The Treasury

Macro-prudential Policy Memorandum of Understanding Information Release

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Release Document

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[1] 9(2)(a) - to protect the privacy of natural persons, including deceased people

[2] 9(2)(f)(iv) - to maintain the current constitutional conventions protecting the confidentiality of advice tendered by ministers and officials

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In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) of the Official Information Act.

Forum Discussion Note
Institutional arrangements for a macroprudential policy framework

This note summarizes the key issues discussed in the background paper[1].

1. Purpose of the Forum

The purpose of the Forum is to help form a "One Treasury View" on appropriate institutional arrangements for the use of macroprudential policies in New Zealand.

The Reserve Bank has developed a policy framework that it intends to implement this year. Treasury, in its macroeconomic framework ownership role is responsible for the establishment of institutional governance and accountability arrangements for the use of these policies. The key problems and judgements that we face are:

- What are the best institutional arrangements that support high quality decision making? How can we ensure that the process of decision making is well governed, and that international best practices have been best adopted in the New Zealand context?;
- As part of these arrangements, to what extent should Treasury be involved on an *ongoing* basis?; and
- [2]

Our work covers a high level of operational detail, but we arrive at four broad conclusions on optimal institutional arrangements that we seek the forum's views on:

- The Reserve Bank should lead the implementation of macroprudential policies, but with appropriate institutional governance and accountability arrangements that are robust and adaptable to evolving best practices;
- A high degree of operational independence for the Reserve Bank is important. At the same time, greater transparency and accountability will ensure higher quality decision making;
- The ongoing involvement of Treasury is desirable as (i) the Crown faces large externalities arising from failure to mitigate systemic risk and (ii) in the future, macroprudential tools could include taxes and/or other fiscal/regulatory levers. Any Treasury role, however, should not compromise the operational independence of the Reserve Bank; and
- [2]

2. What is macroprudential policy?

The aim of macroprudential policy is to minimise risks to the financial system as a whole and the wider economy from the build-up of financial imbalances (as opposed to microprudential policy, which aims to minimise risks from individual institutional failure).

[1] The background paper is attached to the end of this document.

The adoption of macroprudential policies has been one of the key international responses to the global financial crisis. A variety of tools can be used to implement macroprudential policies:

- **Prudential tools** (e.g. countercyclical capital buffers, leverage restrictions);
- **Fiscal tools** (e.g. financial levies/taxes, stamp duties); and
- **Regulatory restrictions** (e.g. limits on sale of assets/liabilities, capital controls).

These tools, when effective, change the incentives for financial institutions to take risks.

Macroprudential policies are different from monetary, microprudential and resolution policies[2]. Each of these policies however, has an impact on, and is affected by, macroprudential policies. For this reason, there is broad international consensus[3] that these policies require specific institutional arrangements.

The development of macroprudential policies is a recent international development. They are still largely untested[4], unlikely to be used here in the immediate horizon[5], and international best practices are still emerging. What we do know is that the build-up of financial imbalances creates systemic risks to the economy. Mitigating these risks through the use of macroprudential policies would help promote financial and economic stability. This, however, creates two problems:

- The timing around when to use and withdraw macroprudential tools is important to their effectiveness. However, an assessment of macroprudential conditions is technically and analytically demanding, and there is often a need to consider a range of information and views before reaching a decision; and

- Using, and/or failing to use, macroprudential tools creates spill-over effects that affect the wider economy and the level of risk to the Crown.

For these reasons, we believe it is important to establish clear institutional and governance arrangements around the use of these policies.

3. Roles, responsibilities and previous work

The Reserve Bank, through its mandate to safeguard the soundness and efficiency of the financial system, has led the technical development of the policy framework[6]. This includes the selection of tools, investments in analytical capability, and the internal organisational changes required to support the policy framework.

The Treasury has two key roles, related to its interest and expertise in the design of institutional arrangements. First, it is responsible for the overall macroeconomic framework. Macroprudential policies are an important part of this framework, and we have a clear interest in ensuring that the objectives of these policies support the broader macroeconomic framework. In addition, Treasury has a responsibility to ensure

[2] Resolution tools are used to deal with financial crisis or failure on the day it occurs. Tools in New Zealand include the Open Banking Resolution, government recapitalisation, or liquidation.
[3] The IMF, FSB, and EU have all recommended the creation of a separate macroprudential policy framework to deal with systemic financial sector risk.
[4] Although some Asian countries have been using similar tools for macro-stabilisation objectives (e.g. LVR restrictions, capital controls).
[5] Macroprudential tools would be used during periods of credit booms. There are currently no signs of a large credit boom emerging in New Zealand
[6] Spencer (2010) summarises the Reserve Bank's thinking in this area.

that institutional arrangements appropriately reflect Ministers' views and interests where possible.[7]

In addition, Ministers have recently expressed a particular interest in better understanding macroprudential policy objectives and tools. They have expressed some concern about how these policies would be used in practice, and what checks and balances would be available to government.

We have been monitoring the development of macroprudential policies for several years. Our previous work concluded that:

- Treasury should focus on establishing transparent and accountable institutional arrangements; and
- There was not a strong case for or against lifting the existing restriction on the use of macroprudential tools for price stability purposes[8].

In their Briefing to the Incoming Minister, the Reserve Bank stated its intention to implement a macroprudential policy framework in 2012/13. In response, and as part of Treasury's broader financial stability work, we have been looking into optimal institutional, governance, and accountability arrangements for the use of macroprudential policies. The Financial Stability Key Initiative commits Treasury (in consultation with the Reserve Bank) to setting out final arrangements for macroprudential policies by the end of the year.

4. Our approach to evaluating possible models

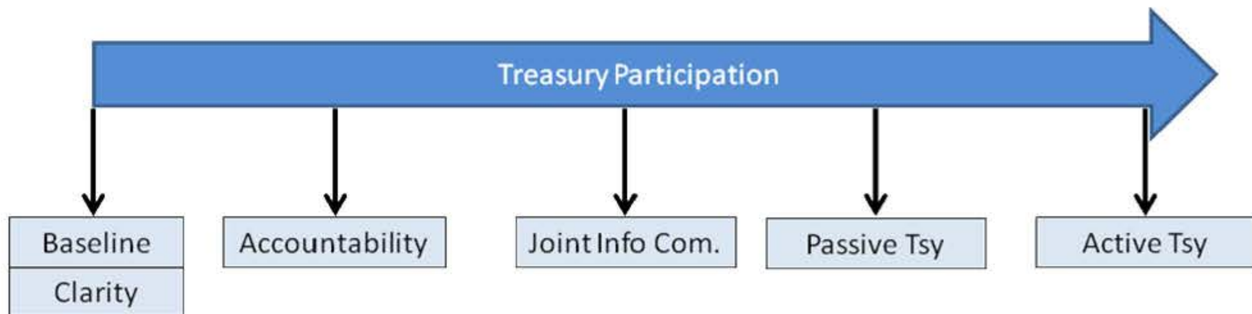
In order to assess possible institutional governance and accountability arrangements against we developed four evaluation criteria:

i. Supports high quality decision making;
ii. Allows for politically independent decision making;
iii. Creates an enduring framework; and
iv. Encourages coordination with other policies.

Using these criteria, we developed and evaluated five institutional models (Baseline, Clarity, Accountability, Passive Treasury, and Active Treasury) and two additional optional measures that could be combined with any of the five models (Joint Information Committee and Amending the RB Act). These models and options offer varying levels of accountability and Treasury participation.

The following diagrams show how the models vary by levels of accountability and ongoing Treasury participation.

[7] The background paper discusses goal vs. operational independence.
[8] Link to previous forum paper: (2121835)



The table below presents a summary of our evaluation:

Criteria Model	High Quality Decisions	Political independence	Enduring framework	Encourages coordination
Models				
Baseline	Low	High	Medium	Low
Clarity	Medium	High	Medium	Low
Accountability	Medium	High	Medium	Low
Passive Treasury	High	Medium	Medium	High
Active Treasury	High	Low	Medium	High
Additional Options				
Amend Act	Medium	High	Medium	High
Joint Information Committee	High	Medium	Medium	High

5. What do we agree on?

We have circulated the background paper extensively across the Macro portfolio for comment and consultation. There is broad consensus in the Macro Portfolio on the following issues:

i. **Greater accountability and external scrutiny (clarity/accountability models).** Using or failing to use macroprudential policies has spill over effects to the wider economy. Given these risks, there is a need for greater accountability and external scrutiny of the decision making process, separate from existing arrangements relating to financial stability.

ii. **Operational independence.** The process of decision making should be independent from Ministerial control. This does not preclude Ministers from participating in the setting of objectives and goals.

iii. **Flexibility.** Final arrangements should be flexible enough to allow for evolving tools and best policy practices to be adopted at a relatively low administrative cost.

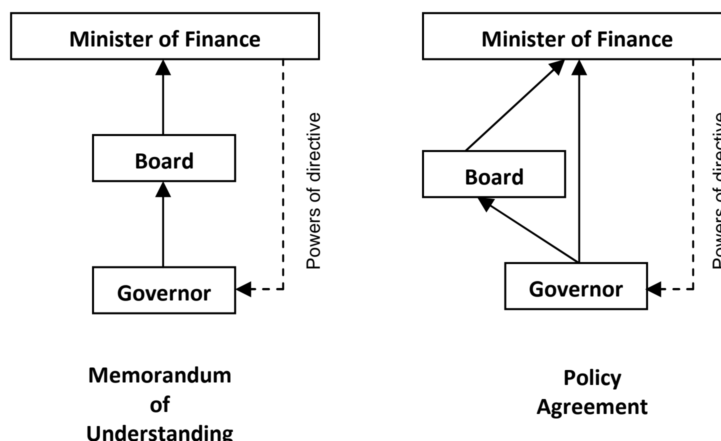
6. What do we still need to agree on?

There are three issues where there are differences in views:

i. **MoU (Clarity Model) vs. Policy Agreement (Accountability Model).** There is consensus on the need for some form of agreement between Ministers and the Reserve Bank that clearly sets out the governance framework. There are differing views, however, on how that agreement would be enacted.

The *de-facto* solution would be a memorandum of understanding, signed between the Reserve Bank and the Minister of Finance, and monitored by the Board of Governors.

The *de-jure* solution would be to amend the Reserve Bank Act by inserting language that would require the Minister of Finance and Governor to agree *ex-ante* on the policy framework. The reference would be similar to the one referring the monetary policy targets agreement[9].



ii. **The extent of ongoing Treasury participation.** There are differing views over the net benefits of ongoing Treasury participation in the process. These range from no ongoing participation (agree everything upfront, leave the RB to do its work), to some participation (through a joint information committee), to a formal passive role (passive/non-voting representation at the Reserve Bank's Macro-Financial Committee).

Our view is that increased reputational risks and/or human capital costs should not themselves be reasons that prevent optimal arrangements from being established. The key risk with Treasury involvement, in our opinion, is that it could affect perceptions around the independence of the Reserve Bank. The option of the Joint Information Committee would help mitigate that perception, since it would be done at arm's length from decision making processes.

iii. [2]

[9] Box 4 in the background paper provides more detail on this issue.

[2]

[2]

Our recommendations on institutional arrangements can be summarised as follows:

i. **The establishment of a policy agreement.** We view this option to be the best way to ensure ministerial buy-in, since it provides a direct line of accountability between the Governor and the Minister, allows for government to set the goals and objectives of the framework, while still ensuring operational independence.

ii. **The establishment of a joint information committee.** Most international models involve the Treasury at least in a passive way[11], though the degree of participation varies depending on institutional architecture and the nature of financial regulation. Given current institutional structures, we believe that Treasury participation in the Macro-Financial Committee, even in an independent (of Government) capacity, may lead to perceptions that compromise the Reserve Bank's independence and credibility.

[10] This would be balanced with a requirement that the Bank's use of these tools would not damage the soundness of the financial system.
[11] Ireland is the main exception.

We recommend, instead, that a formal joint information committee is established to foster more frequent and comprehensive policy dialogue between the Treasury and Reserve Bank. We would recommend discussion of macroprudential conditions as part of the committee's routine agenda.

iii. [2]

7. Summarising our work

Our work covers a high level of operational detail, but we arrive at four broad conclusions. We believe that these conclusions should serve as the basis to eventually land a "One Treasury View" on the best institutional arrangements for the use of macroprudential policies. They are:

i. The Reserve Bank should lead the implementation of macroprudential policies, but with appropriate institutional governance and accountability arrangements that are robust and adaptable to evolving best practices;

ii. A high degree of operational independence for the Reserve Bank is important. At the same time, greater transparency and accountability will ensure higher quality decision making;

iii. The ongoing involvement of Treasury is desirable as (i) the Crown faces large externalities arising from failure to mitigate systemic risk and (ii) future tools may involve taxes and/or other fiscal/regulatory levers. Treasury's role, however, should not compromise the operational independence of the Reserve Bank; and

iv. [2]

8. Timeline

Under the key initiative, we have committed to implementing and publicly communicating final institutional arrangements for the use of these policies by end-December 2012. The next steps are as follows:

i. **August-October[12]:** Discuss our views with the Reserve Bank and try to land on a joint agreement on optimal institutional arrangements. Work on a formal proposal with draft wording.

ii. **End-October:** Present recommendations to MoF for endorsement

iii. **End-December (no Act amendment) / 1st Quarter 2013 (if Act is amended):** Operationalisation; public communication of policy framework.

[12] This was originally August but has been delayed with the new Governor

Annex: Background Paper:
Assessing institutional models for a macroprudential policy framework[13]

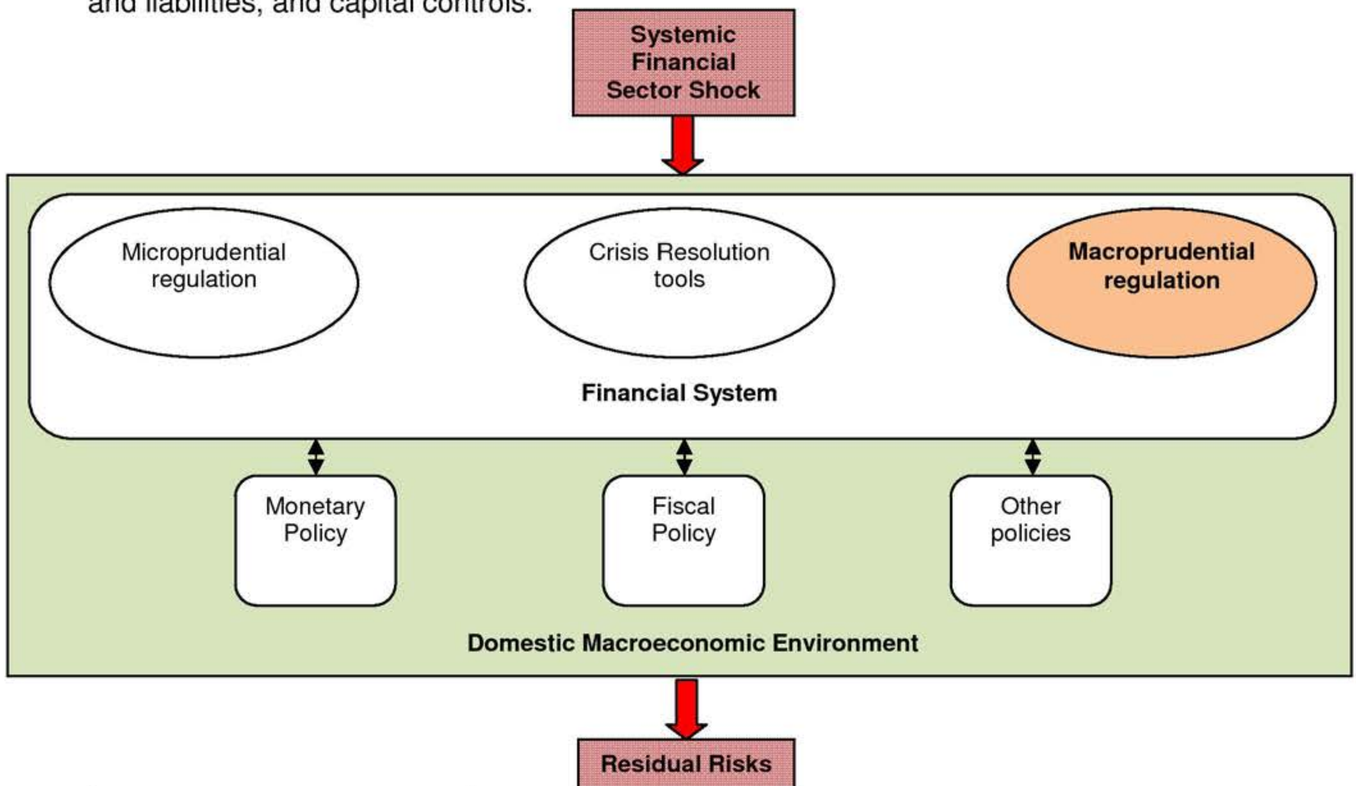
1. Background

One of the key lessons learned from the Global Financial Crisis was that there was no coordinated approach to dealing with systemic financial risk. In particular, there was an absence of clear policy frameworks at a national (or cross-country) level that required financial regulatory institutions to: (a) identify potential sources of financial sector imbalances, (b) deploy policy tools to offset the build-up of those imbalances, and (c) be accountable for the containment of systemic risk.

Since the GFC, central banks and prudential regulators have been revisiting their strategies to deal with systemic risk. One popular measure has been the development of macroprudential policy frameworks[14].

Macroprudential policy is an approach to financial regulation that minimises risks that threaten the stability of the financial system as a whole (as against an individual institution) and consequently the broader economy[15].

A variety of tools have been considered for use in implementing macroprudential policies. These include traditional (micro)prudential tools such as additional countercyclical capital surcharges, taxes, restrictions on intermediaries' sale of assets and liabilities, and capital controls.



[13] This draft forum paper was prepared by Renee Philip and Vinny Nagaraj. We thank members of the Economic Stability Group and attendees at our internal seminars for comments and suggestions. In preparing this paper we have consulted extensively with the Reserve Bank.
[14] There have been other measures such as the implementation of the Basel III microprudential regime, changes to remuneration policy, and changes to regulatory regimes.
[15] Bernanke (2009). See also: (2004258) (2120097) (2121835) (2060521) for Treasury work, and Spencer (2012) for RB's recent comments around macroprudential policies.

Box 1: Micro versus Macro Prudential

Interest in macroprudential policies has arisen out of lessons learned from the GFC. One lesson in particular has been that microprudential policies are necessary but sufficient in detecting and mitigating systemic risk. Microprudential policies are designed around the risks of the failure/insolvency of individual institutions. Solvency alone, however, does not guarantee against the build-up of systemic risks such as imbalances.

Microprudential regulation was not designed to detect risks that are of a system-wide nature such as correlation risks. Further, some microprudential rules may themselves pose a threat to the wider system through the interconnectedness of the financial system. Macroprudential policies are designed to treat the financial system as a whole, *with the ultimate objective of containing systemic risk*. The following table summarizes the key differences:

Macro versus Microprudential Policies

	Macroprudential	**Microprudential**
Key objective	To limit financial system-wide distress	To limit distress of individual institutions
Secondary Objective	Avoid macroeconomic costs linked to financial instability	Limit distress to investors/consumers; limit risk to Crown
Nature of risk	Endogenous (dependent on collective behaviour)	Exogenous (independent of individual agents' behaviour)
Correlations/common exposures across institutions	Important	Irrelevant
How are prudential tools calibrated for use?	For system-wide use; "top-down"	For individual institutional risks; "bottom-up"

Adapted from Borio (2003)

There has been considerable international interest in the use of these tools since the GFC and most advanced economies are now working to put formal macroprudential policy frameworks in place. The exact arrangements vary from country to country, and depend heavily on the nature of financial regulation and institutional arrangements in each country. For example, a number of countries have separate monetary, prudential and financial conduct authorities, requiring them to create coordinating bodies to oversee macroprudential policies. Other international models involve varying involvements of central banks, prudential regulators and Treasuries, with decision-making rights often resting with one institution but with strong governance and accountability measures in place.

Within Treasury, earlier policy pieces have examined the international debate, and the potential effectiveness of macroprudential policies[16]. Earlier work has also looked at impact of macroprudential tools on possible secondary objectives such as monetary policy and credit cycles. Since then, the Reserve Bank has communicated on a number of instances its intent to formalise its (internal) macroprudential policy framework.

[16] Both Treasury and RB work listed earlier reaches this view. In addition Ha and Hodgetts (2011) provide some analytical estimates.

While there are still open questions about how effective these tools might be for New Zealand, this paper takes as given the consensus view that the establishment of a formal framework and possible deployment of tools during the next build-up of imbalances is likely to have a net benefit (albeit possibly small).

The paper also takes as given that **macroprudential policies would be deployed primarily for financial stability purposes**—they would **not** be explicitly used to target other wider economic conditions (e.g. exchange rate imbalances and/or affordability of housing).[17]

This paper evaluates a number of possible institutional models for the operation and governance of macroprudential policies in New Zealand. We present an overview of work already done, set out core objectives of having an institutional framework, set out assessment criteria, and then evaluate five models of governance. We then provide recommendations on the best options for New Zealand.

2. The status of the macroprudential toolkit in New Zealand

The Reserve Bank has been looking at possible macroprudential policy frameworks over the last three years. Through this process, the Bank has strengthened its ability to monitor and identify sources of systemic risk. In 2009, the Bank established an internal Macro-Financial committee that serves as a coordination bridge between the monetary policy and financial stability mandates of the Bank. The Bank has also identified four tools that could have a role in managing future periods of strong credit growth:

- **The Counter-Cyclical Capital Buffer** is an additional capital requirement that could be imposed if credit is booming and removed when the credit cycle turns down, providing banks with additional loss-absorbing capacity. It is part of the new Basel III capital regime.
- Adjustments to the minimum **Core Funding Ratio** may have a role to play in dampening rapid lending growth, whilst also ensuring that growth in credit is funded from more stable sources.
- Selective **adjustment to risk weights** may be appropriate if lending to particular sectors is excessive.
- Restrictions on **loan-to-value ratios** for residential lending may be appropriate if rapid housing credit growth is associated with high LVR lending.

Ha and Hodgetts (2011) and Spencer (2010) provide a complete overview of the Reserve Bank's analytical work in the area of macroprudential policies. They indicate that new prudential tools may be developed over time, and could be deployed through the Reserve Bank's Macro-Financial Committee. The authors also indicate that there may be other tools, such as taxes on financial ratios, which may be worth considering as international best practices evolve[18]. The consideration of tools outside the

[17] With one exception: the use of macroprudential tools to target price stability is discussed as an option towards the end of this paper.
[18] South Korea introduced a financial stability levy in August 2011 to incentivise lenders to take out offshore debt with longer maturities (thereby reducing their vulnerability to global shocks). The resources collected (2011-2012 estimate: $210 million) will be ring-fenced and used to

prudential framework, however, would fall outside the mandate of the Reserve Bank. There are currently no formal systems in place for other macroprudential tools that lie outside the Reserve Bank's core mandate to be considered.

3. Institutional Frameworks and Governance

The case for a framework

BIS (2011), FSB (2011), IMF (2011a), and IMF (2011b) provide strong arguments for the establishment of an institutional framework that clearly identifies (a) decision making rights, (b) governance of those rights, (c) *ex-ante* and *ex-post* accountability and (d) public transparency of the process. The core arguments for the establishment of an independent framework governing the use of macroprudential policies are as follows:

- **New function.** Internationally, there is still a debate around whether macroprudential policies are a new policy function requiring separate governance arrangements, or a simply the reorientation of prudential policies. Spencer (2010) and Ha and Hodgetts (2011) clarify this issue in the New Zealand position. They argue that the use of prudential tools for system-wide stability is a new approach. Given the complexities of determining when to use macroprudential tools, and the possible spill-over effects that they could have on other policies, the authors argue that new institutional arrangements are necessary[19].

- **Clarity.** There are expectations in New Zealand and internationally that macroprudential tools could be used to tackle broader macroeconomic imbalances such as overvalued exchange rates and high housing prices. IMF (2011a) cautions against such expectations, and recommends that financial system-wide stability should be the sole objective of these policies. An independent policy framework would help to mitigate these expectations by providing upfront clarity around the objectives of macroprudential tools and the mechanics of how and when those tools would be used.

- **Complexity.** The use of macroprudential policies comes with a number of risks, such as timing (both when tools are deployed, and when they are revoked), spill-over effects on the wider economy[20], and the risk of financial disintermediation. An independent framework would address some of those risks.

- **Co-existence.** As an addition to the overall macroeconomic stability framework, macroprudential policies would sit alongside monetary, fiscal and other financial stability frameworks. A clear framework would enable more effective coordination across policies, and also help to manage tradeoffs between them. Ha and Hodgetts (2011) cite policy coordination and the potential for conflict with monetary policy as the main reasons for specific macroprudential arrangements.

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provide emergency liquidity. South Korea also introduced a number of other measures such as caps on forex forward contracts, and taxes on foreign investment in local bonds. See Hahm Mishkin Shin and Shin (2012)

[19] Although Hodgetts and Ha (2011) also suggest that these arrangements would be *internal* within the Reserve Bank. The authors note that the existing mandate and accountability provisions in the Reserve Bank Act would be sufficient to govern this new function.

[20] As an example, the use of LVR restrictions could affect lower income groups and first-time homeowners more than other segments of the population.

Box 2: A first-principles look at Macroprudential Policies

Recent work by Liebeg and Posch (2011) and Nicolò Favara and Ratnovski (2012) look at systemic risks through a market failure lens. The latter paper identifies market failures that arise from three types of externalities that create systemic risk, and that justify macroprudential regulation:

- Externalities from strategic complementarities that arise from:
  - increased competition during boom times, leading to lower credit standards;
  - competitive benchmarking of credit policies to ensure that market reaction to poor performance is mitigated by other banks reporting similar performance; and
  - the prospect of a government bailout leading banks to engage in correlated asset choices across the financial system (which would force the government to engage in a bailout to prevent a financial crisis).

- Externalities related to fire sales of assets in a crisis:
  - Fire sales occur when a financial institution must liquidate an asset in a market where potential demand is weak
  - Externalities arise when market agents buy assets taking prices as given, but do not internalise the fact that in equilibrium, the price of the asset depends on aggregate behaviour. Agents therefore may over borrow, causing a build-up of imbalances.

- Externalities related to interconnectedness:
  - The failure of a bank can affect the rest of the financial system, because of asset price movements, bilateral interbank exposures, or the real economic effects of a failure.
  - The level of interconnectedness is beyond the control of individual banks, and could arise from mutual hedging and diversification. This creates large externalities, particularly for systemically important financial institutions (since they are more complex).

Nicolò et. al. also attempt to match types of macroprudential tools to the externalities that they address:

Externalities and Macroprudential Policies (Nicolò et. al. 2011)

Type of externality	**Types of policy**			
	Capital Requirements	**Liquidity Requirements**	**Restrictions on activities, assets, liabilities**	**Taxation**
Strategic complementarities	X		X	
Fire sales	X	X		X
Interconnectedness	X		X	X

The Reserve Bank also views externalities as the driving force behind the implementation of these policies. Spencer (2010) argues that failure to account for externalities arising from interconnectedness was one of the main causes of the financial crisis, and highlights the role that macroprudential policies could play in mitigating the effect of these externalities.

New Zealand's high level of financial sector interconnectedness and relatively higher prospect of a government bailout as a result could potentially increase risks arising from externalities relating to strategic complementarities.

Benefits and Risks of a single institution model

There are some benefits of having all financial regulatory and supervisory functions integrated within the central bank. These include the potential for strong information flows and coordination across various functions of the central bank, potentially strengthening incentives to use tools, ensuring independence from political influence, providing for strong accountability (because responsibility is clear), and making good use of existing expertise within the central bank.

FSB (2011), IMF (2011a) and IMF (2011b) also caution against the adoption of purely single institution models. They argue that a single institution model may pose some serious risks:

- **Conflicting judgements and credibility.** The central bank may need to prioritise one policy framework over another. Agenlini, Neri, and Panetta (2010), and Beau, Clerc, and Mojon (2011) argue that an optimal price stability framework requires independence between macroprudential and monetary policies. Table 1 presents some of those trade-offs.

  There is potential for conflict in two scenarios. The first of these is when the optimal macroprudential response would be to withdraw policy action (e.g. withdraw the counter-cyclical capital buffer), but inflation is above the target range. The second is when the build-up of financial imbalances is imminent, but when inflation is below the target range. While opportunities for such conflict would be very infrequent, they still represent a potentially difficult situation for a single institution.

  The potential for these conflicts could reduce the central bank's credibility in tackling both price and financial stability[21]. Ueda and Valencia (2012) argue that this is the result of conflicting time horizons across the two policies. Macroprudential tools are used over a longer horizon (2+ years) and are adjusted infrequently, whereas monetary policy tools are used over a 12-18 month inflation horizon.

	Inflation above target	Inflation close to target	Inflation below target
Boom	Complementary	Independent	Conflicting
No Imbalance	Independent	Independent	Independent
Bust	Conflicting	Independent	Complementary

Table 1: Risk of conflicts (Source: Beau, Clerc, Mojon (2011))

- **Dominance of views.** There is a risk that a single institution might reduce the opportunities for contrarian views to emerge, and that the "house view" is too firmly entrenched.

- **Use of tools.** A single institution model could create risks that tools could be used either excessively[22] or too conservatively (in the absence of a clear mandate). In the New Zealand case, a conservative governor could take a narrow view on the Reserve Bank's financial stability mandate, and not use macroprudential tools.

[21] This was argued even before the advent of macroprudential policies. Goodheart and Schoenmaker (1995) adopt a game theoretical approach and suggest a coordinated approach is suboptimal even between monetary and financial stability purposes.
[22] This might occur, for example, if the institution could also use macroprudential tools for price stability purposes.

- **Concentration of power.** Adding an additional policy framework to an institution already responsible for other frameworks (e.g. monetary policy, financial stability, resolution, insurance) would lead to a concentration of power. The risk may be higher in the context of New Zealand's single decision maker framework.

- **Legitimacy / Reputation risk.** There may be a credibility risk when the market does not believe that the institution can manage conflicting policy interests. The participation of a secondary institution could improve the legitimacy of the framework and enhance its reputation[23].

- **Coordination with other policies.** The single institution framework is effective in ensuring that policies internal to the institution are better coordinated. However, where other policy frameworks may be useful, there is some risk that a single institution model would pose coordination challenges. An example could be the use of fiscal or financial conduct policies to mitigate systemic risk.

4. An ideal institutional framework - characteristics and criteria

The objective of macroprudential policies is to reduce systemic risk within the financial system and, as a result, the broader economy. We view an effective macroprudential framework as having three key characteristics[24]:

- **Increases effectiveness of systemic risk assessment and monitoring.**
  - Early identification of systemic risks should enable decision makers to act in a timely manner.
  - In addition to ex-ante assessment of risks, there should also be continuous monitoring of deployed policies in order to determine the optimal time for withdrawal.
  - The framework should also enable institutions to effectively collect and share information necessary to the decision-making process.

- **Enables timely and effective use of macroprudential tools.**
  - The framework should identify a macroprudential authority with a clear mandate, and allow the authority to address systemic risk through clearly established powers and rights.
  - It should enable institutions to take policy actions against the accumulation of financial imbalances, while at the same time reduce risk aversion and delays in policy actions.
  - The framework should also contain strong accountability and governance arrangements that create safeguards against excessive or inadequate use of policy levers.

- **Improves coordination across policies.**
  - In order to effectively address systemic risk, a framework should improve coordination of information (and decisions) across other policy frameworks (monetary, microprudential, fiscal, resolution).
  - The framework should also clearly state how conflicts with other policies (e.g. monetary vs. macroprudential policies) would be addressed.

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[23] This would have to be weighed against the potential impact on the independence of the macroprudential decision making process.

[24] IMF (2011b), BIS (2011), FSB (2011), Bank of England (2011), and Jenkins and Thiessen (2012) have cited variations of these objectives as rationale for the adoption of a formal policy framework. These objectives also broadly echo the results of a December 2010 IMF survey of financial stability policies in 48 countries.

- Potentially, the framework should also enhance trans-Tasman coordination of information and policies.

In order to assess the relative trade-offs between model institutional frameworks, we have identified four key criteria that would create an enabling environment for an effective macroprudential framework:

- **Supports high-quality decision making.** The use of macroprudential tools is a complex process that depends, largely, on the judgements of key decision-makers. Given the potential for expert judgements to differ, institutional arrangements should ensure decision-makers have access to (i) all relevant information and (ii) an appropriate range of policy perspectives. There should also be an appropriate degree of transparency and external scrutiny of the decision making process.

- **Allows for politically independent decision making.** Macroprudential policy is problematic from a political economy perspective because it requires action to be taken in anticipation of and during an *upswing*, when there may be disagreement about whether a problem even exists[25]. Operational independence will allow policymakers to implement unpopular policy. It will also improve the credibility and effectiveness of the policy framework.

- **Creates an enduring framework.** Institutional arrangements for the use of macroprudential tools will be agreed to during “peacetime”. These arrangements need to endure over time to ensure they remain relevant when the next bubble occurs. At the same time, the framework must be flexible enough to respond to emerging best practice.

- **Encourages policy coordination across relevant frameworks.** Macroprudential policies are still evolving, and there are alternative instruments that might complement the proposed microprudential toolkit (see Box 3), or serve as alternatives where the use of microprudential tools is not feasible. Institutional arrangements need to ensure that alternative instruments can be considered and used when needed.

[25] While the case for *operational* independence is strong, politicians may have a legitimate interest in the setting of objectives, i.e. the extent to which systemic risks should be reduced, and at what cost to the broader economy. This is analogous to monetary policy where the Reserve Bank has operational independence but not goal independence.

Box 3: Avoiding Systemic Risk - Policy Options

The following table, adapted in part from Hannoun (2010), provides an overview of how other policy frameworks could also strengthen financial system resilience:

Framework	Goal	Tools
Prudential policy (microprudential)	Limit distress of individual institutions	Capital controls, leverage ratios, etc.
Prudential policy (system-wide)	Limit system-wide distress	Countercyclical capital buffers
Resolution policy	Limit distress to system as a result of bank failure	Crisis resolution tools
Monetary policy	Price stability	OCR, repurchase agreements
	Liquidity management	Collateral policies, interest on reserves, policy corridors
	Lean against financial imbalances	OCR, reserve requirements, sweep of excess liquidity, FX reserve buffers
Fiscal policy	Managing aggregate demand	Taxes, automatic stabilizers, discretionary countercyclical measures
	Build fiscal buffers during good times	Structural measures to reduce debt, taxes/levies on financial system
Capital controls	Limit system-wide currency mismatches	Limits to open forex positions, constraints on type of foreign currency assets
Regulatory environment	Improve architecture of the financial system	Limit complexity of financial products, move derivative trading on exchanges, etc.

5. The Baseline Model

(Existing Structures and Mandate)

Decision making rights	**Reserve Bank Governor; existing mandate**
Governance	**Existing arrangements through Board**
Ex-Ante Accountability	**Existing arrangements (Financial Stability Report)**
Ex-Post Accountability	**Board supervision; ex-post assessment**
Treasury Involvement	**Consultation after internal RB decision to use tool.**[26]

Comment

Hodgetts and Ha (2011) propose this model for New Zealand. It is based on the Reserve Bank's existing mandate to maintain the soundness and efficiency of the financial system. We use this as the baseline for evaluating the relative advantages and disadvantages of other models.

Advantages of the model

Simplicity / Least cost. The model uses the Reserve Bank's existing mandate and processes. It creates a minimal additional footprint[27], and represents the lowest cost approach to establishing institutional arrangements for the use of macroprudential policies.

Political independence. This model offers a politically independent decision making process with a clear line of reporting. It also ensures that decisions are arrived at with "one voice", lending some credibility to the process, and to public communication around the risks and warnings.

Stronger coordination gains. In their existing roles as central bank and prudential regulator, the Reserve Bank already collects the required data and has the necessary expertise to analyse systemic risks. With the right internal structures in place, this model would foster information follows and offer coordination gains across monetary, prudential, and macroprudential policies.

Disadvantages of the model

The main disadvantages of this model stem from the risks of a single institutional arrangement and from a more conservative future interpretation of the Reserve Bank's current mandate.

Risk Aversion / Mandate less clear. The model assumes that the existing financial stability mandate under the Reserve Bank Act is sufficient for the use of macroprudential tools. The current mandate, however, does not *oblige* the Bank to consider macroprudential policies – it is discretionary and could be subject to

[26] There would also be some ongoing opportunities for discussion through the regular Financial Systems meetings with the Minister of Finance, but no other formal mechanisms to discuss macroprudential conditions in greater detail.

[27] Although there have been internal costs within the RB of establishing data monitoring systems and the Macro-Financial Committee

interpretation. A future Governor, for example, could adopt a more conservative stance and may delay or decide not to consider the use of macroprudential tools.

Policy conflicts / Credibility. There may be instances where monetary and macroprudential policies require conflicting actions. There is also a risk that a perceived failure in one mandate (e.g. a Bank failure or high inflation) may reduce the credibility of other mandates. Public credibility of both policies may come under risk if public agents do not believe that there are effective mechanisms in place to deal with conflicting policy outcomes.[28]

Challenging house views. The model itself does not have any explicit mechanisms to allow for "house views" to be challenged[29]

Less upfront clarity / Lack of public transparency. Since only internal processes would change, there is less upfront clarity around the decision making process (though this could be mitigated by a public consultation process). Further, since the process is entirely internal, there may be less ongoing transparency around individual decisions around macroprudential conditions. This could be mitigated by publicly communicating the final decision making process around these policies[30].

Lobbying. The Reserve Bank may be prone to Banking sector lobbying against the use of macroprudential tools.[31] Other arrangements involving a secondary institution may not necessarily make lobbying more difficult (and could potentially *increase* lobbying risks), but with increased transparency it may make the process more resilient to lobbying.

The costs and benefits of a limited Treasury role

The absence of a secondary institution (such as Treasury) may help to ensure that decisions are reached more efficiently. It may also help to improve public perceptions around the political independence of the process[32]

Crown risk is a large externality arising from the failure to mitigate systemic risks. In the event of a crisis, the Treasury would bear the fiscal burden of any large financial sector intervention. Limiting Treasury participation in ongoing formal institutional arrangements would make this externality harder for the decision maker to internalize.

The Treasury also provides first opinion advice on wider macroeconomic policy as well as on additional instruments that could be used for macroprudential purposes, such as taxes and foreign exchange controls. So while this model may offer some *internal* coordination gains, it does not offer an ability to take into account wider economic trade-offs or enable coordination *across* agencies that have an interest in financial and macroeconomic stability. This model provides for some consultation with Treasury and

[28] This may be a more visible concern in New Zealand, where there a single decision maker would decide over all mandates. Though the Board plays a strong role in oversight, it is a role that is less publicly visible.

[29] Treasury and/or the Minister of Finance could raise different perspectives through consultation mechanisms proposed by the Bank, but this may be too late into the process.

[30] in addition to speeches and research already published, the Reserve Bank have indicated that public communication would be an important measure.

[31] See Igan, Mishra and Tressel (2009) for an overview of Banking sector lobbying in the US before the GFC.

[32] Treasury is an independent policy advisor to Government, but public perceptions play an important role. Any Treasury participation would have to be certified independent, similar to existing arrangements around forecasting.

the Minister of Finance, but any major consultation would only occur at the very end of the decision making process, and not on an ongoing basis.

Summary

This model, based on a single institution framework and relying on existing measures, provides the least cost approach to formally establishing a macroprudential policy framework in New Zealand. Though there are a number of in-house risks, this model would provide for an effective way to identify analyse and monitor systemic risks since most information would be available within the Reserve Bank, and existing expertise could be leveraged to understand the macroprudential environment.

The model, however, depends heavily on the quality of the institution. The main risks in this model are around the timely and effective use of policy tools – there is a potential for conflicting policy decisions and risks around conservative interpretation of mandates and inadequate tool use. While the model allows for effective internal policy coordination, it is less transparent. Finally, the exlcusion of other financial stability agencies makes cross-agency coordination more difficult.

Baseline Model

Supports high quality decision making	**Lower**
Provides all relevant information	*Higher*
Range of policy perspectives	*Lower*
External scrutiny	*Lower*
Transparency	*Lower*
Allows for politically independent decision making	**Higher**
Creates an enduring framework	**Medium**
Long-term relevance	*Lower*
Flexibility	*Higher*
Encourages coordination with other policies	**Lower**

6. The Clarity Model

(Existing Structures and Mandate + Upfront Clarity)

Decision making rights	**Reserve Bank Governor; existing mandate**
Governance	**Memorandum of Understanding; Existing arrangements through Board**
Ex-Ante Accountability	**Existing arrangements (Financial Stability Report)**
Ex-Post Accountability	**Board supervision; ex-post assessment**
Treasury Involvement	**Consultation ahead of tool deployment.** [33]

Key difference from the Baseline Model

This is now the preferred Reserve Bank model for institutional arrangements. The main difference between this model and the Baseline Model is that this model contains an additional governance measure – a Memorandum of Understanding, **signed between the Minister of Finance and the Governor**. This Memorandum would clearly outline:

- What macroprudential policy is in the New Zealand context;
- Primary objectives of the policy and possible spill over effects from policy use;
- The toolkit;
- The circumstances when tools would be considered;
- The role of each party to the MoU in the framework;
- Possible secondary objectives that would warrant consideration;
- How decisions would be made;
- How policy conflicts would be managed;
- How decisions would be communicated; and
- The accountability and governance measures.

Advantages of this model over the Baseline Model

Upfront clarity / Transparency. The aim of the Memorandum would be to provide up-front clarity to key stakeholders (such as the Board, Minister of Finance, Treasury and the financial sector) and public agents around what these tools are, how and when they would be used to promote financial stability, and what checks and balances would govern the use of these tools. While the Bank would operate on existing mandates and legislations, the Memorandum would help manage expectations effectively, up-front, and well ahead of possible tool deployment.

Adaptable. An MoU is a relatively informal arrangement when compared to a change in the Reserve Bank Act. It could be modified (at lower cost) from time to time depending on changing domestic circumstances or international best practices.

May encourage greater consideration. Through the upfront establishment of an MoU, there may be greater scrutiny of the Reserve Bank's non-use (or excessive use) of macroprudential policies.

Disadvantages of the model

[33] There would also be some opportunities for discussion through the regular Financial Systems meetings with the Minister of Finance, but no other formal mechanisms to discuss macroprudential conditions.

While this model provides addresses some of the disadvantages of Model 1 through up-front clarity, it leaves others unaddressed, such as issues around house views, lobbying pressures, the lack of a clear mandate, and a limited Treasury role. While this model provides up-front clarity, there are no additional formal measures to monitor the implementation of the MoU over the policy horizon. In addition, the MoU as a governance mechanism has its own risks:

Non-Binding. Though the model addresses some of the single institution risks with upfront clarity around the framework, it represents a light touch approach to governance. An MoU[34] is a non-binding document without clear targets and/or a formal monitoring framework.

Easier to modify. The relative modifiability of the MoU could pose risks to policy continuity, and make the framework more vulnerable to political interference. Given the large periods of "peacetime" between uses of the toolkit, more formal measures with higher barriers to modification may mitigate the desire to use these tools to address other economic concerns.[35]

Summary

This model creates upfront clarity over the mechanics of the single institution framework proposed in the Baseline Model. The main advantage is that it brings all key stakeholders to a common understanding of what the policy framework can and cannot do. The model is also adaptable, would allow for easier public dissemination and would help manage public expectations around macroprudential policies.

While the model goes some way into addressing some of the single institution risks, it is non-binding and may not fully address issues around a clear mandate. It does not directly deal with other concerns such as house views and limits the role of Treasury in ongoing discussions around the macroprudential environment.

Clarity Model

Criterion	Rating
Supports high quality decision making	**Medium**
Provides all relevant information	*Higher*
Range of policy perspectives	*Lower*
External scrutiny	*Lower*
Transparency	*Medium*
Allows for politically independent decision making	**Higher**
Creates an enduring framework	**Medium**
Long-term relevance	*Medium*
Flexibility	*Higher*
Encourages coordination with other policies	**Lower**

[34] We assume that the MoU would be similar to the existing Foreign Exchange Intervention MoU between the Minister of Finance and the Reserve Bank.

[35] FSB (2011) and IMF (2011a) issue recommendations against the use of macroprudential tools to address macroeconomic issues that require more fundamental structural reforms.

7. The Accountability Model

(Existing Structures and Mandate + Upfront Clarity + Additional Governance and Accountability)

Decision making rights	**Reserve Bank Governor; existing mandate**
Governance	**Policy Agreement; Memorandum of Understanding; Existing arrangements through Board**
Ex-Ante Accountability	**Publishing minutes of MFC meetings; Existing arrangements (Financial Stability Report)**
Ex-Post Accountability	**Board supervision; ex-post assessment; periodic performance reviews; external framework evaluations**
Treasury Involvement	**Consultation ahead of tool deployment.** [36]

Key differences from the Baseline and Clarity Models

This model continues to assume that existing mandates and structures will provide the broad framework for governance. The key difference between this model and the Baseline/Clarity models are the introduction of more formal measures of accountability and governance specific to the use of macroprudential policies:

- **Policy agreement.** Based on the monetary policy targets agreement, this arrangement would provide a direct line of governance between the Minister of Finance and the Governor. The policy agreement between the Minister and Governor would outline the broad objectives of macroprudential policy and financial stability, and hold the Governor accountable to them. In comparison with the monetary policy side, however, it would be difficult to specifically determine targets (such as credit aggregates) that the Reserve Bank would need to meet. Instead, the document could be a joint statement of objectives that would oblige the Governor to consider them as part of his or her responsibilities in executing their financial stability mandate.

- **Published meeting minutes.** Based on recommendations from ESRB (2012), one accountability and transparency option in this model would be to publish regular macroprudential meetings by the Reserve Bank's Macro-Financial Committee.
- **Additional ex-post accountability.** There would also be options in this model of adding additional ex-post accountability measures, such as periodic performance reviews, framework evaluations by external experts, and possibly periodic benchmarking of international best practices.

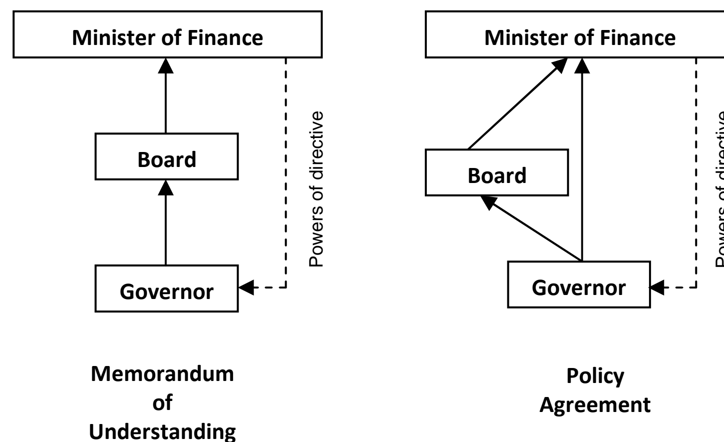
[36] There would also be some opportunities for discussion through the regular Financial Systems meetings with the Minister of Finance, but no other formal mechanisms to discuss macroprudential conditions.

Box 4: MoU or Policy Agreement?

The accountability model contains a proposal to establish a Policy Agreement between the Minister of Finance and the Governor of the Reserve Bank. The Policy Agreement would be similar in a number of ways to the Memorandum of Understanding. Both documents would be signed by the Governor and Minister and Finance, and would broadly contain the same information, and would provide up-front clarity and transparency.

There are two key differences between the documents – how they are enacted, and how accountability would be enforced. The policy agreement would be **enacted through legislative amendment** to the Reserve Bank Act (a "*de-jure*" agreement), whereas the Memorandum would be agreed to without any change to the law (a "*de-facto*" agreement). Our proposal would be to insert a clause, mirroring monetary policy, which would state that a policy agreement would be signed between the Governor and the Minister of Finance.

While both documents would be monitored by the Board of Governors, the policy agreement would provide the Minister of Finance with an additional direct line of accountability, similar to monetary policy. The following diagram provides an overview:



Memorandum of Understanding **Policy Agreement**

We view the policy agreement as a more binding form of accountability that would allow for greater ongoing political participation in the *setting of objectives*, while still allowing for operational independence.

Advantages

Addresses risk aversion / excess use. A binding policy agreement would create an explicit expectation that the macroprudential environment would be assessed periodically, and that the toolkit would be used should conditions require them.

Adaptable. Though there would be a higher hurdle than in the Clarity Model to change the policy agreement, it would still be easier to push through amendments than in a case that would require legislative change.

Equivalence with monetary policy framework. This model would enable better public understanding of the institutional arrangements since it would be similar to those operating in the monetary policy environment.

Disadvantages

Difficult to specify targets. Unlike in monetary policy where it is relatively easy to measure deviations from the inflation target, it would be difficult to specify clear measurable objectives in a policy agreement.

Higher cost. Given relative infrequency of use, establishing this new framework would require higher upfront effort.

More prone to political change. Compared to a Memorandum of Understanding, which is a more technical document, a policy agreement between the Governor and Minister would need to be agreed on with changes to the government or the governorship of the Reserve Bank. This could potentially create opportunities for political influence on the framework.

Summary

This model addresses a number of remaining weaknesses in the Clarity Model by offering the strongest checks and balances within a single institution framework. It does so, however, in a way that is comparable to existing measures on the monetary policy side. The additional governance and accountability would eliminate most risks around the inadequate or excessive use of tools, and concerns around a "black box" decision making process. By publishing committee meeting minutes, there are also strong transparency measures in place to ensure that the public have a clear understanding of the financial environment, potentially on a more regular basis than through the *Financial Stability Report*.

The model does not, however, address issues around in-house views, or enable policy coordination across other stakeholders responsible for financial and economic stability. The Passive and Active Treasury models explicitly consider those issues.

Accountability Model

Supports high quality decision making	**Medium**
Provides all relevant information	*Higher*
Range of policy perspectives	*Lower*
External scrutiny	*Lower*
Transparency	*Higher*
Allows for politically independent decision making	**Higher**
Creates an enduring framework	**Medium**
Long-term relevance	*Higher*
Flexibility	*Medium*
Encourages coordination with other policies	**Lower**

8. The Passive Treasury Model

(Existing Structures and Mandate + Upfront Clarity
+ Additional Governance and Accountability + Passive Treasury Participation)

Decision making rights	**Reserve Bank Governor; existing mandate**
Governance	**Policy Agreement; Memorandum of Understanding; Existing arrangements through Board**
Ex-Ante Accountability	**Publishing minutes of MFC meetings; Existing arrangements (Financial Stability Report)**
Ex-Post Accountability	**Board supervision; ex-post assessment; periodic performance reviews; external framework evaluations**
Treasury Involvement	**<u>Passive representation at macroprudential committee meetings.</u>**

Key difference from the Accountability Model

This is the first of two models that moves away from a single institution framework. The foundation of this model is based on the existing mandate. We assume that the model could also, optionally, contain additional checks and balances as detailed in the Accountability Model. The main addition to the model however, would be:

- **Passive Treasury participation.** In this model, Treasury would play a passive and non-binding role during the Reserve Bank's Macro-Financial Committee discussions around macroprudential policies. Treasury participation would be limited to an expression of views only, without any ability to formally influence the process or have a binding say. The objective of passive participation would be to encourage an external view on financial market conditions, and to ensure that the Treasury, as holder of residual fiscal risks, would have an ongoing ability to assess and monitor the state of imbalances and sources of systemic risk in the domestic financial market. It could also serve as a platform for the consideration of alternative tools, such as fiscal policies, to counter systemic risks.

Advantages

Coordination. This model would provide for more effective coordination not only across policies within the Reserve Bank, but across the broader macroeconomic stability framework.

Helps address policy conflicts. In the event of potential conflict between macroprudential and other policies, Treasury participation may alleviate public concerns around the credibility of Reserve Bank's stance.

Outside views. This model would address concerns around in-house views, and offer an external view on the state of the macroprudential environment.

Consideration of wider economic views. Treasury's broader economic mandate will help to better inform the Committee around the possible spill-over effects and impact of tools on the wider economy.

Representation of Crown risk. Treasury would possibly benefit from ongoing participation in meetings to improve its ability to assess possible sources of risk to the Crown from the financial sector.

Disadvantages

Perceptions. There may be a belief that the process is less independent if Treasury is seen to be involved (even if that role is passive). This could be mitigated by effective communication, and by ensuring that Treasury executes its responsibilities in a manner that is formally independent of Government (similar to arrangements in forecasting).

Non-binding. Treasury's role would be entirely non-binding, which would present a lesser challenge to in-house views.

The cost of Treasury involvement

A passive role for the Treasury on an ongoing basis would require an investment in time and labour resources to ensure that the Treasury effectively meets its mandate. While this cost is likely to be small[37] and should not weigh into the advantages and disadvantages of an optimal framework, it is a factor that may weigh into the degree of Treasury's involvement in this process.

Summary

This model is one of two under consideration that involve a secondary institution (Treasury). In both of these models, the Reserve Bank continues to maintain the active role as decision maker, but institutional arrangements are opened up to include an external opinion. This offers the benefit of addressing concerns around policy conflicts and in-house views, but potentially comes at a higher investment cost and more formality. There may also be perception issues around the independence of the decision making process, though this could be managed if done correctly.

Passive Treasury Model

Supports high quality decision making	**Higher**
Provides all relevant information	*Higher*
Range of policy perspectives	*Higher*
External scrutiny	*Higher*
Transparency	*Higher*
Allows for politically independent decision making	**Medium**[38]
Creates an enduring framework	**Medium**
Long-term relevance	*Medium*
Flexibility	*Medium*
Encourages coordination with other policies	**Higher**

[37] We expect the resources to be about 10 hours per quarter of a Senior Analyst, and ELT resources at the Deputy Secretary level to represent Treasury's views at MFC meetings.
[38] This could be mitigated by certifying Treasury role as independent, and through a well communicated public announcement to this effect.

9. The Active Treasury Model

(Existing Structures and Mandate + Upfront Clarity
+ Additional Governance and Accountability + Active Treasury Participation)

Decision making rights	**Reserve Bank Governor; existing mandate**
Governance	**Policy Agreement; Memorandum of Understanding; Existing arrangements through Board**
Ex-Ante Accountability	**Publishing minutes of MFC meetings; Existing arrangements (Financial Stability Report)**
Ex-Post Accountability	**Board supervision; ex-post assessment; periodic performance reviews; external framework evaluations**
Treasury Involvement	**<u>Active representation at macroprudential committee meetings</u>.**

Key difference from the Passive Treasury Model

The only difference between this model and the Passive Treasury Model is:

- **Active Treasury role.** Treasury would have an active say at the macroprudential committee meetings. This would be binding at the committee level, and would oblige the committee to consider Treasury's views when issuing final recommendations to the Governor[39]. Where there is a divergence of views, the committee would reflect those differences (and the reasons) in the minutes. The final decision making rights, however, would rest with the Governor, and Treasury would have no influence in that process[40].

Advantages

In addition to the benefits of the Passive Treasury Model, the incremental benefits are:

Active consideration of views. The Macro Financial Committee would be obliged to consider Treasury's view as part of its own process of issuing recommendations to the Governor. This would require the Reserve Bank to explore alternative standpoints around macroprudential conditions.

Policy credibility. This model may help even further in reducing public concerns around policy credibility where there is perception around potential policy conflicts.

Disadvantages

May increase complexity of decision making process. The active participation of a secondary institution may reduce the efficiency of the decision making process. Where there is a divergence of views between institutions, attempts to reconcile those differences may delay decisions.

The cost of Treasury involvement

[39] Although current practice is that the Governor attends MFC meetings
[40] In this model we assume the current status quo at MFC meetings - that decisions are not subject to a formal vote. It could easily be modified in a voting system where the Treasury representative would receive a vote.

An active Treasury role would require higher investment in labour and time resources. Treasury would be expected to present a formal opinion of macroprudential conditions at the meeting, and this would have to be carefully evaluated and considered ahead of meetings. In addition, Treasury would face some reputation risks as an active participant in the policy framework. While these factors should not impede the adoption of an optimal framework, adoption of this model would require careful thought around perceptions that Treasury's participation may affect the Reserve Bank's independence.

Summary

This model blends the strongest accountability/governance measures from the single institution models with an active Treasury role. An active role would create high hurdles for the Reserve Bank to ignore alternative views and possibly lend credibility to the framework. It would do so in a way that does not compromise the independence of the decision making process, since recommendations would only binding to the recommending committee and not the decision maker. At the same time this model would create high investment costs for the Treasury, particularly during peace time periods where there are no signs of imbalances. Practically, it would be difficult to implement given that there is strong reluctance to alter the status-quo.

Passive Treasury Model

Supports high quality decision making	**Higher**
Provides all relevant information	*Higher*
Range of policy perspectives	*Higher*
External scrutiny	*Higher*
Transparency	*Higher*
Allows for politically independent decision making	**Lower**[41]
Creates an enduring framework	**Medium**
Long-term relevance	*Medium*
Flexibility	*Medium*
Encourages coordination with other policies	**Higher**

[41] This could be mitigated by certifying Treasury role as independent, through a well communicated public announcement to this effect, and by publishing meeting minutes.

10. Additional Options

In addition to the five options we have considered, we propose two additional options that could be integrated into any of the five options and attempt to address some of the potential weaknesses of the models:

[2]

[2]

Option two: the establishment of a Joint Information Committee

An alternative form of passive Treasury participation could be through the establishment of a Joint Information Committee between the Reserve Bank and Treasury. The aim would be to foster policy coordination across all macroeconomic policies (monetary, fiscal, financial stability, economic growth) and provide a forum for officials from both institutions to discuss possible policy complementarities and conflicts. The committee would meet regularly to share information and discuss policy performance and outcomes. It would have the power to issue non-binding recommendations to each member institution. The committee could be expanded to include members from other relevant institutions (e.g. Financial Markets Authority) as necessary.

The main benefit of such a committee would be that it would facilitate an open dialogue between institutions responsible for macroeconomic stability. In the context of macroprudential policies, committee meetings could include discussions around current

macroprudential conditions and possible tool use. It would also provide a forum for alternative macroprudential tools, such as taxes, to be considered. The non-binding nature of discussions would ensure that Treasury's role is passive, but at the same time provide a forum for alternative views to be expressed and considered.

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