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Submission on Market Study into Personal Banking Services

Dear Sir/Madam

As an “interested party”, I appreciate your invitation to provide input on the [“Preliminary Issues Paper”](#) published on August 10 (Paper).

Introduction and Summary

The Minister has stated that he is *“interested in improving markets where the greatest long-term gains can be made for ordinary New Zealanders”*. The market that has the greatest potential strategic benefit for NZ is the market for deposit-money, and achieving the strategic benefit aspired to by the Minister is within reach. The Paper confirms the lack of competition for retail deposit-money by: the lag between OCR increases and increases in deposit-money rates, the excess rate of return by banks largely due to large margins from deposit money, and the seeming acceptance that *“retail deposits are typically a stable and low-cost source of funding for banks”*.

Even the RBNZ has criticised the banks that it regulates, for hiking mortgage interest rates faster than they increase term deposit rates and has suggested *“the banking sector would be an appropriate focus for a market study”*. The RBNZ reports that *“volatility of earnings, a standard measure of risk, has been relatively low in New Zealand compared to other countries in recent decades”* and acknowledges that *“risk does not fully explain the relatively higher returns of New Zealand banks”*.

These observations above are all symptoms of a market not operating fairly for consumers holding deposit money, and it is my submission that this is primarily due to inadequate tuning of regulations applied to bank lending. While the prevailing deposit rates may be competitive within the market, the market for deposit-money has a fundamental structural problem inherent with the nature of how deposit-money is created.

In summary I submit the following:

- The market dynamics of “savings” of deposit money must be examined, and the paradigm of commercial banks as simply ‘intermediaries’ must be rejected.
- Constraining the propensity of commercial bank lending to compete for risk is of strategic importance to NZ in respect of efficiency, stability, and value of seigniorage (See Annex A). The goal of improving competition between banks should not include encouraging competition between banks through the easing of credit standards and increase of system risk.

- The RBNZ's existing mechanism of macroprudential lending controls is essential not only for financial stability but also economic efficiency, however, to achieve the latter, the constraints must be set at meaningful levels (e.g., $DTI \leq 4.5$, $LVR < 62\%$).

Market Fundamentals

To understand the dynamic between lending and deposits an adequate model of the banking sector is needed. The Paper provides a few references as to assumptions on this matter:

- *Para 176. We are also interested in how banks balance their portfolios across retail deposits and lending. For banks to undertake their core business of credit intermediation, they need to match their lending with various types of funding, including retail deposits, funding from wholesale lending markets, and equity from their shareholders. The relative balance may be impacted by cyclical market factors such as consumer interest rates and housing (and therefore home loan) demand.*
- *Footnote 20: In this sense banking has characteristics of a platform or two-sided market. That is, banks provide an intermediation service to (at least) two distinct types of users: those seeking to safely store their money and earn a return on it, and those seeking to borrow money and who are willing to pay for the use of it.*

Contrary to the assumption implicit in these paragraphs, I submit that the “intermediation” model and the associated characterisation of markets for banking is inadequate and unhelpful in understanding the problems with competition in the market for deposit money.

A better perspective is available that examines that market through the lens of the credit theory of deposit money creation (BOM- bank originated money) recognising that “*Banks fund new loans by creating new deposit money*”. The BOM model has the implication that the market for exchange banking services is not like any other commodity or service market because bank lending generates its own resources (deposit money, also known as savings). It must not be confused with the *fractional reserve*¹ model of banking.

Collectively, banks can always make loans and without immediate concern about funding because, as a system, they create the required incremental deposit money themselves. This means that production of deposit money by the banking system always matches or exceeds the aggregate demand of that system, the preferences of the savers and depositors have little commercial influence in the outcome at the moment the deposit money is created.

If this perspective outlined above is seen as controversial, I refer to Annex C where references are provided related to money creation, and where it may be found that even the Bank of England has said that “*it is not a theory that needs to be proved, it is a simple fact*”.

¹ The “fractional reserve” or “money multiplier” model of banking used in textbooks is not useful e.g. It assumes an economy where only cash is used for transactions, not credit as deposit money. The Bank of England has said: “*the money multiplier theory... is not an accurate description of how money is created in reality. Rather than controlling the quantity of reserves, central banks today typically implement monetary policy by setting the price of reserves — that is, interest rates.*”. “*The quantity of reserves is therefore a consequence, not a cause, of lending and money creation*”.

The problem- The excess creation of deposit money

BOM, deposit money, is not a normal product which can be analysed by standard economics of supply and demand. With deposit-money, perceived as savings, supply is satisfied automatically in the process of ‘granting’ a loan. In the absence of a natural supply dynamic to attenuate demand a chaotic cyclic response of growth and decline can be induced, caused by *excess money* creation arising because of the lack of constraints on supply.

The creation of excess deposit money is manifested by a large deposit margin² between the wholesale cost of funds and the returns available to savers.

The lending standards of commercial banks are the primary determinant of the supply of deposits/savings, and there is the inherent commercial driver on banks to compete for growth by easing those lending standards. Without meaningful regulatory constraints on lending, the supply of deposits as savings is always in surplus, and therefore there is no likelihood for interbank competition alone to deliver long-term benefits as the Paper wishes.

Necessary control measures

In the NZ context, the work of the RBNZ has established mechanisms for the regulation of DTI and LVR limits which the commercial banks now have the means to implement. The magnitude of the limits developed by the RBNZ have been determined with different objectives in mind than the Paper, as RBNZ only considers financial stability and not economic efficiency or social equity³.

DTI and LVR controls on commercial bank lending are complementary to each other: a DTI limit keeps credit growth tethered to national income without restricting productive growth; and an LVR limit attenuates how quickly an economy responds to an ephemeral credit impulse or shock. Unlike LVR caps, a DTI cap does not relax as house prices rise, a DTI cap limits the value to income ratio of houses and binds more tightly when house prices grow faster than incomes, thus preventing situations where house prices and credit feed off each other.

The Setting of Control Measures

An LVR limit of 62% would be an effective control. Analysis⁴ of credit creation dynamics shows that deposit money stock is endogenously and elastically driven by loan demand until the point that the amount of collateral required for the marginal loan is more than 38%. At this level of required collateral, the credit impulse on house prices is neutralised. That is, financial growth provides a powerful impetus to asset

² The interest margin of commercial banks can be considered as having two components: 1) the interest margin between the rates available from loans relative to wholesale interest rates (loan margin); and 2) the margin of wholesale rates relative to the average cost of deposits (deposit margin). In the term wholesale interests rate I refer to the marginal cost of the banks to borrow and save, an example of which is the Official Cash Rate (OCR) which is the marginal price of short-term funds available to (and exclusively to) the commercial banks.

³ In its initial investigations of macroprudential instruments, the RBNZ expressed the view: “... regulators have largely ignored the externalities arising from the connections between bank lending and the broader macroeconomy. In particular, less attention has been paid to the ‘dynamic externalities’ created by pro-cyclical lending behaviour: – the tendency for financial institutions, households and businesses to become over-exposed during an upswing as asset prices (and collateral values) rise, and to become excessively cautious during the subsequent downturn thereby amplifying the macroeconomic cycle”.

⁴ I would be happy to discuss my analysis with ComCom.

prices until the point that the amount of collateral required is 38% of the elevated asset price. Until that point is reached, there is excess money creation because the quantity of deposit money created is more than the demands for collateral. Unfortunately however, without a firm DTI limit, no stable equilibrium is reached because as soon as the financial impulse of credit creation weakens there is political pressure to lower interest rates to raise asset prices further, thereby creating more collateral. This ascending spiral continues until there is a crisis. As the [RBNZ said](#) in respect of DTI limits: *“bank incentives lead them to take decisions that result in outcomes that are not aligned to the interests of wider society”, and “a bank may have limited reason to assess or internalise the marginal increase in system wide risk ahead of its more immediate concerns such as market share and profitability.”*

In respect of DTI, a limit of 4.5 is proposed, the figure 4.5 is not arbitrary or low⁵, the RBNZ itself has described lending origination policies of NZ banks in respect of DTI limits [as follows](#): *“These origination policies of the banks are aggressive by international comparison – in the UK speed limits on high DTI loans have been established for lending above 4.5 times income with Ireland at 3.5”*. See Annex B for CBIE’s reasoning as to why the level proposed is simply a *“prudent norm”*.

The levels of DTI and LVR I suggest here are similar to that developed by Norway. I therefore suggest it may be useful to study how Norway’s willingness to take macroprudential policy action can result in lower bank margins, lower risk, and attenuate credit growth rates commensurate with real productive growth.

Costs of Lax Lending Standards

The ongoing costs and consequences of continued lax regulatory constraints on bank lending are:

- Banks competing by taking on risk rather than competing on price, leading to credit booms that result in short-term surges in activity but in the longer term impair productive capacity and efficiency.
- Low productive growth due to the misallocation of credit resources to financial investment (e.g., speculative buying of existing housing stock) rather than to productive investment (e.g., building new housing stock).
- High cost of housing with consequent intergenerational wealth transfer.
- Unsustainable consumption of imports and high levels of external debt (NFL- net foreign liabilities).
- Losses to savers as a result of financial instability (such as via the [OBR mechanism](#)).
- A pervasive public culture that reinforces the perceived need to *“get on the housing ladder”* and to buy houses to *“get ahead”* so as to take advantage of, ahead of and to the cost of other citizens, the effects of lax regulation of banking lending. This insidious public culture is the antithesis of a culture of business innovation and initiative.
- Capture of the seigniorage value of money creation by the commercial banks which could otherwise be available for NZ. (See Annex A for an estimate of the magnitude of the seigniorage cost to NZ).

⁵ At the time of writing, the prevailing interest rate is such that a DTI limit of 4.5 is not far from where a prudent bank would be lending currently. For example, a DTI limit of 4.5 is implicit for an interest rate of 7.0%, on a loan of 30 years, where loan servicing is limited to less than 35% of gross income.

Ideological Barriers to Prudent Norms

There may be ideologically driven barriers to the recommendations of this submission. It may again be heard that *“DTIs and LVRs distort the market”* and any imposition of such limits *“prevents the New Zealand’s lending system is working as it should, and any interference would favour one group of borrowers over the other”*. But such criticisms could only be based on some vague conception that money is a commodity, like gold, where gold’s market dynamics of supply would operate to naturally attenuate demand for lending because the marginal cost of gold is not zero. The reality of money creation in modern banking makes a nonsense of such a conception.

The reality is the reverse, the absence of controls for lending favours one group of borrowers (those who can apply tax-free capital gains from real estate as collateral) relative to another (e.g., those without real estate, needing to save from tax-paid earnings).

Implementation of Proposed Control limits

The mechanism to implement the proposed control LVR control mechanism is already in place as part of RBNZ’s regulation of banks, and the mechanism to implement DTI limits will be put in place during 2024. The exceptions already developed by the RBNZ in respect of first-home buyers, lending for construction or business etc. have also been proven as adequate. While the limits are set to satisfy the RBNZ’s objectives as to financial system stability, the limits are not set at a level that is sufficient to mitigate the externalities arising from the connections between bank lending and the broader macroeconomy, which is obvious by the extraordinary extent of residential mortgage-backed lending that continues to be undertaken by NZ commercial banks to the cost of lending to productive businesses.

The only step necessary for the Crown to achieve the strategic benefits to the NZ economy as outlined in this submission is to instruct the RBNZ to tighten and make permanent the already established macroprudential controls to commercial bank lending:

- Permanently applied DTI limit of no more than 4.5 times annual gross income; and
- Permanently applied LVR limit to be no more than 62% of asset value; and
- Exemption: The proposed limits would not apply to first home buyers, persons seeking loans for business purposes, or investors arranging to build the homes they propose to offer for rent

Thank you for the opportunity to make a submission. I consider improving minimum standards for lending by commercial banks has the best potential for the greatest long-term gains for ordinary New Zealanders.

Yours faithfully,



Annex A: Seigniorage and Excess Rate of Return

Box A.1: Seigniorage and Excess Rate of Return

Over the last 50 years, the primary role for creation of money has shifted toward the commercial banks. Historically, when a higher percentage of transactions were undertaken in physical cash; seigniorage was accrued by the Crown. Now, the commercial banks are responsible for over 99% of the money created for public circulation. The article from the Copenhagen Business School referenced in Annex C explains how the various components of seigniorage can be delineated in the modern economy. It defines Commercial bank opportunity cost seigniorage as the interest foregone by the holders of deposit money (defined in this submission as “deposit margin”)

The predominant role of modern commercial banks in creating money means they are also the main beneficiaries of the seigniorage value (the Cantillon effect). It represents value and revenue foregone by the traditional beneficiary of seigniorage (the Crown) which can be seen in the high rate of return available to the commercial banks from incremental investment.

The referenced paper says that *“The extent to which commercial banks are able to expand the asset side of their balance sheet through the creation of credit money beyond the growth of the economy can be considered a measure of excess monetization and a measure of their capacity to extract resources from the real economy”*.

The referenced paper found that “in the UK commercial bank seigniorage made up between 1% and 3% of GDP over the last quarter decade, whilst in Denmark the figure was lower, varying between 0.2% and 1%”.

That banks are earning profits more than the cost of capital is evident in Attachment C of the Paper. Other industries have had their rate of return regulated by ComCom even when those industries had rates of returns lower than those currently enjoyed by the commercial banks. It can also be noted that the ComCom has recently determined cost of capital limits of the order of 8% after tax to apply to other industries. The level permitted for other industries, which arguably entail greater business risk⁶, is well below the return on capital of around 12% that NZ’s commercial banks currently enjoy. This difference would suggest that the seigniorage value extracted by banks is around 33% of their profit, and if the aggregate after-tax profit of the top 4 NZ commercial banks is currently around B\$5.6/yr., this suggests that NZ is losing nearly B\$1.8/yr. (~0.5% of GDP) while inadequate macroprudential controls on lending continue.

But beyond this large figure of seigniorage value, NZ suffers an even greater economic loss in the negative effects caused by non-productive lending (as outlined in the main text of this submission).

⁶ Commercial banks have the benefit of being able to control a major part of their business risk by the specification of their lending standards, a unique feature of commercial banking and BOM not available to ordinary businesses.

Annex B: LVR and DTI limits need to be permanent.

Box B.1: The macroprudential tools of LVR and DTI limits are simply the codification of “*prudent norms*” and should not interfere with the fundamentals of the housing market. Thus, there should be no inefficiency caused by their permanent establishment. As the Central Bank of Ireland has stated in relation to their implementation of macroprudential rules:

- *“As long as changes in house prices are motivated by fundamentals – genuine demand for housing – the rules should have little effect. But if the housing market has become speculative, where credit and house prices grow partly based on expectations of further house price increases, the rules will have a significant effect. The reason is that, at that stage, buyers’ incomes will neither pass the loan-to-income rule, nor will they support sufficient savings to accumulate future deposits. Hence, the (irrational) expectation of ever-increasing prices is thwarted, and credit and house price growth will revert to a sustainable path. Hence, macroprudential regulation, by putting **prudent norms** in the credit market on a legislative footing, can counteract financial bubbles **without significant side effects in normal times.**”*
- *“One thing is clear – allowing lending and prices to spiral off again is not a solution and would be a betrayal to the next generation of Irish home buyers. Ideally, banks and mortgage brokers should be capable of upholding prudent credit standards on their own. But experience in Ireland and many other countries has shown they are not. Higher deposit requirements slow individual households’ entry into the property market, but for borrowers collectively they are beneficial, as **they prevent us from overbidding each other with ever-increasing amounts of borrowed money.**”*
- *“Episodes of financial instability are very difficult to predict. Macro-prudential tools therefore need to be permanent features of the financial landscape”.*

The Central Bank of Ireland has warned from its experience in relation to implementation of macroprudential tools, *“the worst policy mistake is to delay implementation too long, until loan levels and house prices have reached unsustainable levels. As we know all too well in Ireland, at that stage no policy option is appealing”.*

The Central Bank of Ireland has the following [lending limits in place](#):

- *“The LTI limit restricts the amount of money you can borrow to a maximum of 4 times gross income for first-time buyers and 3.5 times gross income for second/subsequent buyers”.*
- *“Buy-to-let buyers need to have a minimum deposit of 30%.”*

Annex C: Money Creation by Lending

Box C.1: In this submission I have taken as a “given” that “Banks fund new loans by creating new deposit money”. My assumption is supported by the cited references below from the [Bank of England](#), the [IMF](#), and the [Deutsche Bundesbank](#). In addition, here are a few other references, including from Federal Reserve, the RBA, and Norges Bank, which show that it is a long established “simple fact”:

- (1954) *“it is highly inadvisable to construe bank credit on the model of existing funds being withdrawn from previous uses by an entirely imaginary act of saving and then lent out by their owners. It is much more realistic to say that the banks ‘create credit’, that is, that they create deposits in their act of lending, than to say that they lend the deposits that have been entrusted to them. And the reason for insisting on this is that depositors should not be invested with the insignia of a role which they do not play. The theory to which economists clung so tenaciously makes them out to be savers when they neither save nor intend to do so; it attributes to them an influence on the ‘supply of credit’ which they do not have.”*. [Schumpeter](#)
- (2017): *“When you borrow from a bank, the bank credits your bank account. The deposit – the money – is created by the bank the moment it issues the loan. The bank does not transfer the money from someone else’s bank account or from a vault full of money. The money lent to you by the bank has been created by the bank itself – out of nothing”*. Norwegian Central Bank -[25 April 2017](#).
- (2007): *‘...by far the largest role in creating broad money is played by the banking sector ... when banks make loans, they create additional deposits for those that have borrowed the money ... Under the present system banks do not have to wait for depositors to appear and make funds available before they can on-lend, or intermediate, those funds. Rather, they create their own funds, deposits, in the act of lending.’* Berry et al. (2007), Bank of England
- (2015): the *“theory that banks create money through loans”* ... *“is not a theory that needs to be proved, it is a simple fact, it is part of the elementary design of any modern economy’s financial system”*. Bank of England
- (2015) *“...in the real world, the key function of banks is the provision of financing, or the creation of new monetary purchasing power through loans, for a single agent that is both borrower and depositor. The bank therefore creates its own funding, deposits, in the act of lending, in a transaction that involves no intermediation whatsoever”*. [Bank of England](#)
- (1975): *“A bank is not a money lender that first acquires and then places funds. [...] A bank first lends or invests and then ‘finds’ the cash to cover whatever cash drains arise.”* Minsky
- (1969): *‘In the real world, banks extend credit, creating deposits in the process, and look for the reserves later.’* [Alan Holmes](#) (1969), former Senior Vice President, Federal Reserve Bank of New York.

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