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To: Minister of Finance (Hon Grant Robertson)

Deadline: None  
(if any)

## Aide Memoire: Quantitative Easing and Monetary Financing Compared

### Purpose

This Aide Memoire sets out a framework to consider the similarities and differences between Quantitative Easing (QE) and Monetary Financing (MF) across economic and governance dimensions. It also outlines the risks and possible mitigation measures that are, or can be, used for both approaches. This Aide Memoire is for your information, given that there have been a number of number of commentaries about these issues in response to the economic shock caused by COVID-19.

### What are QE and MF?

Table 1 sets out the defining features of QE and MF.

**Table 1: QE & MF Defined**

	QE	MF
<b>Purpose</b>	Support aggregate demand by easing financial conditions when ability to use traditional monetary policy levers constrained	
<b>Policy Approach</b>	Meet monetary policy objectives on inflation and employment; meet short-to medium-term government funding needs as a by-product	Meet specific funding needs of the government at lower cost and with greater certainty than QE

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<b>When</b>	Interest rates at (Effective Lower Bound) ELB + in response to an economic shock	Interest rates at ELB + in response to an economic shock + price deflation + bond market dysfunction  As an alternative to, or graduated response, beyond QE
<b>Mechanism</b>	Purchasing Government bonds or other assets	Government loan (or bonds)
<b>Implementation</b>	Usually in secondary markets, but could be in primary market	Off market (or primary market)
<b>Intended Duration</b>	Temporary (but economic conditions could require it to be continued for a very long time)	Permanent

**Quantitative Easing**

QE involves purchases of government bonds and other financial assets, usually in the secondary market (but potentially in the primary market) to reduce market interest rates. As a by-product, QE also assists the government to meet its funding needs over the short- to medium-term.<sup>1</sup>

QE is a temporary measure when interest rates are at the ELB and/or in the event of an economic shock. Central Banks aim to stop bond purchases when economic conditions improve but typically hold bonds until they mature.

**Monetary Financing**

MF involves financing a fiscal deficit not by the issue of interest-bearing debt, but by an increase in the monetary base – i.e. of the irredeemable fiat non-interest-bearing monetary liabilities of the government/central bank.<sup>2</sup>

This means fiscal spending is funded by a permanent increase in the monetary base.

<sup>1</sup> Alongside an increase in the Crown Settlement Account (CSA)

<sup>2</sup> Definition proposed by Adair Turner

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**Economic Dimension**

Table 2 sets out the similarities and differences between the economic impacts of QE and MF.

**Table 2: Economic Similarities & Differences of QE & MF**

	QE	MF
<b>Aggregate Demand</b>	Stimulatory effect on aggregate demand	Stimulatory effect on aggregate demand Full-extent of impact uncertain
<b>Funding Cost</b>	OCR	Zero (or OCR)
<b>Impact of Funding Cost to Public Sector</b>	Debt servicing cost to government	Paying 0% on central bank reserves reduces bank profits. If this is passed through to higher retail lending rates it could offset some of the impact of stimulatory fiscal policy.
<b>Impact on Monetary Base</b>	Increase	
<b>Short-run Impact on Bond Yields</b>	Lowers government bond yields and other domestic interest rates	Uncertain (see text below)
<b>Long-run Impact on Bond Yields</b>	Once the economy recovers, Government bond yields increase as the Bank's bond holdings run down, and inflation expectations increase.	Uncertain (see text below)
<b>Impact on Crown Balance Sheet</b>	Same overall impact. Different composition of assets/liabilities	
<b>Distributional Outcomes</b>	Increase asset/equity prices by reducing real interest rates	

**Similarities**

Both QE and MF aim to support aggregate demand by easing financial conditions, usually when the ability to use traditional monetary policy levers is constrained. QE and MF involve the central bank increasing the monetary base. Both approaches have broadly similar impacts on the Crown's balance sheet. They create additional central bank reserves, which are a debt liability on the Crown accounts – in the same

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way that Government debt is a liability on the Crown accounts. However, relative to traditional debt financing, QE and MF imply that the Crown will have a greater share of shorter maturity liabilities (most likely settlement cash) than otherwise would be the case.

On distributional outcomes, if QE and MF reduce real interest rates to a similar extent - either through lower nominal interest rates or higher inflation - then for the same fiscal stimulus both measures can have similar effects on asset prices and incomes, and wider wellbeing.<sup>3</sup>

**Differences**

While QE and MF have broadly similar impacts on the Crown's balance sheet, the main difference is in the composition of the assets and liabilities. This has implications for the Crown's overall interest costs. These costs depend on what rules are applied to the remuneration of reserves and the stage of the economic cycle.

For QE, the funding cost is the interest paid on settlement balances, the OCR. Whether QE lowers funding costs to the government depends on whether the OCR is below longer term bond yields for the life of the funding.

For MF, the funding cost is non-interest bearing settlement balances at the central bank. However, paying 0% on reserves deposited at the Bank would reduce bank profits. To compensate, banks may increase their retail lending rates, offsetting some of the positive demand effects of the fiscal stimulus.

QE typically lowers government bond yields in the short-run, given the demand to buy bonds offsets supply. In the longer-run, yields should rise as the central bank tapers its purchases, and inflation expectations rise with the success of the policy.

The effect of MF on government bond yields is more ambiguous. All else equal, MF would reduce the supply of new bonds to the market and therefore push yields down. However, MF could also influence the risk premium on government bond yields, which is a function of market pricings of credit, inflation and liquidity risks. The size of the change in risk premium may depend on the design of governance and institutional arrangements (discussed below).

Finally, MF is a permanent measure while QE can be either temporary or sufficiently long-term in practice to be permanent, as revealed since the Global Financial Crisis (GFC).<sup>4</sup>

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<sup>3</sup> Globally, a dominant driver of recent asset price increases, most notably equity prices, has been the overall decline in real interest rates.

<sup>4</sup> Overseas, major central banks have not unwound QE as expected as economies have not improved sufficiently and neutral interest rate have been persistently lower.

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**Governance Dimension**

Table 3 outlines the main governance features of QE and MF

**Table 3: Institutional Similarities & Differences of QE & MF**

	QE	MF
<b>Policy Balance</b>	Fiscal and monetary policy coordinated but balanced by institutional separation	Fiscal policy drives monetary policy to a greater degree
<b>Decision-makers</b>	Fiscal Policy (Government) Monetary Policy (RBNZ/MPC)	Fiscal and Monetary Policy: MoF/Treasury Decide; MPC advises <sup>5</sup>
<b>Key Decision Points</b>	<ul style="list-style-type: none"> <li>▪ Activation/Deactivation criteria</li> <li>▪ Scale and speed</li> <li>▪ Managing inflation and inflation expectations</li> <li>▪ Governance risk arising from potential for fiscal excess, moral hazard and time-inconsistency.</li> <li>▪ Maintaining institutional credibility</li> <li>▪ Market functioning e.g. government bond yield curve, financial stability considerations, credit ratings</li> </ul>	

**Similarities**

Both QE and MF require decision-makers to give consideration to the scale and speed of debt issuance and to appropriately manage inflation and inflation expectations. In addition, they require similar institutional responses to managing governance risk that arises from the potential for fiscal excess and issues concerning moral hazard and time-inconsistency. Finally, both approaches can be construed as instruments of fiscal-monetary coordination to varying degrees. In this however, there are also key differences as outlined below.

**Differences**

While QE and MF require fiscal-monetary coordination, the influence of one arm of policy (fiscal) over the other (monetary) is a point of distinction between the two approaches. As noted, both QE and MF aim to support aggregate demand. QE does so by meeting inflation and employment objectives; MF, by meeting the specific funding needs of the government at lower initial cost and with greater certainty than QE.

Under QE, the formulation of monetary policy is determined by the MPC and formulation of fiscal policy is determined by the Government. However, MF could require direction (or explicit guidance) from the Government to the central bank.

<sup>5</sup> Institutional separation gives rise to certain risks. These are discussed in the next section.

**IN-CONFIDENCE****Risks & Mitigation Measures**

Internationally, over the past 30 years it has become common practice to have an operationally independent central bank with an inflation target, and government subject to fiscal disciplines. MF would require the design of a new institutional framework. This justifies consideration of the risks, and how to mitigate and manage those risks.

**Risks**

The influence of fiscal over monetary policy – actual or perceived – is inherent in the value proposition of MF, and therefore creates risks. For example, if MF is perceived as representing a loss of fiscal discipline and abandoning of mainstream monetary policy, the impact is highly uncertain but could lead to rising inflation expectations, an erosion of trust in economic institutions, and/or a downgrade in credit ratings. Any of these outcomes would see New Zealand's country risk-premium rise, potentially overriding the real economy intent of the original policy choice.

**Risk Mitigation**

A key mitigating factor for anchoring perceptions of MF could be the decision-making and governance arrangements that surround it. Arrangements that resemble existing monetary policy decision-making settings i.e. operational independence for monetary policy, could reassure that MF is not a 'complete break' from existing 'norms'. Other characteristics may also contribute to reducing perception risks, such as being subject to activation triggers (e.g. very low inflation, very high debt to GDP), being 'one-off', and/or attached to a specific event or purpose.

Officials can provide you with further information about these issues if you wish.

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