

Secretary  
Senate Standing Committee on Economics  
PO Box 6100  
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CANBERRA ACT 2600

Via email: economics.sen@aph.gov.au

Dear Secretary

**Senate Economics Legislation Committee inquiry into the Financial Sector Legislation Amendment (Crisis Resolution Powers and Other Measures) Bill 2017**

Thank you for the opportunity to provide a submission to the Senate Economics Legislation Committee inquiry into the *Financial Sector Legislation Amendment (Crisis Resolution Powers and Other Measures) Bill 2017 (Bill)*, and the associated draft explanatory material.

**Introduction**

I wish to raise two areas of concern for due consideration by the Committee.

**Bail-in of savings deposits**

The first is in regard to the bail-in provisions of the Bill which based on overseas evidence to date may lead to the confiscation of all or part of depositors' savings. I am sure that every member of this Committee and every Australian would find it totally unacceptable for the government to legislate to place at risk even one cent of their hard earned savings.

Of even greater concern to me is the current lack of public awareness of the fact that the Australian Government is contemplating such measures which could profoundly affect the lives of older people relying on safe and secure savings and younger people saving for their first home and not forgetting the hard won savings of the average citizen. Democracy as you know requires an informed citizenry and if the public is not aware of a matter of this gravity then surely it is the obligation of those in the know (you, our representatives) to bring it to public awareness so that you can be guided by the public voice in your deliberations on our behalf.

**Recommendation 1**

That the Bill be amended to explicitly state that savings deposits are quarantined from any bail-in provisions.

**Recommendation 2**

The Committee request the Banking Royal Commission to investigate the introduction of Glass-Steagall provisions to separate commercial and investment banking as per the original Glass-Steagall Act 1932 to assist in the protection of savings deposits.

**Recommendation 3**

The Committee request the Banking Royal Commission to investigate the establishment of a safe savings facility within the Reserve Bank of Australia.

### **Erroneous paradigm of finance and prudential regulation**

My second concern relates to the recent fundamentally changed theoretical understanding of how banking works in reality and the implications of this for the prudential regulation of the financial sector. In 2014 the Bank of England revealed that banks (since 1694) don't intermediate as commonly believed but actually create new money in the form of credit every time they write a loan.

Accordingly, prudential regulation must be revised in keeping with this new insight because the failure to realise this and regulate accordingly is the reason financial systems are so inherently unstable. In other words prudential regulation is currently based on an erroneous paradigm. This results in the inherent instability of the financial system and is the reason why bail-ins and other 'crisis resolution' measures have been advocated. Unfortunately these proposed measures are also a product of the erroneous intermediation paradigm and are no more than a bandaid response to a system which will remain inherently unstable until a new regulatory approach based on the reality of credit creation is developed and adopted. Evidence for this is provided in the next section of my submission and is based largely on the empirically based research of UK Professor R. A. Warner, the originator of 'quantitative easing' and leading authority on the credit creation theory of banking and its implications.

### **Recommendation 4**

The Committee appraise itself of the credit creation theory of banking and its implications in order to be in a position to deliberate on the Bill in a fully informed and valid manner. (Please refer to Attachments 1, 2 and 3 by Professor Werner).

### **Recommendation 5**

The Committee request the Banking Royal Commission to investigate the policy and regulatory implications of the Bank of England's revelation that banks create new money as credit when writing a loan and do not intermediate as previously believed.

## SUPPORTING EVIDENCE

### Bail-ins

The Committee will no doubt be aware of the origins of the bail-in concept originally raised at the G20 meeting in London in 2009 and adopted at the G20 meeting in Brisbane in 2014.

The reality of bail-ins first hit home with the financial crisis in Cyprus in 2013. Savings deposits in the Bank of Cyprus received a 47.5% 'haircut' on amounts over the EU 100 000 euro deposit guarantee. With the exception of some insured deposits, a further 4.3 billion euros were lost with the failure of the Laiki Bank. Subsequently there has been bail-ins in Italy, Portugal and Austria.

According to Geoff Mortlock (who has many years of financial sector experience and expertise, including 5 years as a Senior Manager with the Australian Prudential Regulation Authority and 24 years with the Reserve Bank of New Zealand), New Zealand already has bail-in provisions but with no government guarantee to protect a proportion of savings.

<https://www.stuff.co.nz/business/opinion-analysis/78727017/How-safe-are-your-deposits-if-a-bank-fails> .

The evidence is that there is no doubt of the reality that savings above the government guarantee are potentially at risk from bail-in provisions.

The Financial System Inquiry (FSI) addressed the matter of crisis resolution measures. Its Final Report (2014) under Recommendation 3 stated:

The Inquiry intends that this framework would only include specific liabilities and not deposits. Deposits are protected by a guarantee under the FCS of up to \$250,000 per account holder per ADI and by depositor preference. In Australia, deposits are not and should not be subject to bail-in (emphasis added). <http://fsi.gov.au/publications/final-report/chapter-1/loss-absorbing/>

However, the Government response to Recommendation 3 provides little comfort:

*We endorse APRA as Australia's prudential regulator to implement this recommendation in line with emerging international practice.*

International practice so far does include savings deposits and therefore this statement is suggestive that Australia intends to follow suit against the advice of the FSI.

Additionally, the Bill and Explanatory Memorandum provide little comfort with no specific reference to bail-ins while granting APRA unspecified wide ranging discretion in managing crisis resolution hidden behind the screen of secrecy provisions.

Including bail-ins in the crisis resolution toolbox is imprudent as the spectre of bail-ins is likely to spook depositors and increase financial instability. Imagine the effect of headlines along the lines of "Is Your Money Safest Under the Mattress?" once the Bill becomes legislation without explicitly quarantining savings deposits from bail-in provisions.

Amending the Bill to include the explicit exclusion of savings deposits from bail-in provisions would be a step in the right direction. However this will not address the problem of banks

gambling with depositors' savings due to the lack of separation between commercial and investment banking and the increased level of instability this generates.

If the Government is serious about increasing the stability of Australia's financial system which is becoming ever more highly geared then the introduction of a Glass-Steagall separation of commercial and investment should be considered by the upcoming Banking Royal Commission.

Citizens need a guaranteed safe and secure repository for their hard won savings particularly in times of increasing potential financial instability as is the case at present. If the Bill becomes legislation and private banks are no longer able to provide this then the Government should consider the establishment of a safe savings facility with the Reserve Bank of Australia.

### **Recommendations regarding Bail-ins and security of savings**

#### **Recommendation 1**

That the Bill be amended to explicitly state that savings deposits are quarantined from any bail-in provisions.

#### **Recommendation 2**

The Committee request the Banking Royal Commission to investigate the introduction of Glass-Steagall provisions to separate commercial and investment banking as per the original Glass-Steagall Act 1932 to assist in the protection of savings deposits.

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### **Theoretical Considerations Regarding Prudential Regulation**

As the Committee will be aware the Bank of England effectively reframed the theoretical understanding of how the financial system actually works in *Money Creation in the Modern Economy* (Bank of England 2014). The reasons for presenting this to the Committee are twofold.

First in order for the committee to meaningfully deliberate on these matters it is helpful (and arguably essential) to understand that the current regulatory regime is based on the erroneous theoretical perspective that banks intermediate existing money rather than lending new money into existence as credit. Prudential regulation based on the erroneous perspective of intermediation is largely responsible for the GFC. The necessity for crisis resolution measures arises largely from this failure to understand how the financial system actually works in reality and to manage it accordingly.

Second I assume that your Committee has the standing to refer these insights to the Banking Royal Commission in order that Australia can reconsider the design of the Australian financial system and its prudential regulation in order to be ready to implement such changes when the next GFC inevitably occurs and thereby implement soundly based

measures to protect the savings and mortgaged assets of the citizenry and provide a sound basis for economic reconstruction in the wake of such an event.

The first credible public sign that the prevailing theory of finance was invalid emerged when Alan Greenspan, former head of the United States Federal Reserve Bank, appeared before the US House of Representatives Committee on Oversight and Government Reform on 23rd October 2008 to explain the GFC.

During the hearing Greenspan admitted the model that guides economic thinking about the financial system is flawed:

Greenspan: "I found a flaw in the model that I perceived is the critical functioning structure that defines how the world works, so to speak."

Waxman: "In other words, you found that your view of the world, your ideology, was not right, it was not working,"

Greenspan: "Precisely, that's precisely the reason I was shocked, because I have been going for 40 years or more with very considerable evidence that it was working exceptionally well."

[https://www.pbs.org/newshour/amp/show/business-july-dec08-crisishearing\\_10-23](https://www.pbs.org/newshour/amp/show/business-july-dec08-crisishearing_10-23)

The clearest and most detailed exposition to date of the financial theoretical landscape and the implications of the various theories and their explanatory powers appears to be the works of Professor Richard A. Werner, Chair in International Banking, Director, Centre for Banking, Finance and Sustainable Development at the University of Southampton, UK. According to his staff profile on the University website which evidences his credibility:

Richard proposed the Quantity Theory of Credit in 1992, which argues that bank credit creation for GDP transactions determines nominal GDP growth, while bank credit for non-GDP transactions causes asset price boom-bust cycles and banking crises.

In 1995, he proposed a new monetary policy to expand bank credit for the real economy, which he called 'quantitative easing'. His book 'Princes of the Yen' (2003) became a no. 1 bestseller in Japan, beating Harry Potter for six weeks. In the English version Richard warned that the European Central Bank (ECB) was likely to create credit booms, asset bubbles, banking crises and recessions in the eurozone (a documentary movie about the book was launched in 2014).

His 2005 book 'New Paradigm in Macroeconomics' (Palgrave Macmillan) warned of the recurring banking crises following asset bubbles and suggested workable solutions. Since the crisis, his approach to disaggregate bank credit and focus on bank credit for the real economy to model nominal GDP growth has found supporters among a number of central banks. His co-authored book *Where Does Money Come From?* has attracted much attention and citations, including by the Bank of England.

In 2014, Richard published the first empirical test of the various theories of banking, demonstrating for the first time in the history of banking that banks do not lend money, but instead newly create credit and money.

Some of Richard's work featured prominently in the financial press, attracting interest, among others, from Alan Greenspan. Richard has appeared frequently on Japanese and international television commenting on economic and financial affairs. In 2003, the World Economic Forum, Davos, selected him as 'Global Leader for Tomorrow'. <https://www.southampton.ac.uk/business-school/about/staff/werner.page>

### **Three competing theories of banking**

According to Werner (2014):

Over the past century and a half, three competing theories of banking have been influential - the financial intermediation, the fractional reserve and the credit creation theories of banking. Most current models, theories and textbooks in finance and economics assert the validity of the financial intermediation theory. According to it, banks do not have the ability to create money, neither individually (as the credit creation theory argues) nor collectively (as the fractional reserve theory maintains). Recently ... the Bank of England has come forward clearly in support of the credit creation theory. (Werner, 2014, p. 71).

### **How banking actually works**

The key points redefining our understanding of how banking actually works are spelled out in *Money Creation in the Modern Economy* (Bank of England 2014) as follows:

- Rather than banks receiving deposits when households save and then lending them out, bank lending creates deposits. (p. 14)
- In normal times, the central bank does not fix the amount of money in circulation, nor is central bank money 'multiplied up' into more loans and deposits... (p. 14)
- Rather than banks lending out deposits that are placed with them, the act of lending creates deposits — the reverse of the sequence typically described in textbooks... (p. 15)
- While the money multiplier theory can be a useful way of introducing money and banking in economic textbooks, it is not an accurate description of how money is created in reality... (p. 15)
- As with the relationship between deposits and loans, the relationship between reserves and loans typically operates in the reverse way to that described in some economics textbooks. (p. 15)

These points demonstrate that banking actually works largely at odds with how it was (and still largely is) believed to work.

### **Economic modelling assumes banks don't exist**

Economic modelling assumes banks don't exist based on the erroneous belief that as mere intermediaries they are neutral having no effect on how an economy operates. Werner (2012) elaborates:

While economists seem to have taken the brunt of the public critique triggered by the crisis, researchers in the fields of banking and finance also failed in delivering prescriptions, tools and recommendations for appropriate regulation, supervision and risk management to avoid banking crises. A fundamental problem seems to be the very separation of disciplines into economics on the one hand, with the potential to capture systemic and macroeconomic aspects, and finance and banking on the other, with the potential to model banks in detail. The separation allowed the systemic importance of banks to remain unnoticed: The economists have tended not to model the financial infrastructure and banking, and the finance and banking researchers have tended not to be concerned with macroeconomic effects of the collective behaviour of financial intermediaries. Focusing on microeconomic studies of representative financial institutions, they neglected the systemic effects of individual bank behaviour that may affect the entire economy and thus generate important feedback to financial intermediaries. Both disciplines had developed in a way that blindsided them concerning banking crises. (Werner, 2012, p. 2).

### **‘Credit creation’ mentioned only 19 times in 3882 Central Bank publications**

It beggars belief that there are almost no references to ‘credit creation’ in thousands of central bank research publications. As Cheng and Werner (2015) show:

... among the 3882 research papers produced and made available online by five major central banking research outlets (Federal Reserve Board Washington, Federal Reserve Bank of New York, Bank of Japan, European Central Bank, Bank of England) in the two decades to 2008, only 19 articles even included the words ‘credit creation’. Of these, only 3 seemed to use the term in the correct sense of bank creation of credit and money. (Werner, 2016, p. 376).

### **Implications of credit creation theory of banking for policy and regulation**

The question whether a bank lends existing money or newly creates the money it lends has major implications for monetary and macroeconomics, finance and banking, as well as government policy. The following section is a brief overview of the learnings from the credit creation theory of banking perspective for banking policy and regulation drawn primarily from the works of Werner (2012, 2014, 2016).

### **Why regulation via reserve requirements and capital adequacy failed**

A summary of Werner’s (2016) explanation of the failure of traditional regulatory measures is now presented:

The implications of our empirical findings are far-reaching for bank regulation and the design of official policies. Bank regulation is based on the prevailing understanding of the role of banks. During the past forty years when the financial intermediation theory of banking has been dominant, bank regulation has focused on capital adequacy. During the earlier thirty years or so, when the fractional reserve theory of banking was dominant, reserve requirements featured as the main way to regulate bank activity. Neither has been successful. (Werner, 2016, p. 374)

### **Regulation via reserve requirements**

Bank regulation centred on reserve requirements was based on, and theoretically supported by, the fractional reserve theory of banking. It was found, however, that

this regulatory policy was impracticable for central banks to operate (Goodhart, 1989). In this paper we have identified just why this had to be the case: the fractional reserve theory of banking is wrong. An analysis of bank accounting shows that banks' reserves with the central bank never leave the accounts of the central bank: like 'deposits' of the public with banks (which in reality are simply records of units of accounting money owed by banks to the public), 'reserves' by banks at the central bank are simply accounting records of money units owed by the central bank to the banks. Such indebtedness does not directly result in money circulating in the economy, except when it is due to a demand for legal tender cash (Ryan-Collins et al., 2011). To make central bank expansionary monetary policies more effective, it would thus be sensible to expand the role of cash – although, surprisingly, today central bankers are calling for its abolition (Haldane, 2015). As reserve requirements were not an effective policy tool, they have gradually been de-emphasised. Some central banks, such as the Bank of England and the Swedish Riksbank, have abolished reserve requirements altogether. (Werner, 2016, p. 374).

### **Regulation via capital adequacy**

In parallel with the policy to de-emphasise reserve requirements in bank regulation, central banks, via their influence on the Basel Committee on Banking Supervision, have shifted towards regulating banks using capital ratios. This approach is predicated on the veracity of the financial intermediation theory, which had been increasingly supported by central banks. As financial intermediaries, banks cannot, individually or in aggregate, increase the money supply available as potential bank capital. Hence imposing capital requirements on banks appears to be a viable way to keep their actions within limits. The contradiction is that, if banks were only financial intermediaries, their actions could hardly have a significant macroeconomic impact in any case, rendering such regulation unnecessary. It seems, once again fundamental facts concerning banking have been overlooked. In reality the money supply is “created by banks as a by-product of often irresponsible lending”, as journalist Martin Wolf called it (Wolf, 2013). Thus the ability of capital adequacy ratios to rein in expansive bank credit behaviour is limited: imposing higher capital requirements on banks will not necessarily stop a boom-bust cycle and prevent the subsequent banking crisis, since even with higher capital requirements, banks could still continue to expand the money supply, thereby fuelling asset prices: Some of this newly created money can be used to increase bank capital (Werner, 2010). This was demonstrated during the 2008 financial crisis. (Werner, 2016, p. 374).

### **Explaining recurring banking crises**

The following excerpts from Werner (2012) explain recurring banking crises from the perspective of the credit creation theory of banking:

Many empirical papers have found that banking crises follow a build-up of asset prices (e.g. Englund, 1999; Allen, 2001; Borio and Lowe, 2002; Reinhart and Rogoff, 2009). There has however not been a convincing reflection of this relationship in macroeconomic models (partly because banks do not usually feature). (Werner, 2012, p. 15).

...asset inflation is caused by the creation of credit (and hence new money) by banks for asset transactions. This boosts asset prices, but their continued rise is predicated



on continued credit creation for asset transactions. As soon as this is not forthcoming sufficiently, asset prices must be expected to fall, which will render speculators out of pocket and asset loans nonperforming. (Werner, 2012, p. 15).

Due to the modest capital cushion in banking, a mere 10% drop in the present value of the loan portfolio (e.g. due to non-performance) would tend to wipe out the majority of equity, rendering banks technically bankrupt (*banca rotta*), the banking system subject to either runs or avoidance in the inter-bank market - both of which leave banks unable to operate. (Werner, 2012, p. 16).

Referring to the situations in Ireland, Spain, Portugal and Greece, Werner (2012) states:

Each time the fundamental cause of the current predicament was bank credit growth in excess of 20% for several years, creating property and financial bubbles that boosted also tax revenues to such an extent that governments kept expanding their budget forecasts. When the credit bubble ended, costs ballooned and tax revenues vanished. National bankruptcy loomed. (Werner, 2012, p.19).

The question about causation and responsibility thus hinges on the question of who was responsible for the rapid expansion in bank credit creation. The answer is unambiguous. To monitor and contain bank credit creation in the eurozone is the core responsibility of the central bank. (Werner, 2012, p.19).

The fact that asset prices are in aggregate determined by bank credit creation yields another important insight: the extension of credit for non-GDP transactions, if large and sustained enough, will produce a Ponzi scheme, whereby early entrants (those buying those assets that are driven up by bank credit creation), have a chance to exit with profits, while the late entrants (usually the broader public, buying at close to the peak of an asset bubble, as the media comes to focus on the phenomenal profits made by earlier entrants) will lose. The reason why credit for non-GDP transactions must be a Ponzi scheme is that only GDP transactions – as national income accountants know - generate the value that can yield income streams to service and repay loans. Thus any gains made from selling assets that have risen constitute a zero-sum game, whereby they are merely transfers from the losers. Credit creation for non-GDP transactions is thus inherently unsustainable, and if large enough results in major bankruptcies, banking crises and massive resource misallocation. (Werner, 2012, p. 16).

### **Empirically successful bank regulation**

Given these dangers of credit for non-GDP transactions it is reasonable to contemplate how to avoid asset inflation and banking crises, or consumer price inflation for that matter. It is commonly held among economists and the public that the process of money creation should be performed in a prudent manner. Since most commentators assume that this task is performed only by the central bank, bank credit growth and the decisions of banks as to who obtains the newly created money have often escaped attention. Once we recognize that banks are the creators of the bulk of the money supply, it stands to reason that some kind of responsibility goes with this privilege. Hence banks should monitor – ideally following specific rules – the quantity and quality of their credit creation. (Werner, 2012, p. 16).

According to Werner (2012) “asset inflation and boom/bust cycles – and hence systemic banking crises – can be avoided if banks do not extend credit for asset transactions.” He elaborates:

credit of the type that increases productivity or the amount of goods and services available in the economy is less likely to produce consumer price inflation than credit creation in the form of consumer loans. We can thus usefully distinguish between productive, speculative and consumptive credit creation and its monitoring can serve to predict and prevent undesirable outcomes caused by credit creation. This is a distinction that has been used in the German-language literature almost a hundred years ago, but even some mainstream economists have been aware of it. (Werner, 2012, p. 16).

For example he cites Greenspan (1967):

When banks loan money to finance productive and profitable endeavors, the loans are paid off rapidly and bank credit continues to be generally available. The excess credit which the Fed pumped into the economy spilled over into the stock market - triggering a fantastic speculative boom. (Werner, 2012, p. 16).

### **Regulation depends on whether bank credit is for productive, consumptive, or speculative purposes**

According to Werner (2014):

Through the process of credit creation 97% of the money supply is created in the UK today (Werner, 2005), and similar proportions apply to most industrialised economies. Not surprisingly, the use to which bank credit is put to determines its effect, namely whether bank credit is extended for productive, consumptive, or speculative purposes. (Werner, 2014, p. 12).

### **Regulation to avoid banking crises**

According to Werner (2012):

banking crises can be avoided if bank credit is mainly used for transactions that are part of GDP, ideally for investment purposes ('productive credit creation'). Werner (2005) has suggested to do this either via regulation (the government or central bank imposing regulations on banks restricting credit creation for transactions that do not contribute to GDP), or via the design of the banking structure such that it is dominated by banks that tend not to engage in credit creation for non-GDP transactions (such as small, locally headquartered banks, including municipality-owned banks and credit unions, which account for about 70% of the banking market in Germany), as Werner (2011) has argued. The design of a resilient, sustainable financial architecture must thus incorporate a mechanism that either discourages the extension of bank credit for non-GDP transactions (via the design of the structure of the banking sector, as has been the case in Germany) or establish a macro-prudential supervision, for instance operated by the central bank, which restricts credit for non-GDP transactions (as operated in East Asian economies in the form of 'window guidance', itself a policy introduced from pre-1945 Germany, see Werner, 2002). (Werner, 2014, p. 18).

### **Werner's conclusion**

Banking crises and the asset bubbles that precede them are avoidable, if the right financial and monetary policy architecture is implemented – namely one that discourages the creation of credit for transactions that do not contribute to GDP (financial and asset transactions). This can be done via regimes of 'credit guidance' or, as shown in Germany, the design of the banking sector architecture. (Werner, 2012, p. 27).

#### **Recommendation 4**

The Committee appraise itself of the credit creation theory of banking and its implications in order to be in a position to deliberate on the Bill in a fully informed and valid manner.

#### **Recommendation 5**

The Committee request the Banking Royal Commission to investigate the policy and regulatory implications of the Bank of England's revelation that banks create new money as credit when writing a loan and do not intermediate as previously believed.

#### **References**

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Werner, R. A. (2012). Applying the Quantity Theory of Credit: The role of the ECB in the propagation of the European financial and sovereign debt crisis and the policy implications. [http://www2.euromemorandum.eu/uploads/werner\\_qtc\\_ecb\\_and\\_policy.pdf](http://www2.euromemorandum.eu/uploads/werner_qtc_ecb_and_policy.pdf)

Werner, R. A. (2014). How do banks create money, and why can other firms not do the same? An explanation for the coexistence of lending and deposit-taking. International Review of Financial Analysis, 36, 71-77. <http://www.sciencedirect.com/science/article/pii/S1057521914001434>

Werner, R. A. (2016). A lost century in economics: Three theories of banking and the conclusive evidence. International Review of Financial Analysis 46 (2016) 361-379. <http://www.sciencedirect.com/science/article/pii/S1057521915001477>

#### **Attachments**

##### **Attachment 1**

Werner, R. A. (2012). Applying the Quantity Theory of Credit: The role of the ECB in the propagation of the European financial and sovereign debt crisis and the policy implications.

##### **Attachment 2**

Werner, R. A. (2014). How do banks create money, and why can other firms not do the same? An explanation for the coexistence of lending and deposit-taking. International Review of Financial Analysis, 36, 71-77.

##### **Attachment 3**

Werner, R. A. (2016). A lost century in economics: Three theories of banking and the conclusive evidence. International Review of Financial Analysis 46 (2016) 361-379.