



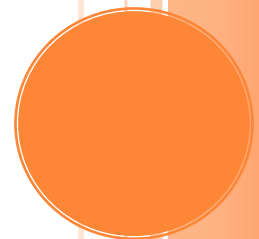
MACROECONOMIC
Analysis & Policy Studies

**The Impending Crisis:
An SFB Analysis of Australia's Economy**

Student Research Internship Report

Avdhoot Bharati

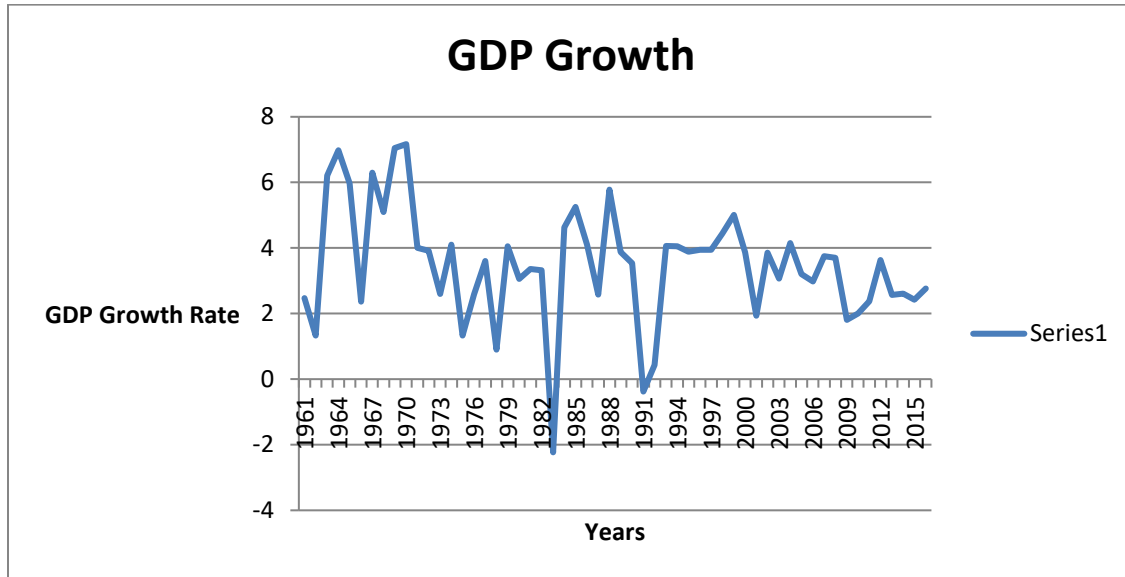
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The Impending Crisis: An SFB Analysis of Australia's Economy

Avdhoot Bharati¹

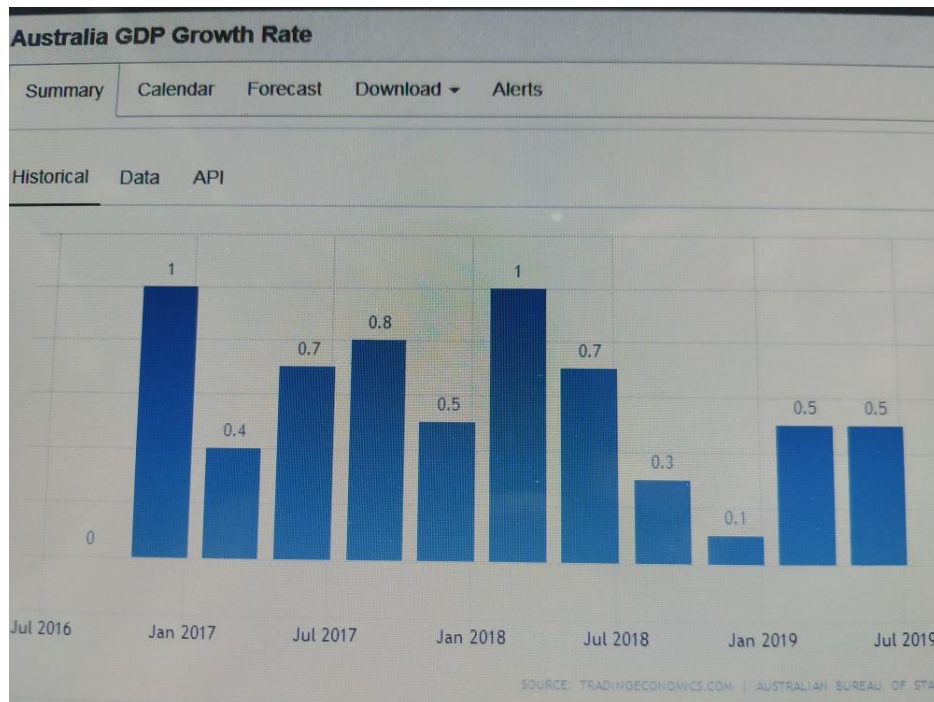
The scope of this paper is to do an SFB analysis and understand what could be the structural reasons that could be leading the Australian economy to a crisis and what policy approaches could be adopted if we were to follow a MMT perspective.



Source: World Bank. (<https://data.worldbank.org/indicator/ny.gdp.mktp.kd.zg>)

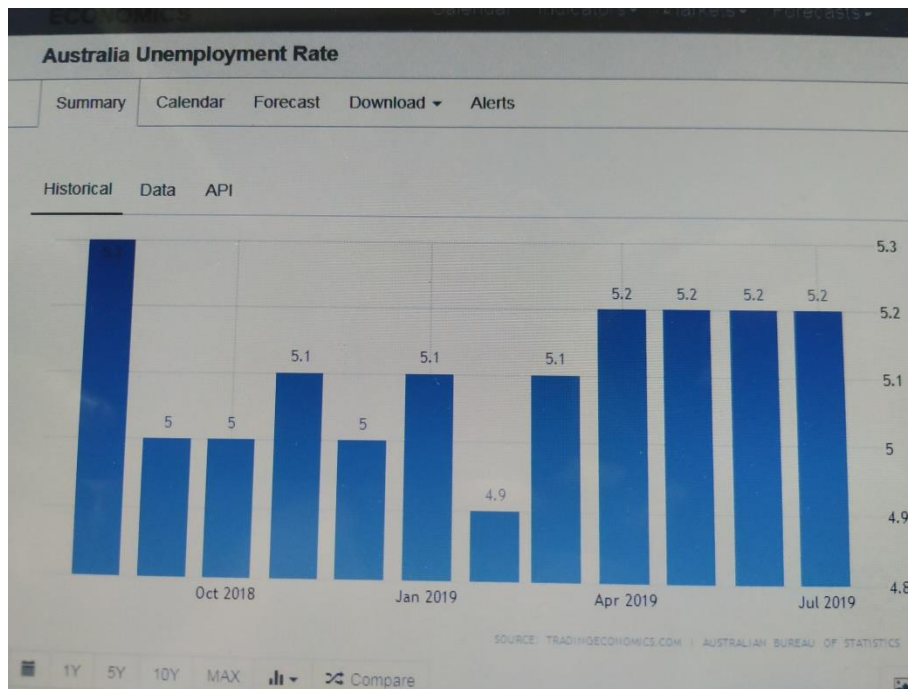
There are certain key things to note from this graph. The first one is the massive spurt the economy takes in the early 80s. After financial deregulation, due to structural reasons, the private sector was able to massively leverage, and that was shown in the soaring growth rates. And it has remained at a high level post deregulation, generally. But it is important to look at the recent growth trends more closely. From the last decade, the growth rate seems to be tapering off. Is it because the private sector is deleveraging, and if so why? Or are the repercussions of the external sector? There could be various reasons for it and only a sectoral analysis could lead us into the correct direction.

¹ Summer 2019 Intern at the Foundation to Aid Industrial Recovery (FAIR). The views expressed are the author's and not of FAIR.



Source: Trading Economics (<https://tradingeconomics.com/australia/gdp-growth>)

In-fact this is the latest data that we have and the slowing down of the growth does force one stop and look at it. The whole of 2019 hasn't seen a growth rate higher than 0.5%. But what is more concerning is the decreasing contribution of the private sector towards G.D.P growth. On the latest quarter's data, Swati Pandey writes that "private consumption contributed just 0.1% to overall growth." The article further points out what Andrew Hanlan has said "Notably, there is a stark divide between private demand and public demand," Westpac economist Andrew Hanlan said in a note. "Proof that the private sector now is deleveraging massively and that the economy is heading toward a recession. This is just giving us a glimpse of the trend that the economy is moving towards. But what are the structural reasons that could be leading to such slow down?"



Source: Trading Economics (<https://tradingeconomics.com/australia/unemployment-rate>)

In the recent years unemployment too has been on a rise. It further points to a crisis that might be an impending crisis that the economy might be heading towards. In their description of the recent unemployment rate, trading economics published in one article “Australia's seasonally adjusted unemployment rate was unchanged at 5.2 percent in June 2019, remaining at its highest level since August last year and matching market expectations.”²

Both these pieces of statistic point out that the economy might be contracting, and specifically, the private sector may be decreasing demand. In SFB terms, we would say that the private sector is deleveraging. Now, if we assume that the key goal of the economy must be to ensure net financial asset accumulation of the private sector; in other words, if we say that private sector – which is really the households, the people, are able to maximize their assets over time. If this is idea of welfare is at the core of our vision, then we must say that the Australian economy is not on the right path.

We would try to give certain policy perspectives on dealing with the situation based on a Modern Money Theory (MMT) approach. It is an approach which defines money as “a

² “Australia Jobless Rate Steady at Highest Since August 2018,” *Trading Economics*, n.d., <https://tradingeconomics.com/articles/07182019021905.htm>.

chartal means of payment”³ Money is the creation of the state. Or to extend it, would be to say what Randall Wray says, that money is a “creation of legislative policy.”⁴ This definition guides us to a something called functional finance which really defines the role of taxation and in-fact our whole conception of the state or the government itself. And therefore, what we must understand as a good governance or policy. This we will elaborate in further sections. For the moment, suffices to note that It is the acceptability of the state money that is guiding the whole process. Elaborating specifically on the nature of state money, Wray says “even state money is credit money it is a special kind of credit, redeemed by taxation.”⁵ This again leads us to the whole point of taxation and how might we see it. This will be focus on in the section we focus on policy prescriptions.

To reiterate, the focus of the paper would be to analyze what could be the reasons behind the delivering of the private sector and what repercussions it has on the economy, and then hopefully point out some policy measures to help tackle it.

Initially, as we are doing an SFB analysis, so we must understand the model’s structure before we apply it.

The Sectoral Financial Balances (SFB) Model

Drawing from Sashi Sivramkrishna’s book –Maximum Government, Maximum Governance, we can describe the Sectoral Financial Balances (SFB) Model that was developed by Wynne Godley. The model considers the economy as a three sector one. We have the private sector, the government sector and the External sector. Of course, the external sector can be said to be the combination of the private sector and the government sector of the rest of the world.

Now the fundamental equation that the model operates on is that, the net financial asset accumulation of all the three sectors must be equal to zero.

Mathematically,

(S-I) or (I-S) Is the private sector’s net financial asset accumulation (NFAA)

(G-T) or (T-G) Is the government’s NFAA

(X-M) or (M-X) Is the external sector’s NFAA

³ L. Randall Wray, “From the State Theory of Money to Modern Money Theory: An Alternative to Economic Orthodoxy” (Levy Economics Institute of Bard College ., March 2014).

⁴ Wray.

⁵ Wray.

$$(S-I) + (T-G) + (M-X) = 0 \dots\dots\dots (1)$$

Where, S = private sector financial savings, I = private sector investment, T = tax revenues of the government, G = government spending, M = value of imports and X = value of exports.

Now, the implicit thing behind this equation is the simple theory of double entry book keeping, which says that someone's financial assets must be someone else's liabilities. Let us for simplicity now assume that there are two sectors the government sector and the private sector.

Then it follows from 1 that,

$$S-I + (T-G) = 0 \dots\dots\dots (2)$$

Now let us assume that

$$S-I > 0$$

So, for 2 to hold true,

$$(T-G) < 0$$

Must necessarily be true.

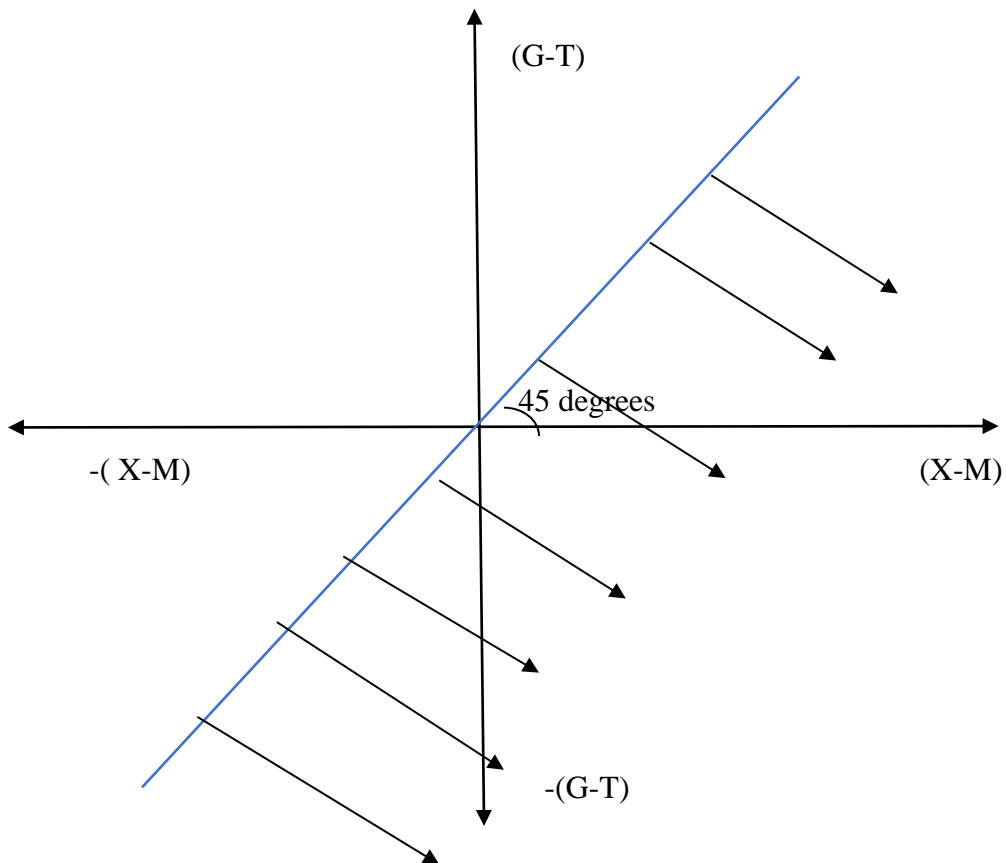
In other words, if there has to be net financial asset accumulation of the private sector, it must correspond to an accumulation of net financial liabilities.

We can now add (X-M) to the same equation and then see what that implies. If (X-M) > 0. That means, the domestic private sector is accumulating financial assets. Conversely, if (X-M) < 0, or of (M-X) > 0, then the foreign private sector or /and the foreign govt. sector is accumulating financial assets. And therefore, either the government sector or the domestic private sector, or both the sectors, are accumulating financial liabilities.

Thus, by rearranging (1) we get –

$$S-I = (X-M) + (G-T) \dots\dots\dots (3)$$

The SFB Template



We can map a SFB equation into a four quadrant template. Here the X axis represents current account balances and the Y axis represents fiscal balances. So the 1st quadrant – where the X axis is positive and Y axis is also positive, it means that we have a current account surplus and a fiscal surplus as well. Similarly, for the 4th Quadrant where we have both the X and Y axis as negative, it means that we are at a position where we have a current account deficit as well as a fiscal deficit.

Now the line SI that passes through the origin at 45 degrees is the line where at all points, value of X and Y are the same, in other words the Current Account balance and the Fiscal Account balance are equal. Extending this, we can say that all points on this line $S-I = 0$ (from 3). Let us now take any point to the right of the SI line say where Current Surplus = 6 and Fiscal Surplus = -2

Then from (3),

$$S-I = 6-2 = 4$$

In other words, the domestic sector is accumulating net financial assets. Similarly, for all the shaded area, which is to the right of the line SI, $S-I$ is greater than 0, in other words the private sector is accumulating net financial assets. Similarly, to the left of the line, all the points are such that $S-I < 0$. Which means that all the sectors are accumulating net financial liabilities.

All these things do hold true given the assumptions hold. However, we must be careful in not placing the SFB equation as a model establishing cause and effect. However, having said that what it does is that if it is used alongside an analysis of the relevant macroeconomic parameters, maintaining stock and flow consistencies, it can help us in understanding the nature of the problem that the Australian economy might be going through and what the government can do to tackle that.

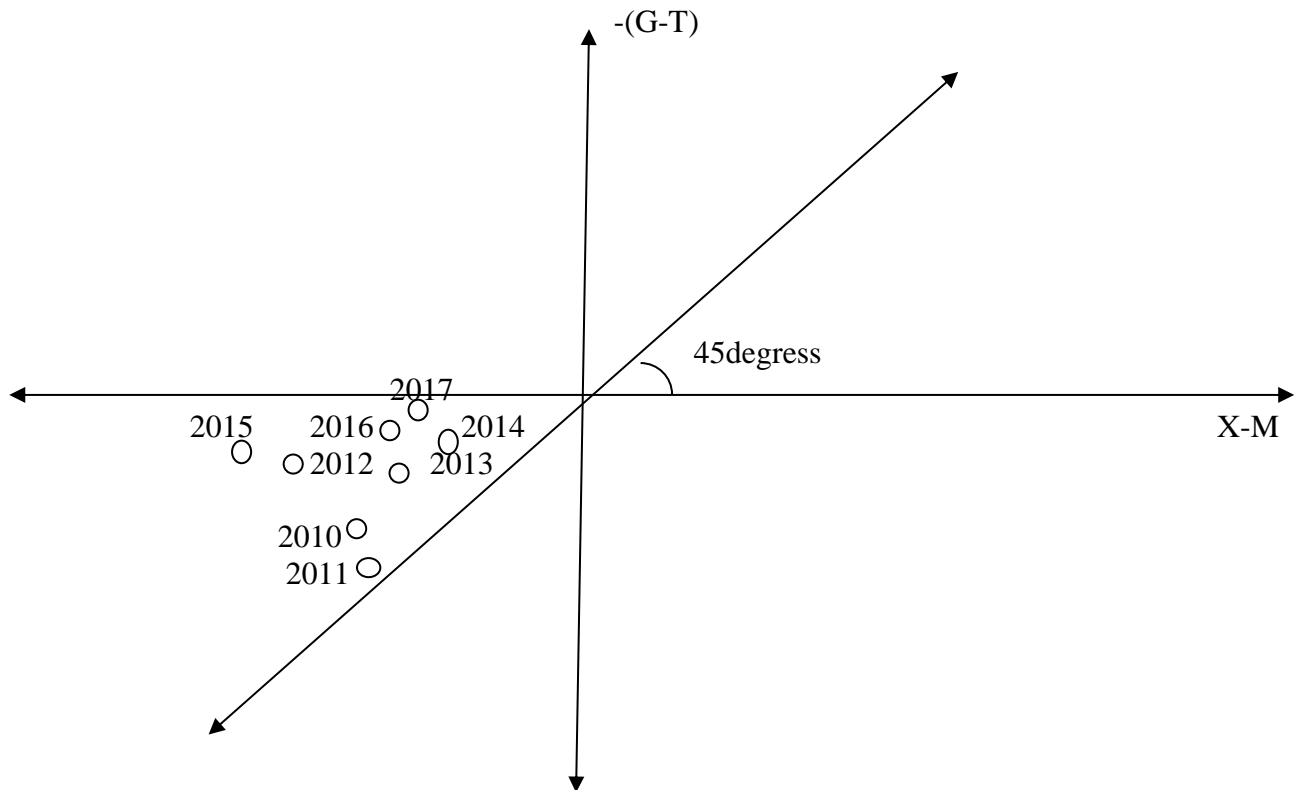
A Look at the SFB Equation for Australia

Year	(X-M)	(G-T)	(S-I)
1989	- 6.127300442	- 2.089626893	-8.216927335
1990	- 4.996935719	- 3.316741983	-8.313677702
1991	- 3.253693877	- 5.801630081	-9.055323958
1992	- 3.174515119	- 6.180886502	-9.355401622
1993	- 2.981912588	- 4.421871679	-7.403784267

1994	- 4.923334598	- 4.152521296	-9.075855894
1995	- 5.083988686	- 2.905047204	-7.989035891
1996	- 3.598462169	- 1.128777524	-4.727239693
1997	- 2.740766073	0.173440776	-2.567325298
1998	- 4.457399292	0.724190144	-3.733209148
1999	- 5.611735575	2.001485271	-3.610250304
2000	- 3.731565465	- 1.234068867	-4.965634332
2001	- 2.111745052	-0.75796848	-2.869713532
2002	- 4.056469928	0.712769676	-3.343700251
2003	- 6.285238005	0.810532392	-5.474705613
2004	- 6.747289409	0.942353999	-5.80493541
2005	- 6.257628267	1.66373955	-4.593888717
2006	- 6.078774523	1.655265587	-4.423508936
2007	- 7.531198415	0.720199301	-6.810999113
2008	- 4.951779356	- 3.745362637	-8.697141992
2009	- 5.278050685	- 5.559436556	-10.83748724
2010	- 3.907697961	- 4.461458314	-8.369156275
2011	- 3.186672049	- 4.615200959	-7.801873008
2012	- 4.177948032	- 2.885816442	-7.063764474
2013	- -3.04204339	- 2.844175586	-5.886218976
2014	- 2.962369733	-2.32985634	-5.292226073
2015	- 4.252164007	- 2.429772062	-6.681936068
2016	- 3.410206217	- 1.844759344	-5.254965561

○

2017	- 2.701929962	- 0.840732272	-3.542662234



The SFB data mapping is only possible post 1989 or in other words we can only map the SFB equation post financial deregulation, and we cannot say anything of the times before regulation. However, there are certain trends, which are pretty clear to us. Firstly, and most importantly, the private sector has been accumulating financial liabilities consistently throughout the post deregulation phase. The private sector has leveraged massively in this

period and a major indicator has been the accumulation of household debt, the reasons of which we analyze specifically. For now, it suffices to say that another component of the SFB equation- the external sector is intricately linked to the leveraging private domestic sector. The current account deficit has been consistently below -4 % of GDP – the threshold level set by the EC indicators for a crisis. This of course somewhat ought to be expected post the abolishing of qualitative and quantitative controls. But the question really is how is the massive amounts current account deficit and the leveraging of the private sector tied? And what role does the government sector have in it?

For these answers we would need to analyze the private sector and the external sector.

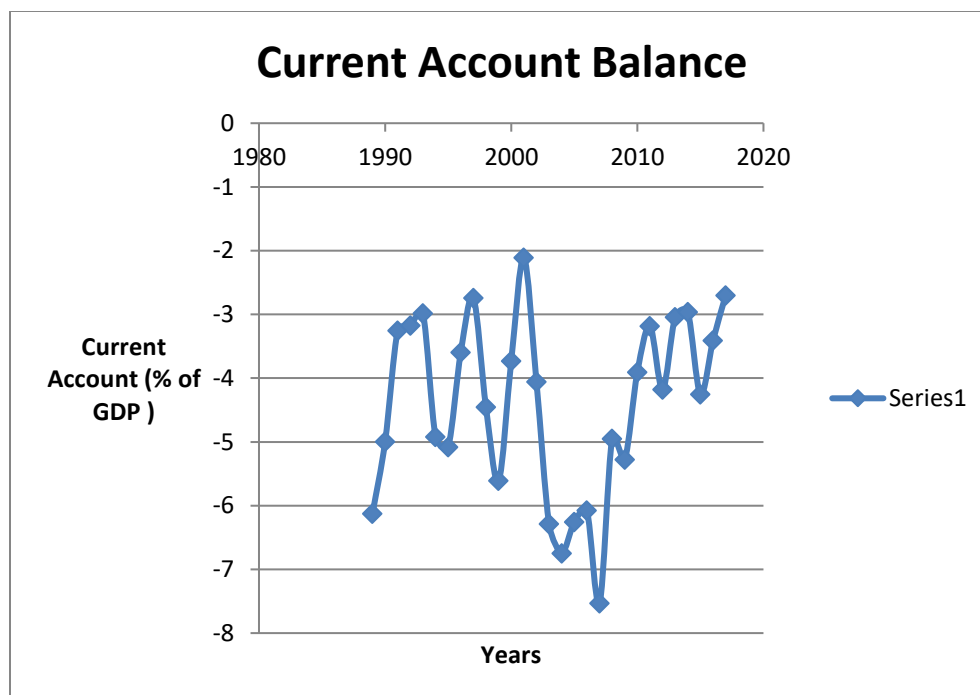
The External Sector

The systematic analysis of the components of the external sector becomes extremely crucial if we are looking at dissecting any impending crisis of the economy. The extent of the necessity to analyze this sector is very bluntly pointed out by Peter Brain and Ian Manning in *Credit Code Red*.

“Of the forty or fifty economic catastrophes that have occurred over the past three decades in countries with developed financial systems, thirty or forty have taken place in countries that have significant overseas debt.”⁶ Hence it becomes very important to analyze the external sector. The analysis, must be done in a compartmentalized way, as mentioned at the beginning of this section. In other words, we must look at certain important facets of the external sector – like the Current Account Balance, the External Debt situation, the volatility of the exchange rate, and also the components of exports and imports and how those might be changing. Of course, these are all connected, and therefore we would try to connect these and present a wholesome picture of what is and what ought to be, in the external sector.

From the MMT framework, the first thing to look at, would be the Current Account Balance. What we refer to as - (X-M) in the SFB equation. The Current Account Balance would give us the indication of the distribution of net assets across the other two sectors - the government, the household mentioned in the SFB equation.

⁶ Peter Brain and Ian Manning, *Credit Code Red: How Financial De Regulation and World Instability Are Exposing Australia to Economic Catastrophe* (Scribe, 2017), https://www.scribd.com/read/350699421/Credit-Code-Red-how-financial-deregulation-and-world-instability-are-exposing-Australia-to-economic-catastrophe#n_search-menu_204951.



Source: (<https://data.worldbank.org/indicator/BN.CAB.XOKA.GD.ZS?locations=AU>)

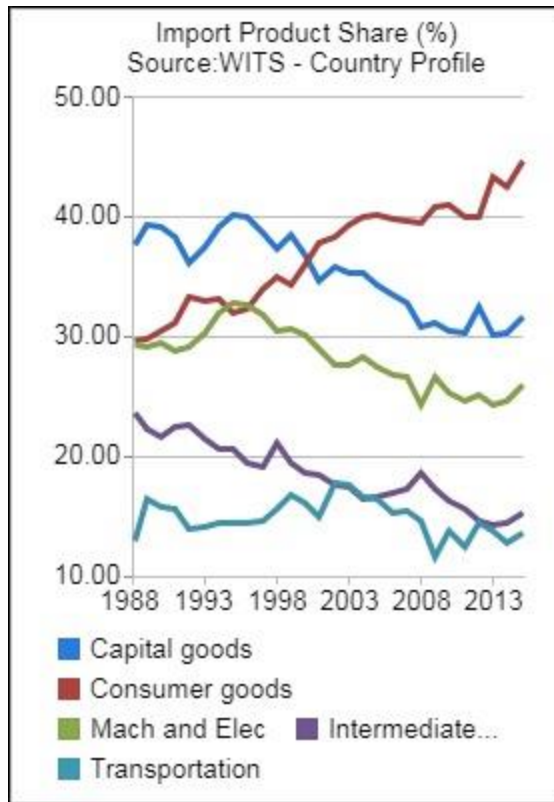
The one caveat that must be applied to the data at the outset is that the data for current account balance as % of GDP is only available for the period post de-regulation. So, this really doesn't capture the massive jump in the current account deficit that was observed post deregulation. The period before financial deregulation, governed by tight regulations primarily through tariffs and quotas. A reflection of this period is given in The Current Account Debate in Australia: Changing Policy Perspectives, when they present that the Australian Current Account deficit was "A persistent current account deficit averaging 3 percent of GDP over the 1960s and 1970s"⁷. This almost doubled up from the 1980s and averaged around 4-6 % of the GDP, as is quite evident from the graph presented above.

Till the late nineties, the current account deficit fluctuated fervently, but the average can say to be declining. In other words, the over deficit as % decreased from more than 6.1 % in 1989 to -2.1% in 2001.

The major reason for the decreasing deficit was the soaring exports caused by the mining boom. However, as is the case with commodity exports, the boom was fraught with lot of volatility owing to the volatility of the prices.

⁷ Jocelyn Horne, "The Current Account Debate in Australia: Changing Policy Perspectives" (Macquarie University, Department of Economics, 2001), <https://pdfs.semanticscholar.org/ffb0/0bdb285cdd2747cd3b4737f8c515af783377.pdf>.

The consumer goods of course were a commodity that were leveraging in total terms as well as in terms of the slope. So, post deregulation, it was really the import of consumer goods that was driving the current account deficits.

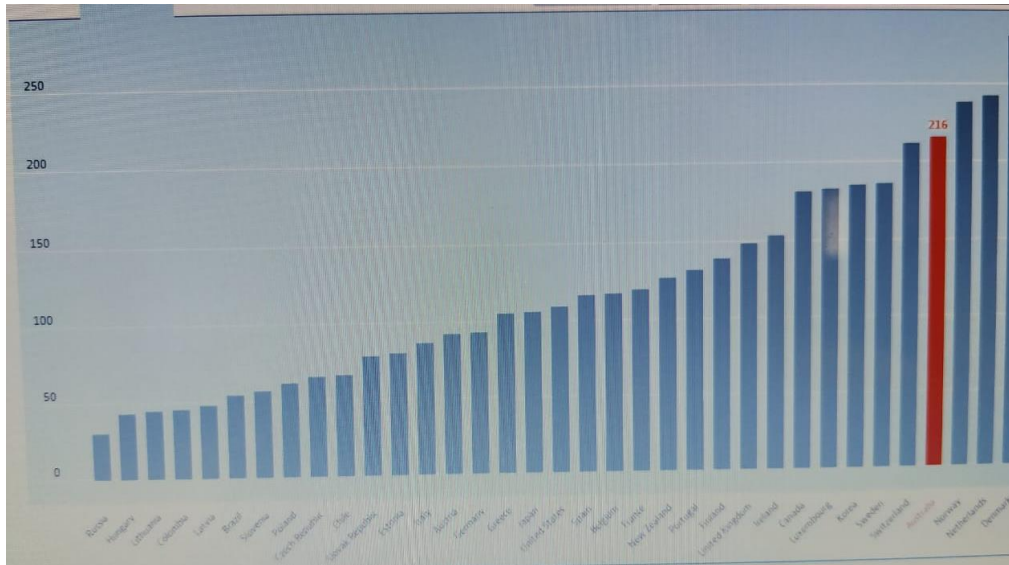


Source: (https://www.iqwidgets.com/export_server/export.php)

Only the consumer goods consumption was increasing. So, when we look at the share of the different components in imports, we can see that the consumer goods line really starts to take off from late 1990s to and soars in the next decade. Thus, it was consumer goods which were driving the deficits in the late 1990s and the decade post that, which we observed in the Current Account Deficit graph.

From an SFB point of view, there is one profound point that this story presents. The humungous increases in consumer goods meant that it was the household sector that was driving the deficits. Which meant that they were leveraging, which really makes us go back to the fundamental axiom that a sector's deficits must be some other sector's surplus. But the question that begs an answer is how was the household sector in such a place where it could leverage so much? –

The shorthand answer is that the Australian economy financed domestic lending through foreign debt which allowed the domestic sector to leverage, as was visible through the booming of consumer goods.



It is showing household debt as % of net disposable income.

Source: OECD website. (<https://data.oecd.org/hha/household-debt.htm>)

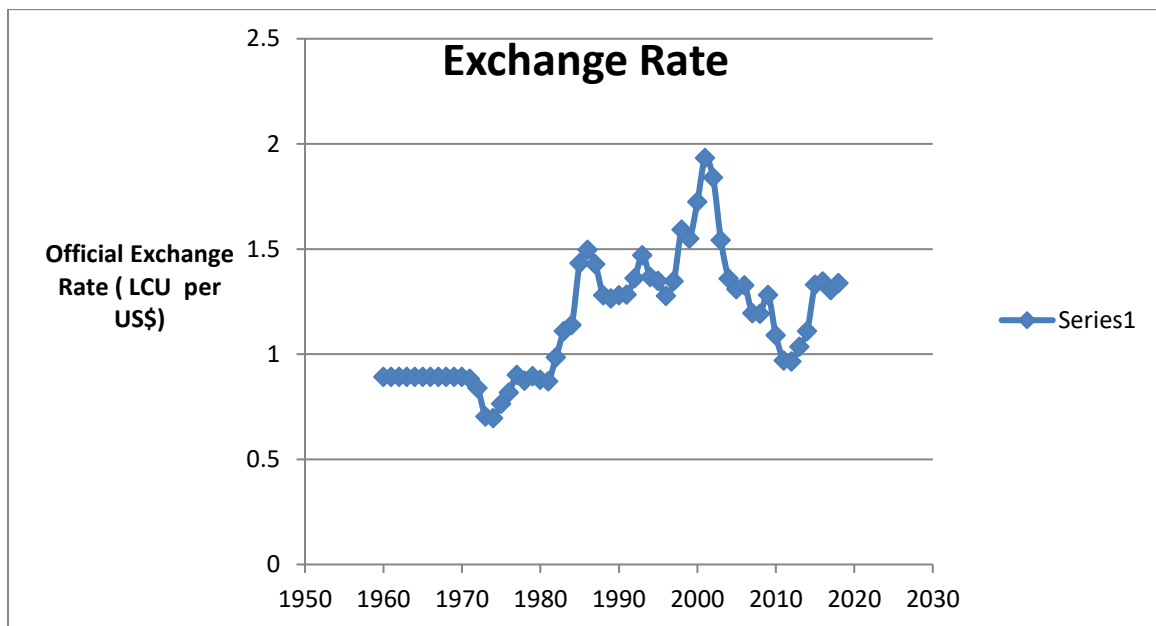
The red bar is indicating Australia’s latest (2018) household debt. It points to the massive amount of debt that the household sector has taken.

This massive amount of debt accumulated by the Australian household was triggered into motion by a particular behavior of the Australian banks wherein on their asset side, they have these domestic loans, but on the liabilities side, they have overseas borrowing. As put forth by Ric Battellino, Deputy Governor of RBA in his speech known as *Aspects of Australia's Finances* “Banks accounted for a little over 20 per cent of Australia's foreign liabilities in 1990 but, by 2001, this had risen to around 40 per cent. It has not changed much in the past decade.”⁸ So, it was primarily through the financial institutions that the external debt became as massive as it became. A direct measure of this is that “Australia’s net overseas debt increased from 32 per cent of GDP to 63 per cent in 2016.”⁹ As pointed out in *Credit Code Red* This piece of statistic is precious. Not just in isolation, to capture, the magnitude of this debt, but also when seen tied with issues like investor confidence and mortgage lending. The reason it needs to be tied with investor confidence is that post financial de regulation, the banks have a garnered a lot of investors from the external sector, which by default means a lot of overseas equity investment. Now, the nature of overseas equity investment is such that “, it can accentuate or dampen domestic price trends; but, unlike portfolio investment in equities, these movements will be multiplied by

⁸ Ric Battellino, “Aspects of Australia’s Finances” (June 15, 2010), <https://www.rba.gov.au/speeches/2010/sp-dg-150610.html>.

⁹ Brain and Manning, *Credit Code Red: How Financial De Regulation and World Instability Are Exposing Australia to Economic Catastrophe*.

resulting trends in domestic debt”¹⁰, remark Peter Brain and Ian Manning in Credit Code Red. Which means that prices are directly proportional to the foreign investors’ confidence. So, it boils down now to the question whether in the case of Australia, this investor confidence will sustain? The external debt situation represented in the table above, with household debts touching record highs, suggests that it is an unlikely phenomenon. Investor confidence is bound to go down with such massive household debts and owing to the nature of overseas equity investment, this is going to have a situation of falling prices in the domestic market. Thus, if we can extract this situation and think in terms of SFB analysis, what we are facing is a situation where the external sector and therefore as a consequence the domestic private (household) sector as well, will deleverage. We will look at the process more deeply when we analyze the household sector in more detail.



Source: World Bank
<https://data.worldbank.org/indicator/PA.NUS.FCRF?locations=AU>

Largely, the trends of the exchange rate can be divided pre and post deregulation. This is marked by the contrast of a fluctuating as compared to a much more stable exchange rate before deregulation. This was of course due to the massive qualitative and quantitative controls that were in place. Post deregulation we see three major trends. One is of appreciating exchange rate, then post the 2000s, the rate secularly depreciates, before again starting to steeply appreciate post a decade. The massive and unprecedented depreciation was created by the mining boom, where in Australia was thriving as a commodity exporter,

¹⁰ Brain and Manning.

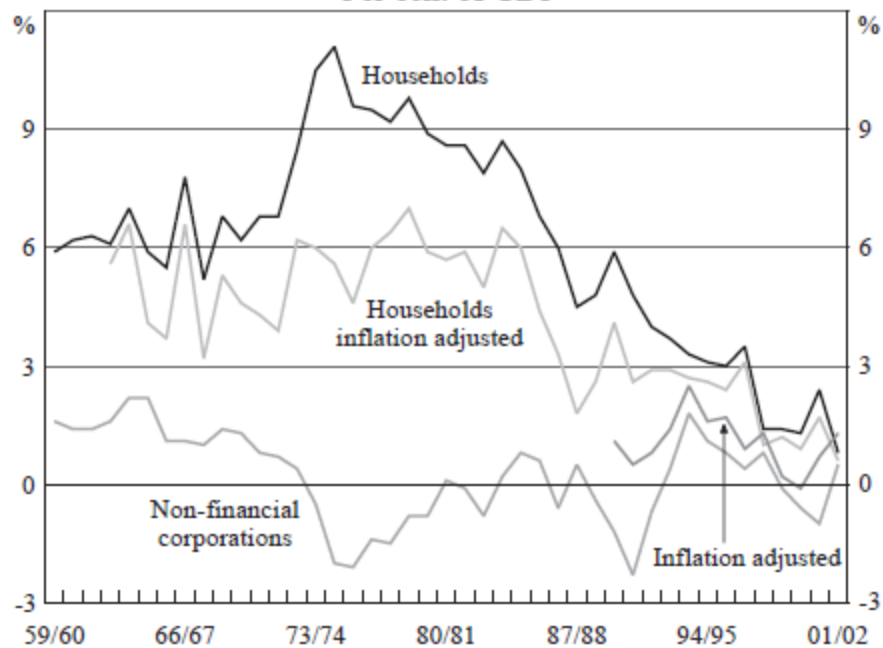
especially of fuels like coal, to partners like China. But on either side, there has been an upward movement of the exchange rate. But the key difference between the recent appreciation (2010 onwards) and the previous one in the 80s and 90s is the amount of external debt the economy is looking at. The magnitude of the current external debt has been talked about above. This coupled with unprecedented levels of household debt makes this upward movement of the exchange rate a signal that the external sector is bound to deleverage in the near future with massive loss in investor confidence. At least the signs seem to suggest so.

What are the institutional changes that might have caused the banks to adopt such methods of increasing their balance sheets, that also massively increases the overseas debt of the country?

The Domestic Private Sector

At the beginning of the previous section, we saw how massive the household debt of Australia is. We have also seen through the SFB equation that the domestic (private) sector has been accumulating liabilities. The table below shows why this is happening. In the SFB equation, the domestic private sector is defined as S-I. We see here that Savings has consistently been falling post the mid-1970s. The Savings graph also tells us that we can clearly delineate the trends in Savings pre and post deregulation.

Figure 2: Net Saving of Households and Non-financial Corporations
Per cent of GDP



Sources: ABS; RBA

Source: The Impact of Superannuation on Household Saving

Clearly, the household sector is leveraging and that has resulted not just in going down of net savings, but also the accumulation of massive household debt. As is pointed out in a report titled Household debt in Australia

“An international study by the Organization for Economic Cooperation and Development (OECD) estimates Australians’ average debt stands at 201 per cent of disposable income”.¹¹ The severe situation was also reflected when we looked at household debt of Australia and other countries in the Table in the External Sector section., which says that even if we do a global comparison, the situation remains very much severe for Australia. Hence the massive levels of debt cannot be explained by any global phenomenon too.

The next logical question that arises Is that what is the nature of this massive debt accumulation that we are seeing. Specifically , we would look at two things .How is debt distributed across different income groups and what is the nature of these debts, this is essential to understand to understand the consequences of interest rates of the debts and the chances of defaulting and therefore investor confidence , because post de regulation , banks although have primarily the assets from private sector , they have , on the liabilities side,

¹¹ “Household Debt in Australia” (AMP.NATSEM, December 2015).

the external sector. Hence investor confidence is pretty directly linked to debt and debt repayment in Australia.

Debt for housing property-which includes both mortgage loans as well investments for rental property takes up the lion's share of the debt components. The Household Debt in Australia report mentions that "Mortgage debt on owner-occupier housing represents the lion's share of Australian household liabilities at 56.3 per cent while debt associated with investments (such as rental properties or shares) makes up 36.5 per cent¹²". Mortgage debt comprises of more than half the liabilities of the all the households. If we break up the households into different income groups, we see that despite the different levels, the debt to income percentage going to mortgage remains fairly high. The worrying part however is that the lower income groups, specifically Q2 and Q3 have massive amounts of debts to income percentage in mortgages. For Q3 it is 63.4 % and Q2 it is 62.8%, specifically. Q2 and Q3 are the second lowest and third lowest income groups respectively, and if we go by the simple relationship that the risk of defaulting is inversely proportional to the income level, then this is definitely a worrying sign. Investor debt, which would include housing as property also, though is the highest in the top income decile at 44.8 %. if we look age wise, there is a specific phenomenon which is quite interesting, the Household Debt in Australia report puts it as "The increase in leverage among older households".¹³This according to the report shows a pertinent fact about debt, "reflect a lengthening of the time it takes to pay of a typical mortgage due to rising property prices and people using home equity to purchase other goods or make home improvements"¹⁴. The situation of the leveraging older households is a precarious one. The leveraging of the older households could also be tied to the consistent increase in the superannuation assets in Australia. In an empirical study done by Elis Cannolly and Marion Kohler, they point out that the reason for increased superannuation assets was something specific to Australia, that resulted in leveraging as Compared US or UK. Specifically, their paper says that "this suggests that a factor specific to Australia, such as compulsory superannuation, may have contributed to the rise in flows into superannuation" (The Impact of Superannuation on Household Saving). The claim that the superannuation scheme is actually the reason for such leveraging is further substantiated by their empirical findings in the paper The Impact of Superannuation on Household Saving, where they say that " Valuation effects explain only one third of the increase in the Australian Superannuation effects since 1988, with most of the growth due to increase in the flow of assets."¹⁵

¹² "Household Debt in Australia."

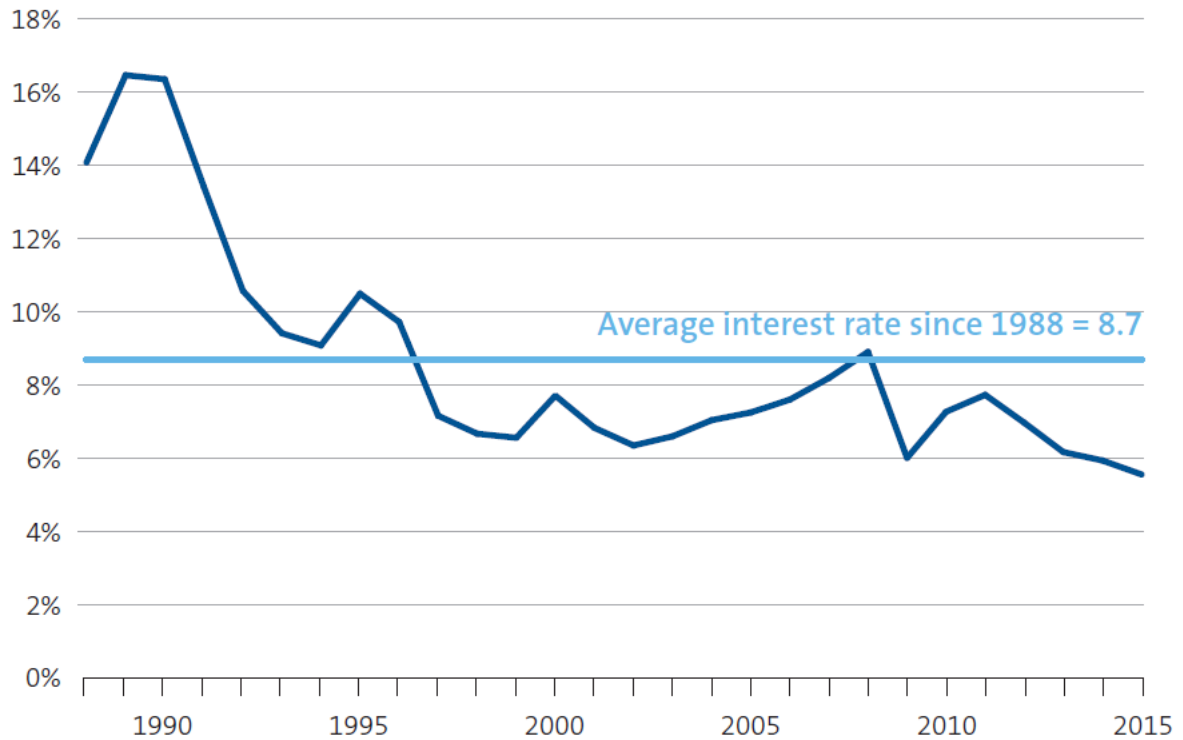
¹³ "Household Debt in Australia."

¹⁴ "Household Debt in Australia."

¹⁵ Ellis Connolly Marion Kohler and Marion Kohler, "THE IMPACT OF SUPERANNUATION ON HOUSEHOLD SAVING" (Economic Research Department Reserve Bank of Australia, March 2004).

If we are looking at understanding the situation of defaulting or the risk thereof, we must also take stock of the repayment of loans. The Household Debt in Australia report, while analyzing the burden of debt repayment of low-income households, says that “repayments taking up almost 60 per cent of household disposable income, an increase of 19.1 percentage points during the past 10 years”¹⁶

Owner occupier variable mortgage interest rates (1988–2015)

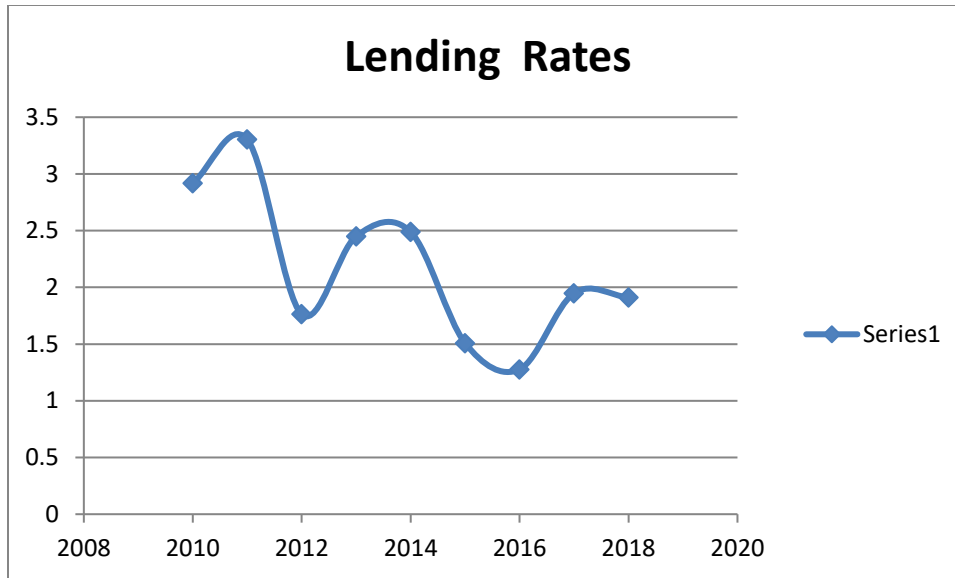


Source: RBA (2015) *Interest Rates: Indicator Lending Rates*.

Source: Household Debt in Australia, AMP NATSEM

The mortgage interest rates have been consistently plunging, and from the late 2000 onwards they have in-fact consistently been below the average of 8.7 %. This secular decline points to us the reason of the massive leverage of the households in mortgages. The massive rate cuts have encouraged the people to leverage without bounds and have made the debt levels unsustainable now. It is unsustainable, more so, because the brunt of the financial stress being faced is by the lower income households both in terms of the mortgage and housing loans, as well as their repayments.

¹⁶ “Household Debt in Australia.”

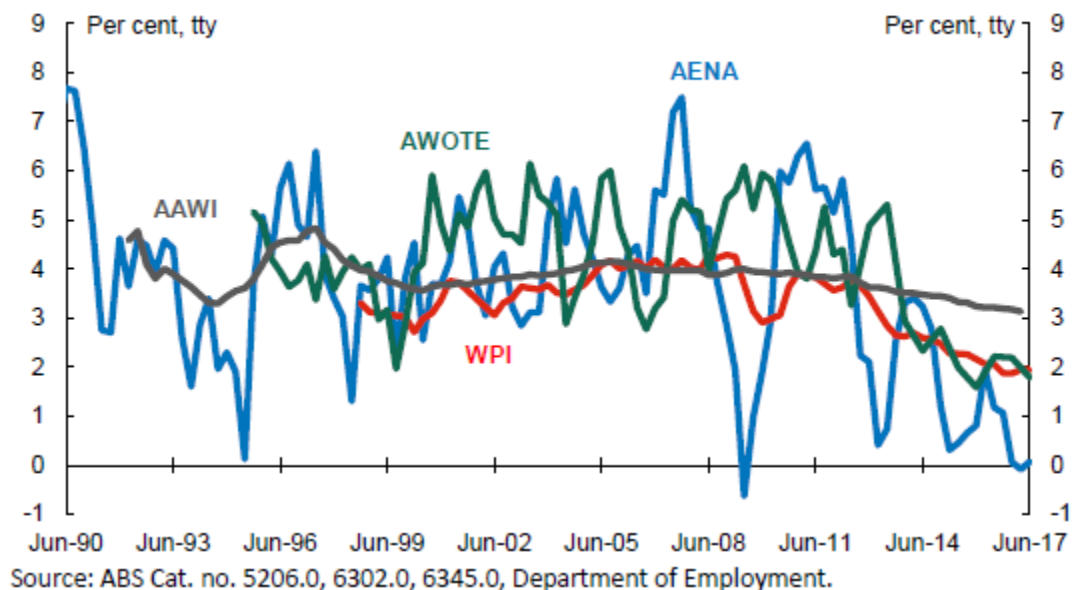


Source: World Bank (<https://data.worldbank.org/indicator/fr.inr.lend>)

The phenomenon of imprudent lending isn't just restricted to the mortgage rates, the lending rates in general have been plunging, especially from the past decade as we can see. The massively declining rates pose two fundamental questions on the economy which when combined, look ominous. Given the tremendous financial stress that the households are under, when the interest rates soar, what will the situation of these debts, especially of the lower income households. It would appear that they would default. Secondly, if interest rates become so low that people start expecting them to rise in the future and thereby start increasing their savings, that could also be a catastrophic stage for the debt situation.

The situation is worsened by a simultaneous phenomenon in the economy of a persistent stagnation of wages. Wage Growth in Australia is low, no matter what parameter we look from, and the low wage growth is across the whole economy rather than in specific sectors. The following chart is taken from the report – Analysis of Wage Growth that was issued by the Australian Government i.e. its Treasury.

Aggregate wage growth



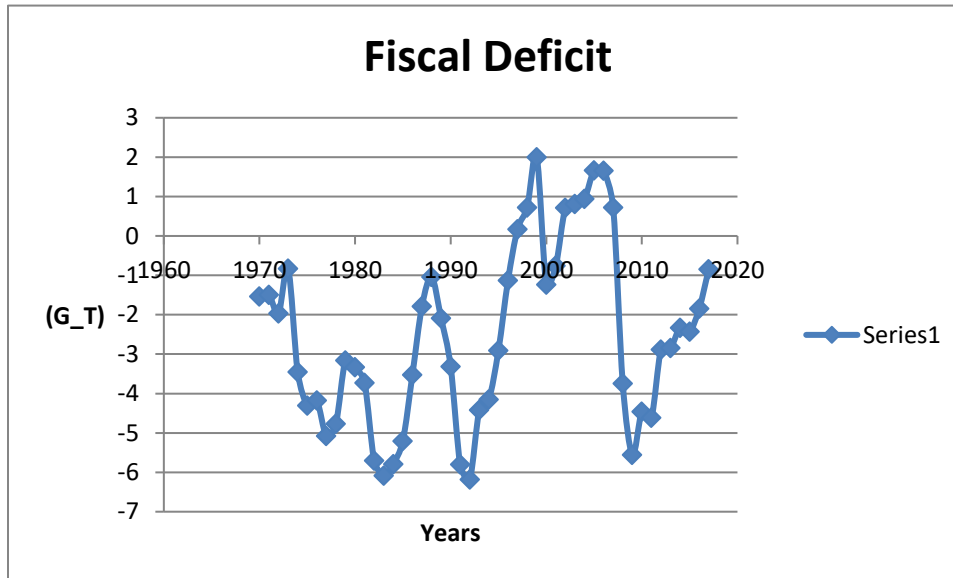
Source: The Analysis of Wage Growth 2017. Australian Government the Treasury.

There are various indicators of wage growth mapped together. – Wage Price Index (WPI) as well as the Average Earnings in the National Accounts (AENA) – which happens to be a broader measure of wages. There are other measures like Average Weekly earnings (AAWI) and Average Weekly Ordinary Time Earnings (AWOTE). And all of these measures show that their rates have gone down i.e. The growth in wages has been stagnant. The growth rates also tell us that the decline has been a consistent one, especially in the last decade. And to understand how low the rates have reached through this consistent fall, we can refer to the report – Analysis of Wage Growth 2017 “The Wage Price Index (WPI) grew by 1.9 per cent through the year to the June quarter 2017, which is the lowest through-the-year growth since the beginning of the series in 1997”¹⁷. In-fact Average Earnings in the National Accounts (AENA) increased merely by 0.1 % in the last year (till the June quarter ,2017, the most recent data point of the report). A depressed wage growth scenario such as this tells us two pertinent things. Firstly, this leveraging in the recent past by the private sector hasn’t been a result of real wage growths. And therefore, again points to the issue that banks then may have engaged in imprudent lending if the wage growth scenario was so dull. Secondly, and more importantly, such stagnation of wages has in no way helped in relieving the financial stress the households have been under. And going forward if the interest rates do rise, then stagnant wages would increase the financial burden on the households and therefore the private sector, immensely.

¹⁷ “Analysis of Wage Growth” (Australian Government the Treasury, November 2017).

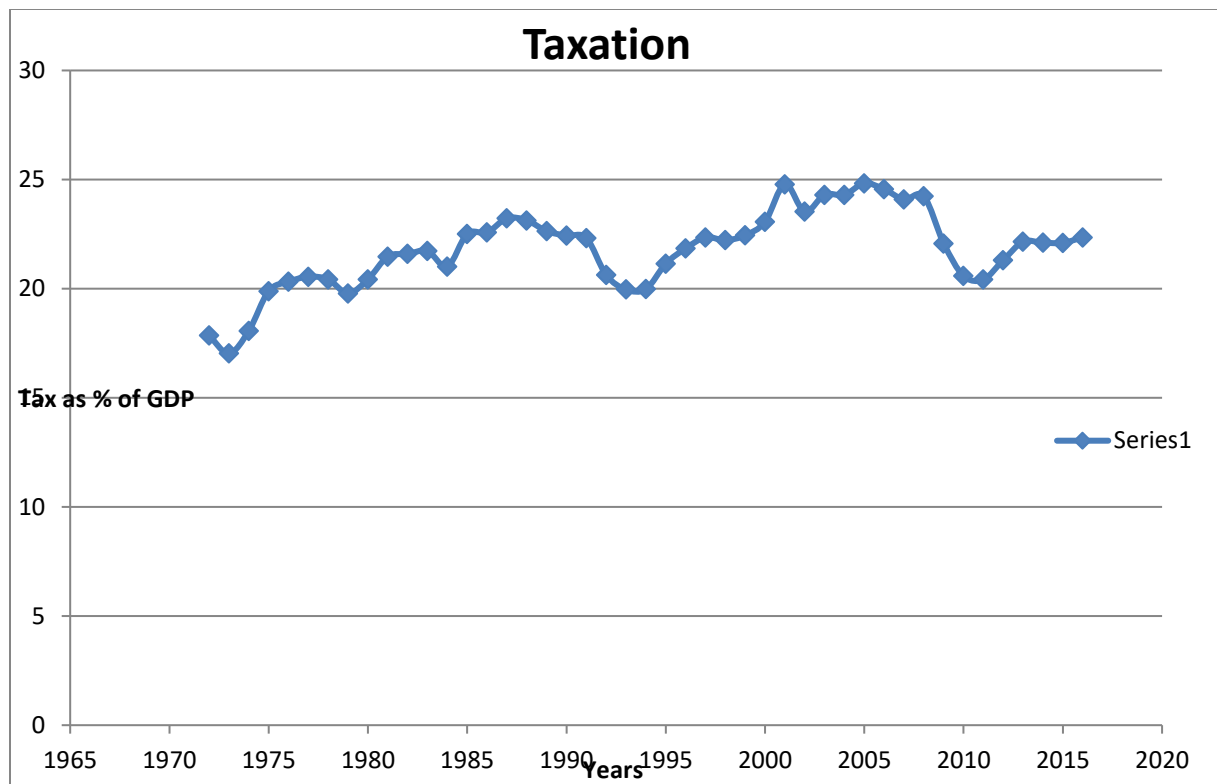
Thus, the situation on the debt front looks pretty grim for the private sector. Bu the question to ask really is that what measures in the larger scheme of things, led to such a situation.

The Government Sector



Source: OECD. Org (<https://data.oecd.org/gga/general-government-deficit.htm>)

Fiscal Deficit has fluctuated across the decades. But one trend we can clearly see is that post financial deregulation in the early '80s, the deficit massively and consistently kept getting smaller. And before that, in the financial regulation years, the fiscal deficit had remained pretty decent. More than anything, the reason for drawing the correlation was to point out the radically different approach that the government and policy making had pre and post deregulation. It was a shift from a system where government expenditure was believed to stimulate demand in the economy to an approach where it a high fiscal deficit is considered un desirable and something that crowds out investment. This approach is also reflected in the consistently decreasing fiscal deficits by the government in the past decade too. From almost -6% of GDP, the Fiscal deficit reduced to less than -1% in 2017. The government has, on certain occasions also maintained budget surplus from of around 2% or slightly less. Essentially, we can say that the approach of the government has been on minimizing fiscal deficit.



Source: World Bank

(<https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS?locations=AU&view=chart>)

The chart shows tax as % of GDP. Taxation was pretty low in the 1970s, remaining stagnant in the late 70s, before consistently being high and rising through the 80's and beyond. Taxation saw a minor blip in around the mid-1990s. but the tax rates were ever higher after that, rising secularly. And being almost 25% of GDP in the mid-2000s. Tax rates fell in the late 2000s till 2010 but in this decade, they have consistently risen and the trend is of further increases. It is important to note that from the 80's onwards the rate has almost never been below 20 %, and more often than not has been quite in excess of 20%. Increasing taxes and decreasing deficits. The government seems single minded in running a balanced budget. That seems to be the guiding principle behind government policy. This sort of an approach comes from a fundamental misconception of modeling the government as a household which must balance its earnings and expenditure. However, unlike the household the government can simply never go bankrupt. This is because the government unlike a household can print it' sown currency. In MMT terms we would say that the government's currency has a much higher acceptability than if there was to be a currency printed by a household. We can safely say that it would not have any acceptability. Hence it is fundamentally wrong to conceptualize the government as a household and once we do that, we are bound to find the kind of misgivings that we are noticing here.

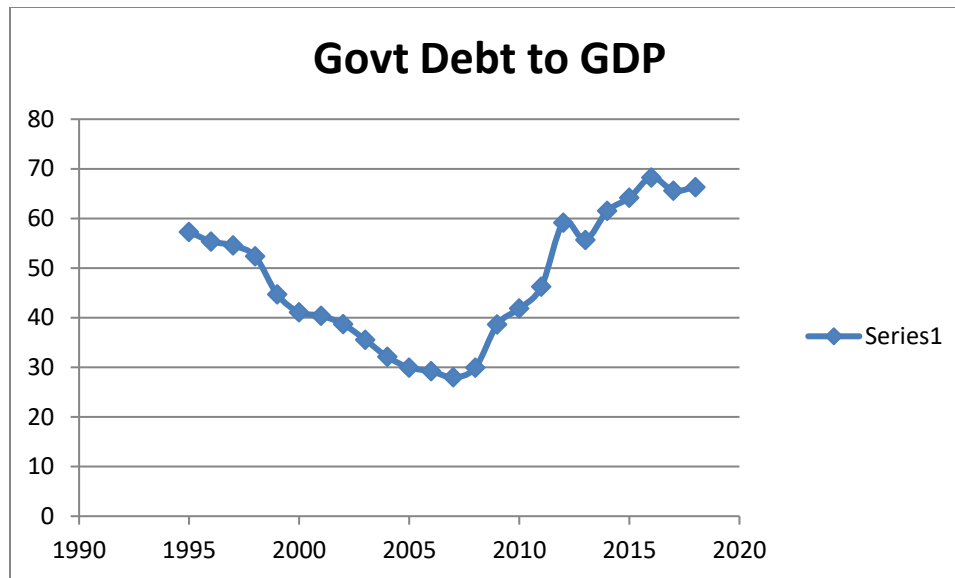
Moving towards a balanced budget also means that the government sector moves towards accumulation of assets. And from the fundamental SFB equation we can say that if one sector was to accumulate assets or reduce its liabilities, some other sector(s) are bound to accumulate liabilities. That is exactly the case that we have been witnessing in Australia. The households have obviously, as we have seen, accumulated massive liabilities. Hence in this sort of situation, is the role of the government to accumulate assets for itself?

Let us turn to the simple SFB equation for the answer. If the Private sector has leveraged tremendously, which it has, in the case of Australia, and now faces a huge debt burden and the possibility of defaulting on loans, then any policy ought to be guided towards reducing this burden. In other words, ensuring that the private sector's liabilities are lessened to a great extent or the private sector moves towards asset accumulation rather than accumulation of liabilities should be the aim of the government. Now, if the private sector's liabilities are to be reduced, it means 1 of the other two sectors must accumulate liabilities. However, if we are actually able to satisfy the level of net financial asset accumulation by the private sector through the foreign sector with increasing of current account deficit, and by that we are able to maintain our aim of a balanced budget by not troubling the govt. sector, even then, we face a major problem the increasing current account deficit would lead to depreciation of the domestic currency and that would increase inflation. (Credit Code Red). Thus, we would not be able to decrease the liabilities of the private sector through the foreign sector, without creating a major problem in the current account deficit. Especially in the case of Australia, where we are already seeing such a high current account deficit, one which is regularly exceeding the -4% threshold set by the EC indicators. Thus, it is the government sector which must come to the rescue of the household sector, and by increasing fiscal expenditure is the only way, that the government, can reduce the massive amount of liabilities of the household sector. A logical question that arises is, if the government starts accumulating deficit (say, by purchasing bonds), and then if it decides to pay off its debt, wouldn't it then create a problem for the private sector. This cannot be the case, as Sashi Sivramkrishna plainly puts it, in such a case "government will simply move its liabilities from bonds (securities account) to currency (reserve accounts)" ¹⁸. However, that being said, the government must be smart in how it increases its deficit as Kelton puts it in her video at CNBC, the government must expand deficits in such a way that "Build in the higher capacities that can absorb the deficit."¹⁹

But clearly, the emphasis of the Australian government seems to be that of striving towards a period by period balanced budget.

¹⁸ Sashi Sivramkrishna, *Maximum Government Maximum Governance: Reframing India's Macroeconomic Discourse* (Manohar, 2019).

¹⁹ *Modern Monetary Theory Explained by Stephanie Kelton*, 2019, <https://www.cnbc.com/video/2019/03/01/stephanie-kelton-explains-modern-monetary-theory.html>.



Source : World Bank
<https://data.worldbank.org/indicator/GC.DOD.TOTL.GD.ZS?locations=AU&view=chart>

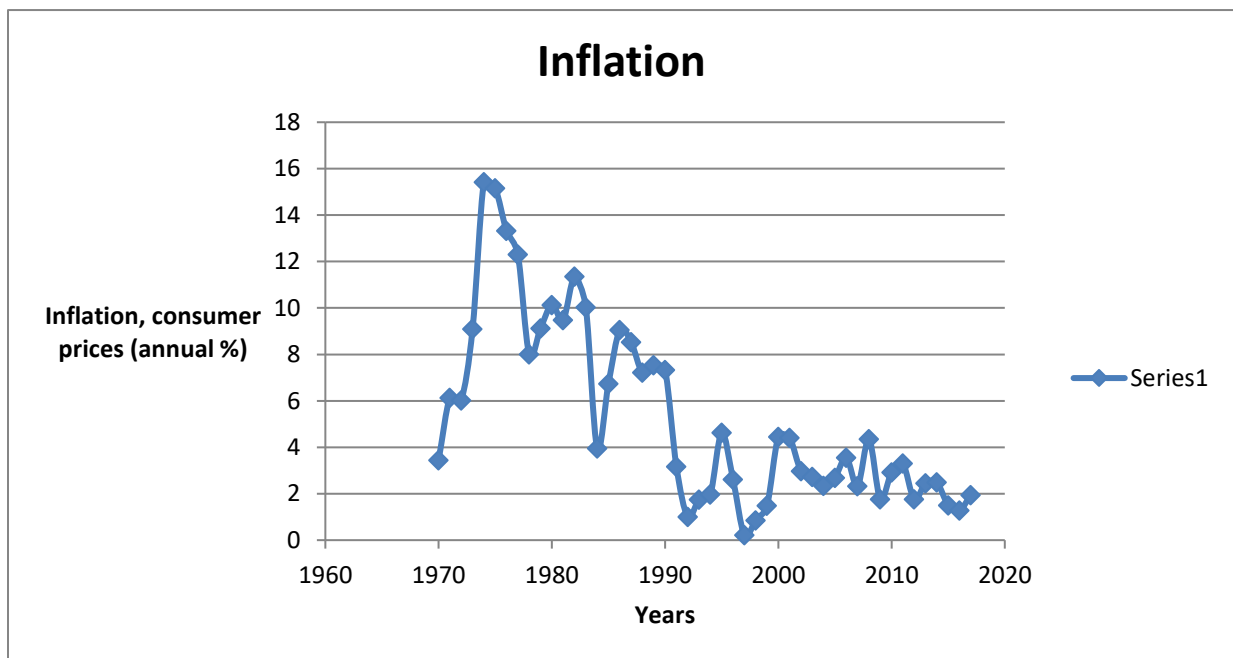
This endeavour of the government of maintaining a balanced budget despite such steep rise in government debt. As we can see, the govt. debt to GDP ratio has risen at massively sharp pace from the mid-2000s and has kept going upwards. And in-fact in the last 4 years it has stayed above 60 % of GDP hitting its peak of 68.27 % in 2016. In 2018 it was 66.30 %. So, what has the government’s response been? It has been to raise taxes. But we must really examine what really is the role of taxation, and is the taxation being adhered to really serving the purpose? Taxes, are essentially obligations of the people towards the state, the amount they owe to the government. They earn to pay off these obligations but also hold more than these with them, owing to the acceptability of the currency. But the government’s core aim in taxing is “transfer resources from the private sector to the public sector”²⁰ as Sivramkrishna rightly puts in Maximum Government Maximum Governance. Thus what we are saying is what Lerner called functional finance. Taxation must be undertaken , to the point of achieving certain objectives in the economy but not otherwise, as Lerner eloquently puts it “The central idea is that government fiscal policy, its spending and taxing, its borrowing and repayment of loans, its issue of new money and its withdrawal of money, shall all be undertaken with an eye only to the results of these actions

²⁰ Sivramkrishna.

on the economy and not to any established traditional doctrine about what is sound or unsound”.²¹

If we apply this lens to the Australian policy, we find that the policy may grossly be wrong in certain places. If the government is increasing taxation at a point where the private sector has already accumulated such huge amount of liabilities, then it really is doing injustice to the citizens. Taxation, as we discussed above lead to the transfer of resources from the private sector to the government. And that means further liabilities are added to the private sector. It is true that some amount of taxation would be required to build the capacity that absorbs the fiscal deficits.

Hence, the urgent need for the government is to massively increase its fiscal deficits to ensure that the burden of liabilities on the private sector is reduced. The government is maintaining really low fiscal deficits at this point and as we discussed, it must go. That would not just transfer the liabilities from the private to the government sector, but government also expenditure would boost the tremendously stagnant wages, thereby decreasing the debt to income and repayment to income ratio of the households, further helping them to come out of the hole they find themselves in.



²¹ Abba. P Lerner, “Functional Finance and The Federal Debt” (The Jhon Hopkins University Press, February 1943), https://www.gc.cuny.edu/CUNY_GC/media/LISCenter/pkrugman/lerner-function-finance.pdf.

Source: : World Bank

<http://api.worldbank.org/v2/en/indicator/FP.CPI.TOTL.ZG?downloadformat=excel>

Inflation has fortunately, not been a problem that Australia has had to contend with in the recent decades. Post 2000s, inflation has remained relatively moderate. In-fact in the last 5 years or so it has constantly been around the 2% mark. Often, the cause of inflation may not be really driven by domestic demand or supply but rather be a reflection global inflation trends driven global factors (oil prices, for instance). In-fact, a cursory look at the world does seem to suggest so. Shane Oliver presents in his article that “The weakness in inflation is evident globally. Using the US definition, core (ex food & energy) inflation is just 1.8% in the US, 0.8% in the Eurozone, 0.4% in Japan and 1.8% in China.”

Of course, apart from low inflation, there are additional things that are of real interest to us. There has been low inflation, particularly in America, despite their being taxation and expenditure by the government. In other words, despite increasing deficits, interest rates have remained low. Therefore, Neil Irwin, talks about how the results are breaking the orthodox assumptions of how a higher deficit will cause inflation to rise, and also that there is a tradeoff between inflation and unemployment. He says that “The actual results have undermined those assumptions. The unemployment rate has fallen to 3.6 percent. But the inflation rate has remained persistently below the 2 percent the Fed aims for.”²² There are two things that we can draw. Inflation at the present level, as well its trends do not present any challenge to the Australian government in expanding fiscal deficit, also owing to the current global nature of a low inflation. But more importantly, like America is showing, and so many other countries have shown, that a higher fiscal expenditure might not necessarily mean the application of orthodox rules. Hence, we can safely say that even if the government does increase fiscal deficit there is nothing obvious suggesting an increase in the inflation rates. Inflation, therefore, in the Australian context, can be safely ruled out as something standing in the way of the government relieving the private sector of its liabilities.

It is only adept that we must answer the core question that has propped up from the analysis of the private sector and the external sector, in the government section. As we have seen, that, a large part of the problem that the Australian economy finds itself has been responsible due the molding of the financial institutions of the country. Put in a nutshell, these institutions have created a situation of huge amount of bad debt which has led the economy to a potential banking crisis. Essentially, they have allowed the banks to go on a spree of expanding their balance sheets with the motive of profit maximization. This was done through “removal of restrictions on overseas borrowing ... removal of compulsory loans to the government, the removal of restrictions on interest rates, and removal of restrictions on the size of bank balance sheets.”²³ as is mentioned in *Credit Code Red* This

²² Neil Irwin, “Interest Rates Just Keep Falling. Economic Orthodoxy Is Falling with Them,” *The New York Times*, July 4, 2019, <https://www.nytimes.com/2019/07/04/upshot/interest-rates-falling-defying-expectations.html>.

²³ Brain and Manning, *Credit Code Red: How Financial De Regulation and World Instability Are Exposing Australia to Economic Catastrophe*.

obviously, has led the banks to maximize lending. Hence the creation of the situation of debts going bad.

The situation is precarious, as we have seen earlier. To overhaul this, government must practice what is called prudential regulation. The first and foremost thing is to control the interest rates of the banks. Thus, allowing for a limited scope of an unending expansion of the balance sheets. The banks must also be regulated as to the total quantity of loans that they can float. Apart from that the overseas investment could be controlled to channel domestic savings in the correct path. In other words, to prevent the outflow of assets from the private sector. If I were to sum it up, I would say the government must follow a policy which “concentrates on cash reserves and capital adequacy.”²⁴

Conclusion

There can be no denying that the Australian economy faces an urgent crisis. Of course, there are certain key structural reasons for the impending crisis, as has come out from an SFB analysis. But the logical conclusion that our model leads us to is that only and only if the govt. follows an interventionist approach through fiscal expansion and financial regulation, can the situation be overhauled. Again, we must keep in mind as was said in the beginning, this doesn't seek to achieve a cause and effect relationship, but rather with certain consistent parameters, it has sought to analyze the nature of the problem that Australian economy is facing and tries to put forward some policy interventions and the logic behind it from a Modern Money Theory perspective.

²⁴ Brain and Manning.