational elements are in place.

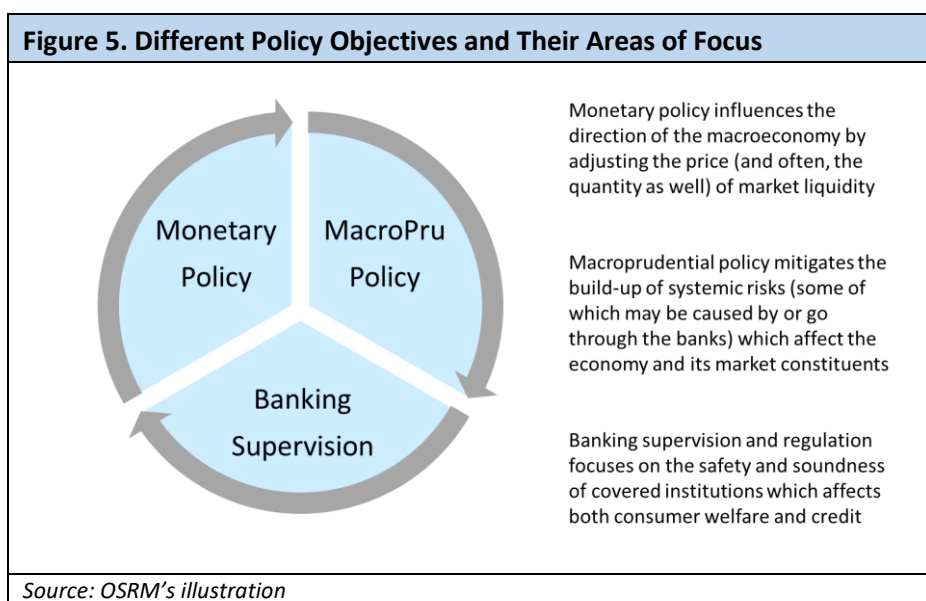
⁹ The ΔCoVaR measures the system’s expected large losses when that particular firm becomes distressed, such that it moves from its median return to its stressed return

¹⁰ The MES measures the loss in capital of an institution when the system as a whole is already at the critical point of systemic dislocation.

3.1 Republic Act (R.A.) No. 11211

In February 2019, R.A. No. 11211 (An Act Amending Republic Act No. 7653, otherwise known as the “The New Central Bank Act” and For Other Purpose), was signed into law, effectively amending the Charter of the BSP. One of the key amendments is the formal inclusion of financial stability as a mandate of the BSP. The approach recognizes that there is room for the different policy objectives to operate since their functional areas can be defined. Schematically this is presented in **Figure 5**.

We recognize that the oversight of the payments system – one of the four mandates of the BSP – should likewise be included as this is covered by R.A. No. 11127 or “The National Payment Systems Act.” We set this aside for the meantime in **Figure 5** although, strictly speaking, the conventional coverage of macroprudential policy does account for the payments system as well.



Having a clear mandate in law puts the BSP as the only financial authority in the country with financial stability formally in its Charter. This sets accountability when collaborating with other authorities as stability clearly covers all facets of the financial system and its impact on the real economy.

3.2 Financial Stability Policy Committee (FSPC)

The BSP Monetary Board approved the creation of the FSPC in January 2020 to oversee and decide on the financial stability initiatives of the BSP. The FSPC was officially convened on 26 February 2020 by the BSP Governor as its Chairman, counting on the other Monetary Board Members (MBMs), including the Secretary of Finance, as FSPC members. This gives financial stability the most senior possible representation with a Board-level committee in the BSP.

The FSPC replaces the previous Financial Stability Committee but restructures its membership. With MBMs in lieu of senior officers as members, this addresses the possibility of “inaction bias” that has been observed elsewhere in structures where line officials would solely compose the committee. In addition, the technical staff of the FSPC is a specific unit within the BSP, ensuring focus and continuity. The FSPC meets six times a year.

3.3 Financial Stability Coordination Council (FSCC)

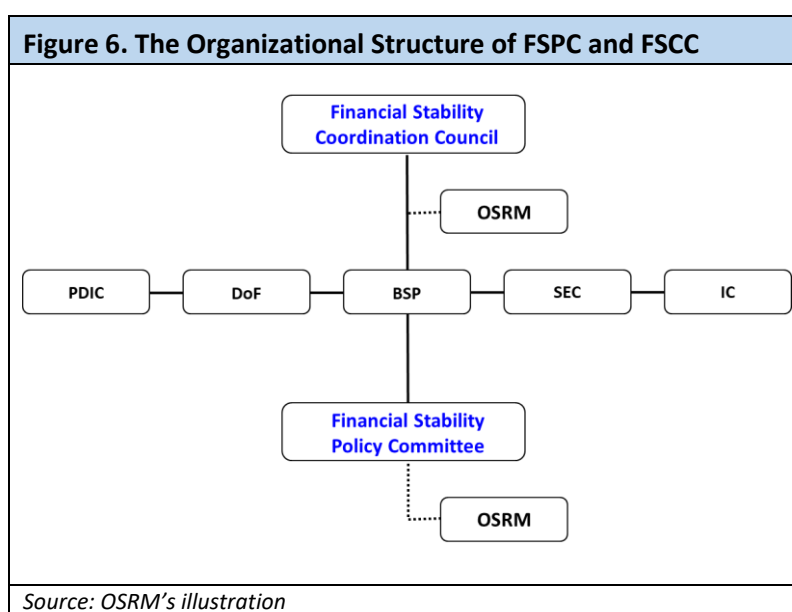
The FSCC was first convened in October 2011 as an initiative of the BSP. Apart from the convening institution, the FSCC counts as member agencies the Department of Finance (DoF), the Securities and Exchange Commission (SEC), the Insurance Commission (IC) and the Philippine Deposit Insurance Corporation (PDIC). It provides the financial authorities a distinct venue to discuss the state of stability and discuss possible macroprudential policies, where warranted. While the FSCC had been in place since 2011, it was only formalized through the signing of the Memorandum of Agreement by the member agencies in January 2014. It has been meeting on a quarterly basis.

The BSP Governor chairs the FSCC. In the Executive Committee (ExeComm), the Governor is joined by the Secretary of Finance, the Chairman of the SEC, the Insurance Commissioner, the President of the PDIC as well as one senior representative from each of these agencies as permanent members. The National Treasurer is a special non-voting member of the Executive Committee.

3.4 Office of Systemic Risk Management (OSRM)

In January 2017, the BSP created OSRM as the designated financial stability unit of the BSP. It reports directly to the Governor and as such, provides technical inputs as directed as well as coordinates the work of the FSB-Regional Consultative Group for Asia (FSB-RCGA) which the BSP Governor currently co-chairs.

OSRM's principal focus is with both the FSPC and the FSCC where it serves as the Secretariat. In this capacity, OSRM undertakes all the technical work, from formulating macro-financial models, undertaking market surveillance, continuing assessment of the state of stability, recommending policies as well as originating various information, education and communication (IEC) initiatives. However, OSRM recognizes the different focus of the respective Executive Committees and thus, appropriately manages the meeting agenda for the periodic meetings. **Figure 6** represents the interaction between the FSPC and the FSCC, as well as the role of OSRM.



OSRM also serves as the administrator of the *FSNetwork* which is an informal aggrupation of financial stability practitioners, either based in Asia or those interest in Asian economies.

4. Financial Stability Communication

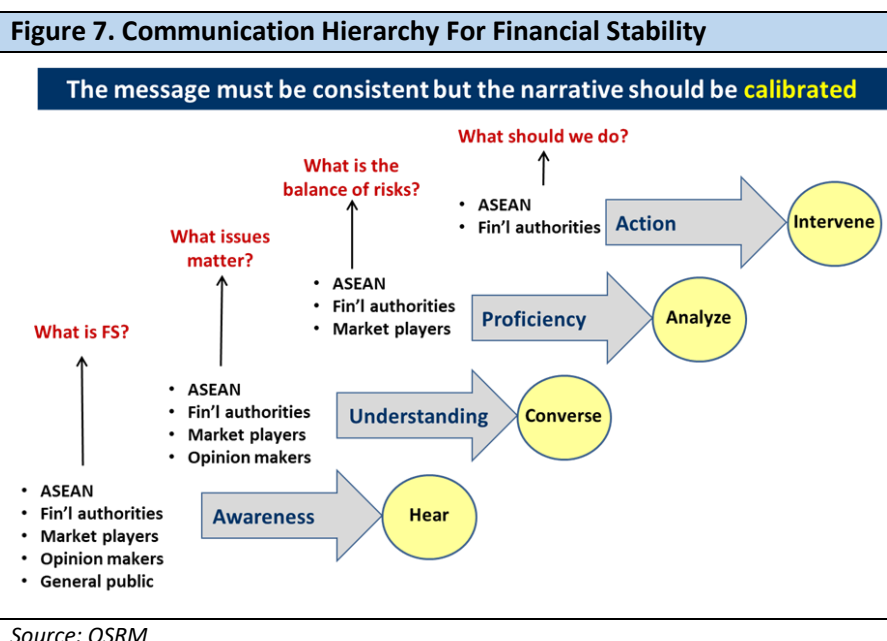
Communication is essential to policy execution and communicating financial stability issues is not an exception. However, the point of macroprudential policy interventions is to modify risk behaviors before systemic risks fully materialize. And since the state of stability can only be assessed against time-changing norms rather than measured against intermediate goals, communicating financial stability requires raising concerns even when these are not yet visibly an issue in the marketplace.

It is not surprising then that communicating macroprudential policy is difficult. As a public good, the private markets normally would neither see nor have interest in the social costs of financial instability, at least not until the adverse effects become evident.

The last point highlights the value of keeping stakeholders well-informed. This must be the case in normal times and, more so, when market disruptions take hold.

4.1 Systemic Risk Communication Under Calm Market Conditions

Stankova (2019) makes the point that communicating policy has changed significantly because the authorities must now directly engage different stakeholders – experts, markets, media, public. The more abstract nature of financial stability and the unfamiliarity with macroprudential interventions make this a challenge to market stakeholders. And as a classic Minsky issue, the prospects of future instability would not be a popular topic when markets currently look undisturbed while the point about the “systemic-ness” of risks may be seen as either misplaced or being alarmist.



These suggest that engaging more periodically would be useful. This would raise transparency while reducing the shock value when interventions are needed. To target the IEC initiatives, our approach specifically cross-references the different communication objectives against different constituents. At the least, we should raise awareness by reinforcing what financial stability is about and what we cover with macroprudential policy. There will be those who need to have a working understanding and eventually be in a position to analyze the emerging risks. For the financial authorities, they are tasked specifically with taking appropriate pre-emptive action based on their assessment of the risks. All of these cover risks that are developing onshore as well as those from offshore sources that may impact us. Such a framework is presented in Figure 7.

4.2 Systemic Risk Communication Under Stressed Conditions

As challenging as it is to communicate in good times an assessment of systemic risks and the decided macroprudential policy interventions, it is significantly much more difficult to do so when markets are already in a stressed scenario. There is heightened urgency to communicate but no longer on the baseline topic of “what is financial stability.” Instead, market constituents want to immediately hear about the balance of risks, the prognosis of the times ahead and what actions will be taken by the financial authorities to arrest the uncertainties.

While the specific market shocks may be different from crisis to crisis, the communication protocols should be unchanged by the specific of the ensuing crisis. What is required is a formal systemic risk crisis management (SRCM) framework that includes procedures for communication. This will be an inter-agency initiative and for this reason, this will be under the auspices of the FSCC.

5. Final Thoughts

This document outlines our approach for executing the financial stability agenda and the tools currently being used to conduct market surveillance and then craft various macroprudential policy interventions to specifically manage systemic risks. This is best read together with the other OSRM papers which provide more details of the foundational topics of what financial stability is, why and how does it matter, and for whom.

Now formalized as one of four mandates of the Bangko Sentral ng Pilipinas that is inscribed in law, the agenda of financial stability is essentially about guarding against financial market failure due to connectedness, contagion, complementarities, correlation, and fire sales, as externalities. Its ultimate objective is sustained economic growth and we do this acting pre-emptively so that normal functions of the financial market are not disrupted and the costs to society are minimized.

Systemic risk management and the introduction of calibrated macroprudential policies is a challenge at many levels. The risk outlook has to be pre-emptive, which requires us to raise concerns even before conventional market indicators manifest outright disruptions. The fact that financial stability has no intermediate policy target as monetary policy does necessitates getting a sense of risk behaviors that may not immediately translate into the data. The use of Growth-at-Risk is a major step forward but we still have to consider risk behaviors that change with different market conditions (i.e., that there are floors or ceilings to taking risks in the market) or why our interventions are meant to counter the prevailing market sentiments (to address the ebb and flow of the financial cycle).

All these notwithstanding, there is no question that it is a needed undertaking. There are several similarities with monetary policy and banking supervision, just as there will be instances of policy conflicts. The task is not to avoid any of these conflicts but rather to have an open discussion of the issues pertinent to each of the policy objectives. This puts the financial authorities in the best position to assess all options and better frame our macro-financial future.

ANNEX A

Scoping Statement

Risks are a natural element of the financial markets and financial consumers reap the benefits of finance only when these risks are effectively managed. Complementary to but nonetheless distinct from ensuring that financial institutions operate in a safe and sound manner, financial authorities now recognize the specific need to manage and mitigate the build-up of systemic risks. This oversight of systemic risks defines the policy agenda of Financial Stability and for this purpose, we set out below the scope of and expectations from this agenda.

Financial Stability

Financial stability is achieved when the financial system responds to the evolving market conditions and effectively addresses the varied needs of financial consumers while avoiding potential disruptions that can negatively impact the rest of the economy. The Financial Stability agenda is necessarily pre-emptive and considers cross-cutting risks that may reasonably escalate in the future. As such, the state of stability is not absolute, evolving with the changing market parameters as well as with the different choices made by varied financial consumers. For our purpose, we define financial stability as:

“Financial stability is the state when prospective systemic risks are mitigated so as to allow financial consumers, both individuals and corporate entities, to pursue viable economic goals while avoiding disruptions to the smooth functioning of the financial system that can negatively affect the rest of the economy.”

Macroprudential Policy and Analysis

Macroprudential policy executes the Financial Stability agenda by limiting system-level risks over time and across market components. It is distinct from micro oversight which assesses risks that financial institutions face on their own without regard to the financial system or to the macroeconomy. Macroprudential policy takes a holistic view by focusing on the risks created through the interaction of markets, institutions and the choices of agents while fully cognizant of the Fallacy of Composition. The objective of macroprudential analysis is to outline all reasonable future market outcomes that nurture financial stability and/or could lead to financial instability.

Systemic Risk Management (SysRM)

The financial system is more than the sum of its parts and as such, systemic risks are distinct from the risks faced individually by the agents in the system. Containing the build-up of systemic risks within prudent levels is the underlying objective of the Financial Stability agenda as managed through macroprudential policy interventions. We recognize that systemic risks are inherent to financial markets and can arise from shocks **to** the financial system as well as shocks **by** the financial system. Systemic Risk management is meant to:

1. increase the resilience of the financial system from external shocks;
2. contain the build-up of vulnerabilities over time;
3. control vulnerabilities arising from interlinkages within the financial system; and
4. manage contagion risk from intermediaries that may be “too interconnected to fail.”

Which allows us to specifically focus on:

1. excessive credit growth and leverage;
2. excessive maturity mismatches and market illiquidity;
3. direct and indirect exposure concentrations; and
4. misaligned incentives with a view to reducing moral hazard i.e., on SIFIs.

ANNEX B

Financial Cycle and Stylized Policy Reactions

Part of the Cycle	Microprudential Objective and Actions	Macroprudential Objective and Actions
Boom Strong credit and asset price growth, higher risks (but seems contained), high returns, over optimism, and weakening underwriting standards. Expansive leveraging.	<i>No need to intervene (banks are highly profitable and can replenish capital and liquidity if needed).</i> Intervention in underwriting standards to probe the more marginal and “frothy” deals would be very desirable.	<i>Address causes of systemic risk, correcting excessive imbalances and/or strengthen financial system resilience.</i> Build up strong countercyclical capital and liquidity buffers.
Bust type-I (resulting in no crisis) Slowdown in credit growth, stable or falling asset prices, lower returns, no confidence lost.	<i>Preserve stability of financial institutions.</i> Stabilize (or increase selectively) capital and liquidity <i>ratios</i> ; some restrictions on dividends, more scrutiny.	<i>Avoid serious deleveraging</i> Release countercyclical capital and liquidity buffers built.
Bust type-II (resulting in crisis) Deleveraging, substantial fall in asset prices due to fire sales, substantial financial losses (SIC), confidence lost.	<i>Regain confidence in institutions.</i> Increase capital and liquidity ratios because the minimum was wrong compared to risk, extensive scrutiny, and possible forbearance.	<i>Regain confidence in financial system and avoid deleveraging.</i> Decrease capital and liquidity buffers—if they are deemed enough—or increase them if they are the source of lack of confidence.
Recovery Cautious re-leveraging, Moderate credit and asset price growth.	Maintain capital and liquidity ratios rebuild during crisis or increase if needed.	No need to intervene.

Source: Osinski et al. (2013)

ANNEX C
Surveillance and Monitoring Issues Under Different Market Conditions

Monetary Policy	Banking Supervision	Financial Stability Concerns and Underlying Externalities	Surveillance and Monitoring Issues
Inflation/Growth deviating from long-run target	Safety and Soundness of FIs	Structure of the Market and Risk Behavior of Agents (Over Time and Across Markets/Agents)	
X	X	• <i>Structural complementarities</i> • <i>Contagion</i> • <i>Connectedness</i> • <i>Correlation</i>	• Minsky/Vercelli • Macro Stress Tests • FMI Stress Tests • Household Debt • Cross-border Debt • Securities financing • Collateral chains • Lower-for-longer effects • Non-bank financial institutions and NFCs • Capital flows • Asset price inflation • Resilience to shocks
✓ (Deviations from the projected path cause a change in the policy rate)	X	• <i>Structural complementarities</i> • <i>Contagion</i> • <i>Connectedness</i> • <i>Correlation</i>	• Risk-taking channel • Debt Service Burden • Asymmetric risk behaviors
X	✓ (Some banks face liquidity and/or capital shortfalls)	• <i>Structural complementarities</i> • <i>Contagion</i> • <i>Connectedness</i> • <i>Correlation</i> • <i>Fire Sales</i>	• Spillovers/Contagion • Impact of FIs and NFCs which are “important” to the system • Funding/Price liquidity
✓ (Deviations from the projected path cause a change in the policy rate)	✓ (Some banks face liquidity and/or capital shortfalls)	• <i>Structural complementarities</i> • <i>Contagion</i> • <i>Connectedness</i> • <i>Correlation</i> • <i>Fire Sales</i>	• Systemic Risk Crisis Management Framework

Source: OSRM (2020b)



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