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A comparative introduction to the economies of Australia and Japan

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1. Introduction

This paper was presented at Kyoto University, Japan on November 4, 2022.

In this paper, we consider some of the salient differences between economic outcomes in Australia and Japan, which further lead us to ask questions about the social and political institutions in each country and how they mediate economic behaviour. Australia's performance is not all that different to many other Western countries even though the structure of the economy is based on primary commodity exports with a small, insignificant industrial sector. The relevance of that relates to the dynamics of the terms of trade, which in Australia's case are driven by movements in primary commodity prices, where other nations, that export industrial goods tend to have more stable terms of trade. Is there anything Japanese policy makers can learn from Australia's recent history? This comparative discussion is a precursor to a more detailed study of the future of Japan – its challenges and policy options.

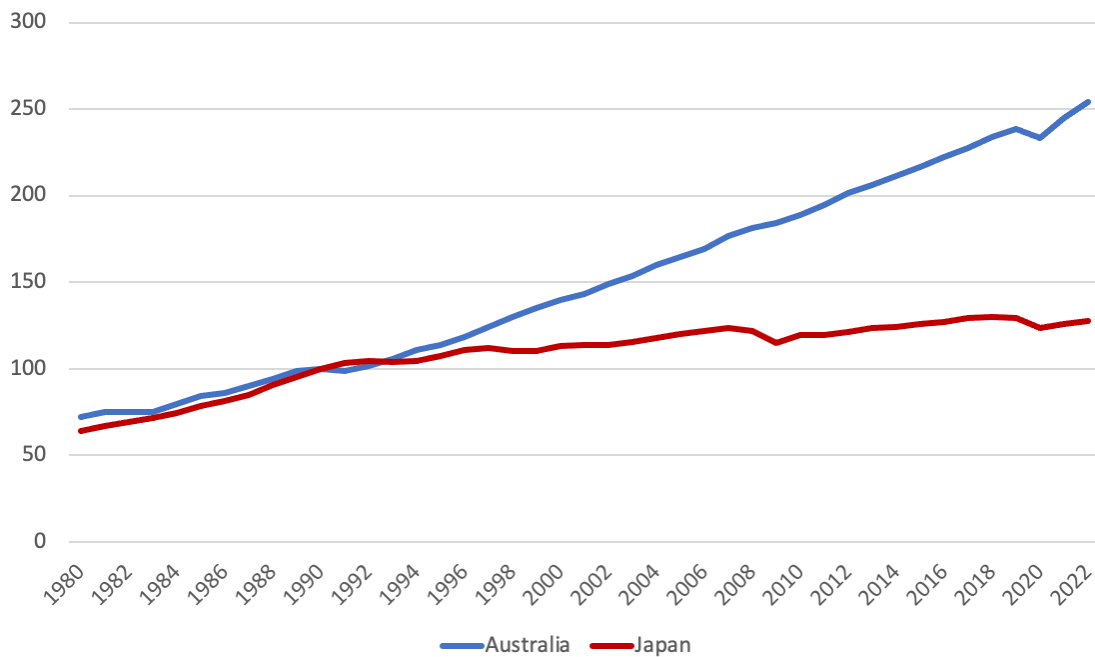
2. Economic growth – the so-called 'decade' in Japan

Figure 1 shows real GDP for Australia and Japan indexed to 100 in 1990, the turning point for the Japanese economy, as the real estate bubble was about to burst. During the 1980s, both economies underwent significant change with respect to financial market deregulation, which spawned asset bubbles. Economic growth was similar in both countries.

The recession in Australia in 1991 was the result of excessive monetary tightening and an obsession by the then federal government with pursuing fiscal surpluses. The recession was the worst downturn since the Great Depression of the 1930s. The bubble burst for Japan came just after and while the Japanese government prevented a recession, the overall growth rate slumped and has been relatively low since that time.

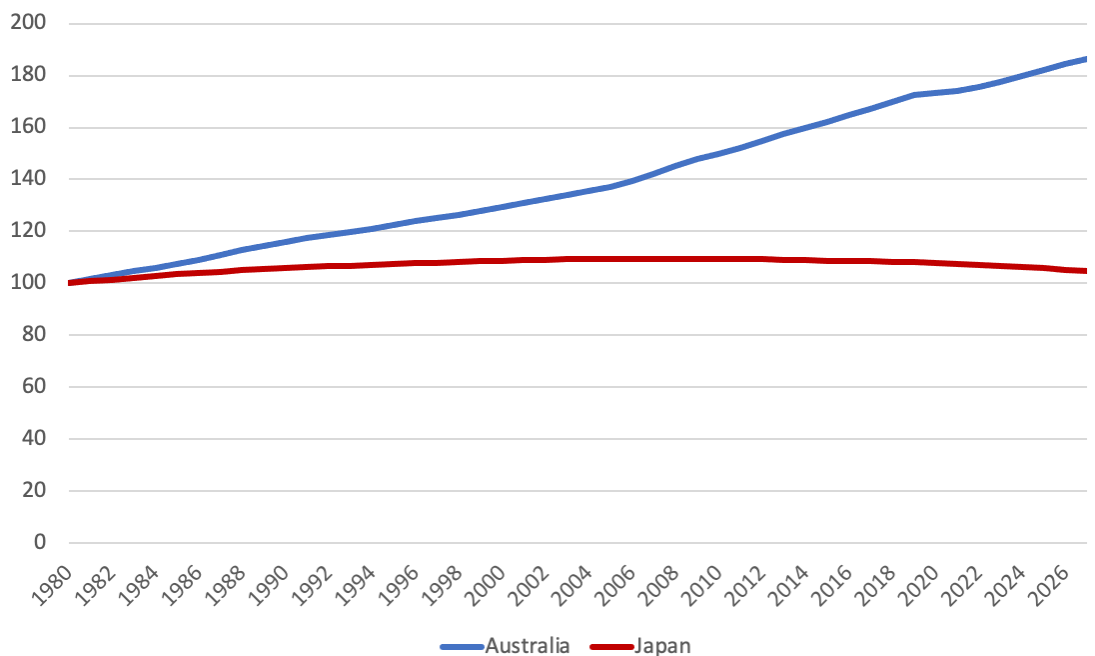
The flat GDP growth rate for Japan is the basis of the assertions that the nation endured a 'lost decade', which became extended into the current period. Since 1990s, the size of the Australian economy has grown around two and a half times, while the Japanese economy has only grown by around 25 per cent.

Figure 1 GDP growth, Australia and Japan, 1990-2021, 1990=100



Source: IMF World Economic Indicators.

Figure 2 Population growth, Australia and Japan, millions



Source: Australian Bureau of Statistics, Japan Statistics Bureau.

However, it is important to put the ‘lost decade’ narrative into a wider perspective. Figure 2 shows the respective population growth. In 1980, the population of Australia was 14.8 million and by 2022 it was recorded at 25.9 million and the annual growth rate is about 1.6 per cent on average per year. There was a slump in the population growth during the early years of the pandemic, as the government closed the external border and migration was highly restricted. In stark contrast, Japan’s population is now shrinking slowly and there are projection that by 2025, the Japanese population will be around 121 million (Cabinet Office estimates).

Comparing Figure 1 and Figure 2 helps us understand why economic growth is slower in Japan relative to Australia and puts the claims about a ‘lost decade’ into a more meaningful perspective. Bringing those two dimensions together yields GDP per capita, which tells us how the size of the economy has moved in relation to the underlying population dynamics (see Figure 3).

Prior to Japan’s asset crash in 1991, GDP per capita was growing much more quickly in that nation relative to Australia. The 1991 crisis ended that period of increasing prosperity and GDP per capita increased slowly after that in Japan. In the early 2000s, GDP per capita was growing almost at the same rate in both countries. The Global Financial Crisis (GFC) was more damaging for Japan than it was for Australia, in part, because the government fiscal support was relatively larger in the latter. We can also see evidence that the Japanese sales tax hike in May 1997 when household consumption growth slumped, and GDP declined. We discuss this in more detail later.

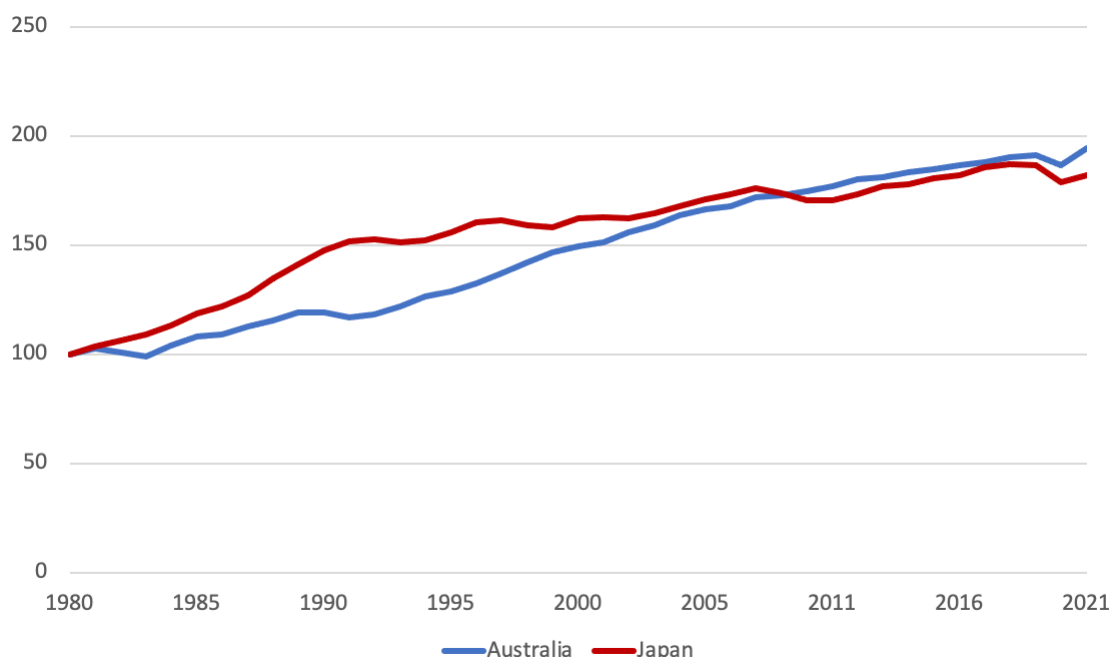
The salient point though in the context of this comparative analysis, is that over the 40-year period, the evolution of GDP per capita in both countries does not justify categorising Japan as a failed economy, along the lines of the ‘lost decade’ narrative, while at the same time holding Australia out as a well-performed economy.

If we conclude that the evolution of GDP per capita, which is an average measure, has been broadly similar over this period, then the next point of enquiry focuses on how national income has been distributed over the period. If we consider the Gini coefficient measure, then Japan records a lower level of income inequality than Australia for comparable data.

The summation is that while GDP growth in Japan is very low, population growth is similarly low, which means that the nation can sustain stable or improving material standards of living. Australia, by contrast, must record higher rates of GDP growth to maintain a similar time path for GDP per capita because its population growth is much

higher. Thus, discussions that focus on Japan’s low rate of GDP growth fail to understand the context of low population growth. If Australia’s GDP growth fell to rates common in Japan over the last two decades or so, then its unemployment rate would rise significantly because the population growth, combined with productivity growth places a much higher real GDP growth requirement for the unemployment rate to remain stable.

Figure 3 GDP per capita, Australia and Japan, 1980 to 2021, 1980=100



Source: IMF World Economic Outlook, see also Figure 2.

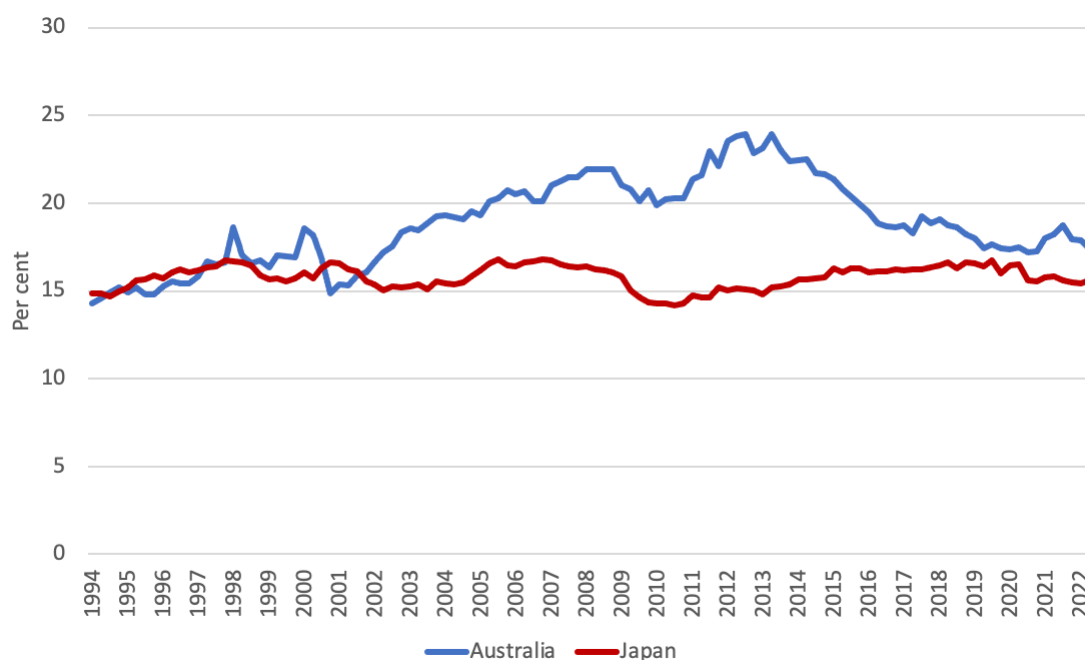
3. Trends in Capital Formation

What have been the comparative trends in business investment and capital formation in general? Figure 4 shows the private investment to GDP ratio from the March-quarter 1994 to the June-quarter 2022 for Japan and Australia. The ratio has been very stable in Japan for a long period – averaging 15.8 per cent since 1994. By contrast, the investment ratio in Australia has been significantly more variable over this period, which relates, in part to the dramatic fluctuations in its terms of trade that are driven by volatility in primary commodity markets. While Japan is an exporter of finished industrial goods, which experience low price variances in international markets, Australia remains a primary commodity exporter and endures often violent fluctuations in commodity prices in both directions, which feed into exchange rate volatility.

The large increase in the private investment ratio for Australia from the turn of the century to around the GFC was due to a ‘once-in-a-hundred-year’ mining boom, which was driven by a surge in world demand for Australia’s mineral exports and dramatic increases in world prices for these commodities.

If we netted out the impact of Australia’s mining boom, then the investment ratio for the non-mining sector in Australia is not dissimilar to that of Japan. We get a sense of that post GFC, when world primary commodity prices (particularly for iron ore) fell back to more normal levels and Australia’s mining boom came to an end. Then the private investment ratio for the entire economy (including the mining sector) fell back to a level like that observed in Japan.

Figure 4 Private Investment Ratio, Australia and Japan, March 1994 to June 2022, per cent

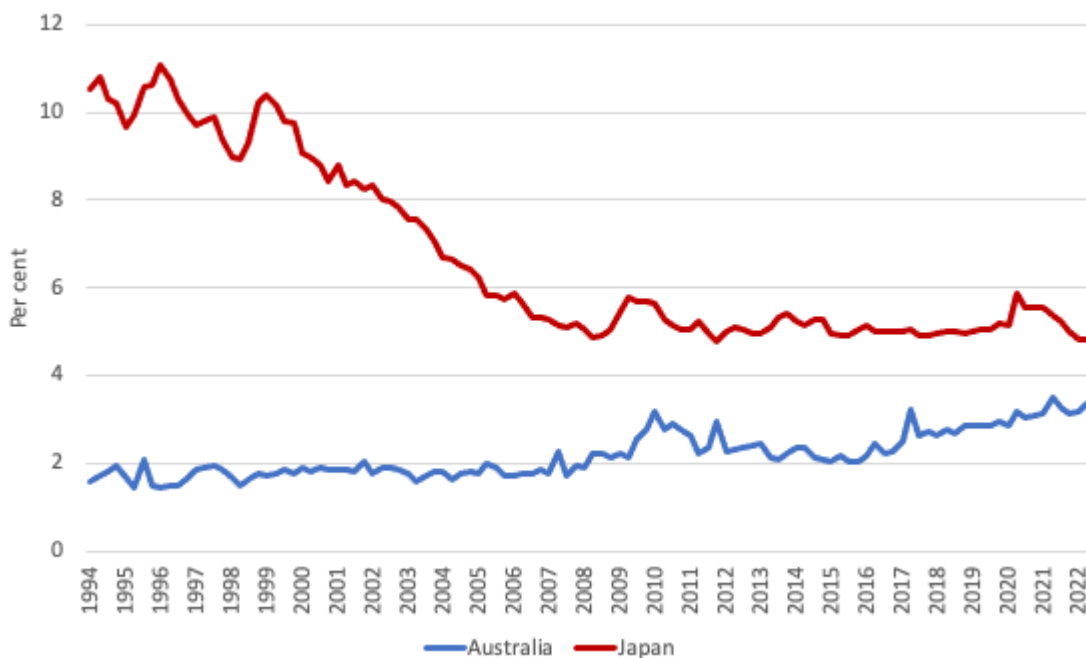


Source: Australian Bureau of Statistics, National Accounts; Cabinet Office, Japan.

Figure 5 shows the evolution of the public investment ratio for Australia and Japan over the same period. This ratio captures the government spending on infrastructure scaled against the size of the economy. With fiscal austerity the norm over this period, governments sought fiscal reductions by cutting public infrastructure spending rather than recurrent spending because it was politically easier to hide the short-term political impacts. It is harder for the public to detect cuts to infrastructure spending and the

deterioration in the services emanating from the capital stock is often relative slow to manifest. Since the GFC, Australian governments (federal and state) ramped up capital works programs, initially as a fiscal stimulus during the GFC, but then to begin the process of repair of essential infrastructure after years of neglect as surpluses were pursued. Japan’s history is very different. After the bubble burst, the Japanese government sought to reduce its fiscal exposure through quite sharp reductions in capital expenditure. That adjustment ended during the GFC and the public investment GDP proportionality has been relatively stable since with a notable increase during the pandemic.

Figure 5 Public Investment Ratio, Australia and Japan, March 1994 to June 2022 per cent



Source: see Figure 4.

4. Household consumption expenditure and the impact of tax changes

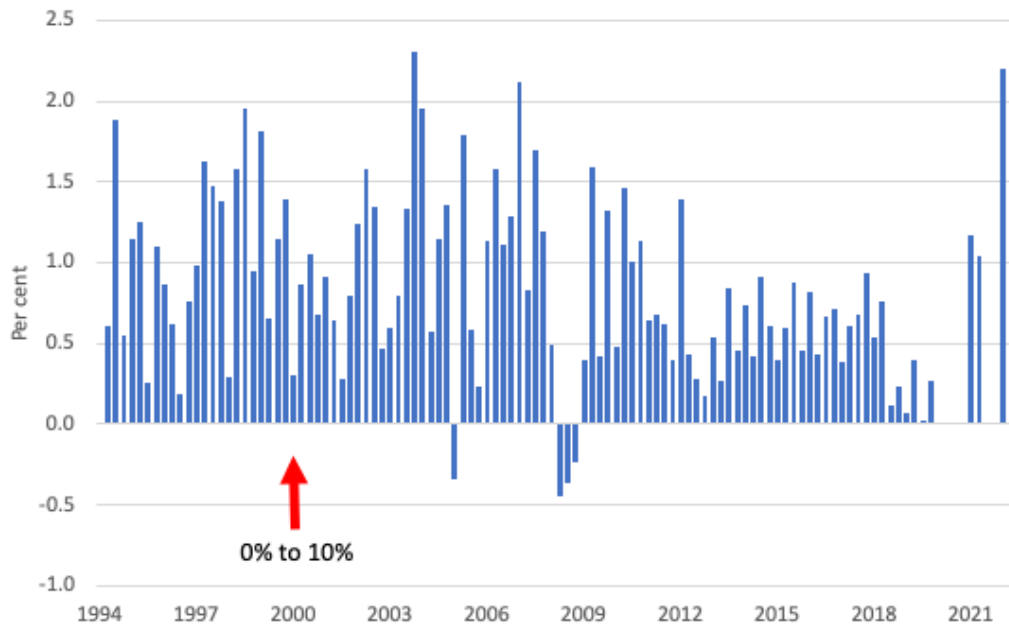
Figure 6 compares the quarterly growth in household consumption spending from the March-quarter 1994 to the June-quarter 2022 for Australia (top panel) and Japan (bottom panel). We left out several quarters in the early period of the Covid-19 pandemic from the graph because they were extreme outliers and distorted the graphs. The average quarterly growth over this period was 0.85 per cent for Australia and 0.17 per cent for Japan – a considerable difference.

Focusing on Japan, the red negative bars are the quarters that were immediately impacted by the sales tax increases in April 1997 from 4 to 5 per cent, in April 2014 from 5 to 8 per cent, and in October 2019, after two postponements, the tax shifted from 8 to 10 per cent. The sales tax rises were driven by the political pressure mounting on the government from commentators who claimed the government's fiscal deficit was too large and the nation risked insolvency. As a currency-issuing government such an outcome is, of course, impossible and reflects the poverty of mainstream macroeconomic thinking. But the Japanese government bowed to the pressure and invoked tax cuts to appease the 'markets', The results were entirely predictable. After setting the economy back on a new growth path after the 1991 bubble burst, the decision to elevate sales tax in April 1997, immediately saw household consumption spending and GDP growth contract. The same pattern of damage followed the hikes in 2014 and 2019 and demonstrated that growth in Japanese household consumption expenditure is not only, modest relative to, say, Australia (as above), but also highly sensitive to sales tax changes. We explore the reasons for that heightened sensitivity later in this section.

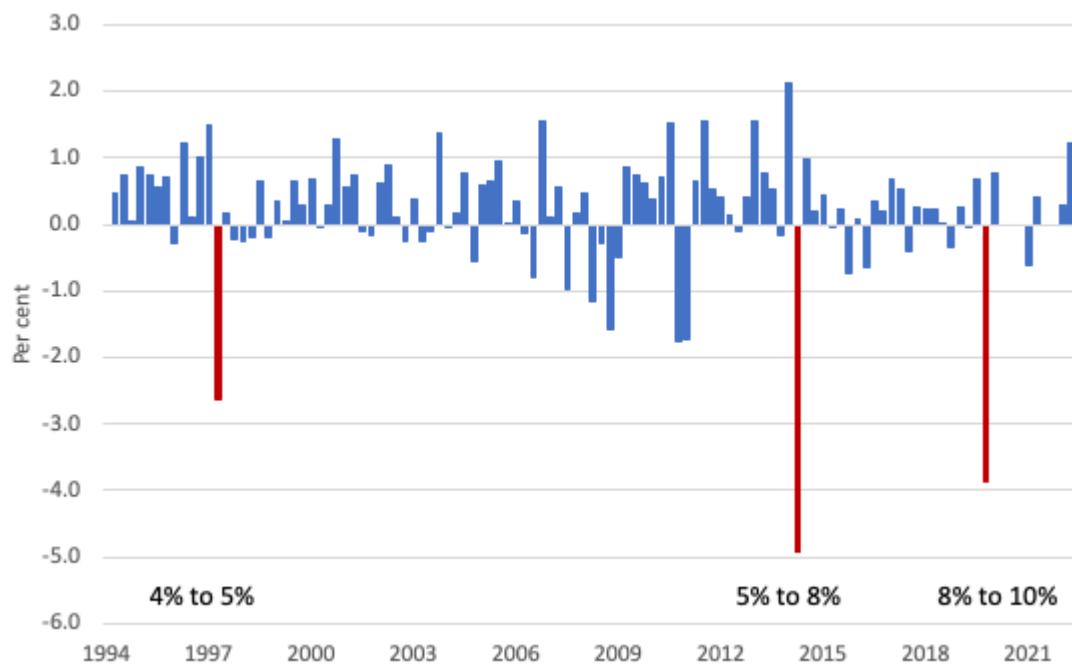
By way of contrast, growth in household consumption expenditure in Australia is much stronger relative to the Japanese experience. The arrow with the annotation 0% to 10% represents the introduction of the Goods and Services Tax (GST) in July 2000, which saw a new tax on many consumption goods and services levied at a starting rate of 10 per cent. The GST was thus a sales tax akin to the tax rises in Japan. The introduction of the GST immediately had a negative impact on household consumption growth but nothing like the impact that sales tax increases in Japan had.

What might explain the different sensitivity of household consumption expenditure to sales tax increases in Australia and Japan. Why do Japanese households react so adversely to relatively modest sales tax rises by comparison to the way Australian households react.

Figure 6 Quarterly household consumption expenditure growth, March 1994 to June 2022, per cent



(a) Australia



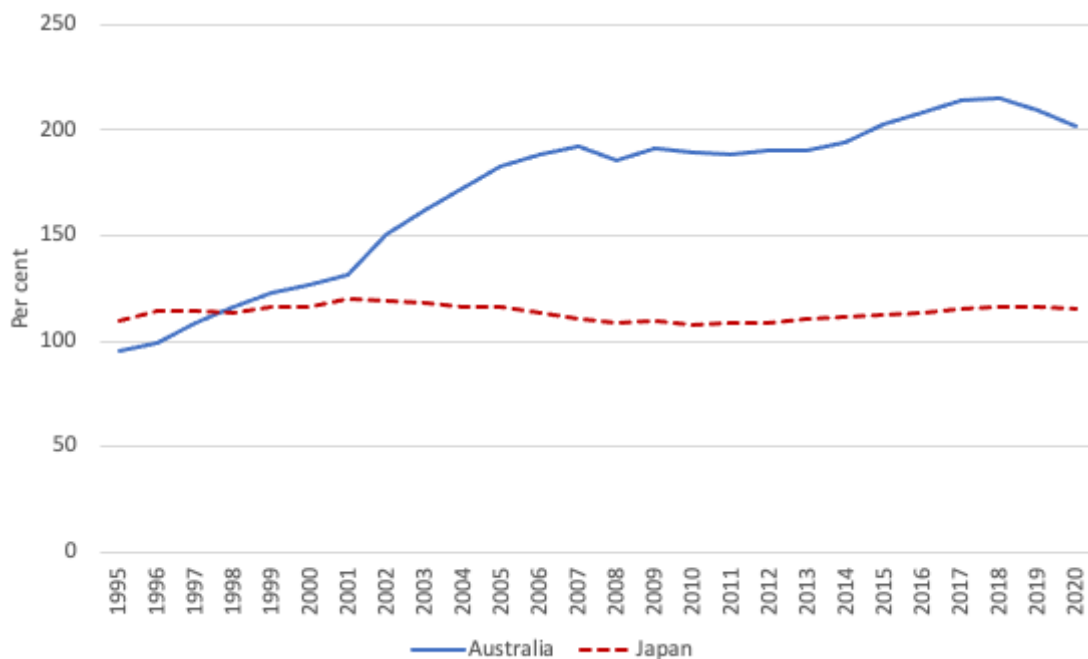
(b) Japan

Source: see Figure 4.

Figure 7 shows household debt as a proportion of disposable income for Australia and Japan from 1995 to 2020 and helps us understand why the tax sensitivity of household consumption expenditure varies across those two nations. Australia ranks high among the OECD nations on this measure and household debt has risen from around 67 per cent in 1990 to 188.5 per cent in September 2022. By way of stark contrast, household debt to disposable income in Japan is highly stable at just over 100 per cent.

Further, in both nations, wages growth has been very low over the period shown in Figure 7. What becomes clear is that Australian households kept spending when the GST was introduced, whereas Japanese households dramatically reduced consumption spending, because the former are much more willing to increase their debt exposure when their disposable income is squeezed. Australians borrow to maintain spending capacity whereas Japanese households cut back spending.

Figure 7 Household debt to disposable income, Australia and Japan, 1995-2020, per cent



Source: OECD Main Economic Indicators.

While the increasing burden of debt can have negative consequences (for example, it makes household solvency much more sensitive to interest rate changes), it remains that the greater propensity to take on household debt renders the Australian economy with a greater ability to absorb these type of sales tax increases relative to Japan. It is surprising,

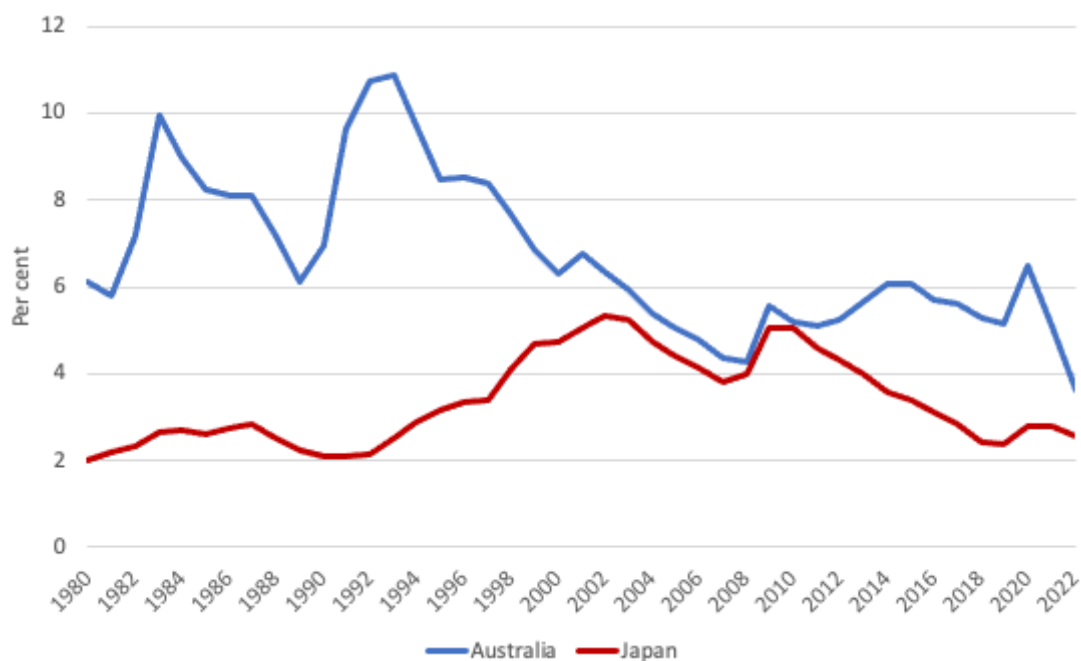
therefore, that the Japanese government used sales tax increases to boost revenue when they should have known that Japanese households were not going to use increases in debt to absorb the impingements on their disposable income. It is fairly clear, that sales tax increases in Japan will push the economy towards recession.

This means that when designing optimal policy interventions in Japan, the choice of sales tax variations would seem to be a poor policy choice because the probability that stagnation will follow is very high.

5. Unemployment differences

While the evolution of GDP per capita in recent years is very similar for Australia and Japan, there is a fundamental difference in the way the two nations deal with unemployment. Despite the major bubble burst in 1991, the GFC, the natural disasters (for example, Tōhoku earthquake and tsunami, the Fukushima Daiichi nuclear disaster), and the pandemic, Japan has always sustained relative low unemployment rates compared to Australia (see Figure 8).

Figure 8 Unemployment rates, Australia and Japan, 1980 to 2022, per cent



Source: IMF World Economic Outlook.

Low unemployment in Japan is an important part of its social balance and employers consider their workers to be assets rather than costly liabilities. Security of tenure is

valued by both workers and employers, which is one of the reasons why Japanese workers have tolerated the extremely low wages growth over the last several decades.

By way of contrast, Australians have been conditioned under neoliberalism to tolerate higher levels of unemployment. That tolerance was created by substantial public campaigns by the government and business to convince citizens that the unemployed were not interested in working – that it was their fault that they were without work. Australians were told that the problem of unemployment was not a systemic failure to create enough jobs, but, rather, an individual unwillingness to work by the unemployed. They were lazy or ill-disciplined. That reframing of the problem of mass unemployment – from the systemic crisis understanding of the Keynesian era, to the individual choice explanations of the neoliberal was a classic case of ‘divide and conquer’ where people were encouraged to believe there were plenty of jobs despite the high unemployment. The social propaganda that reinforced this message allowed the government to avoid taking responsibility for the problem.

It is doubtful that such a strategy would work in Japan given the cultural centrality of work and the collective nature of society.

6. A sectoral balances perspective

The sectoral balances framework, which is derived from the national accounting framework provides an alternative way of viewing the financial balances of the government sector, the private domestic sector, and the external sector (Mitchell *et al.*, 2019 provide a full derivation of the framework).

The summary relationship is given as:

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

where S is household saving, I is business investment, G is government spending, T is tax revenue, X is exports, and M is imports.

This accounting relationship must always hold and is brought into equality through national income changes because S, I, G, T and M are all considered to be sensitive to such changes in various ways.

The relationship can be simplified further such that:

$$(2) \quad (G - T) = (S - I) - (X - M)$$

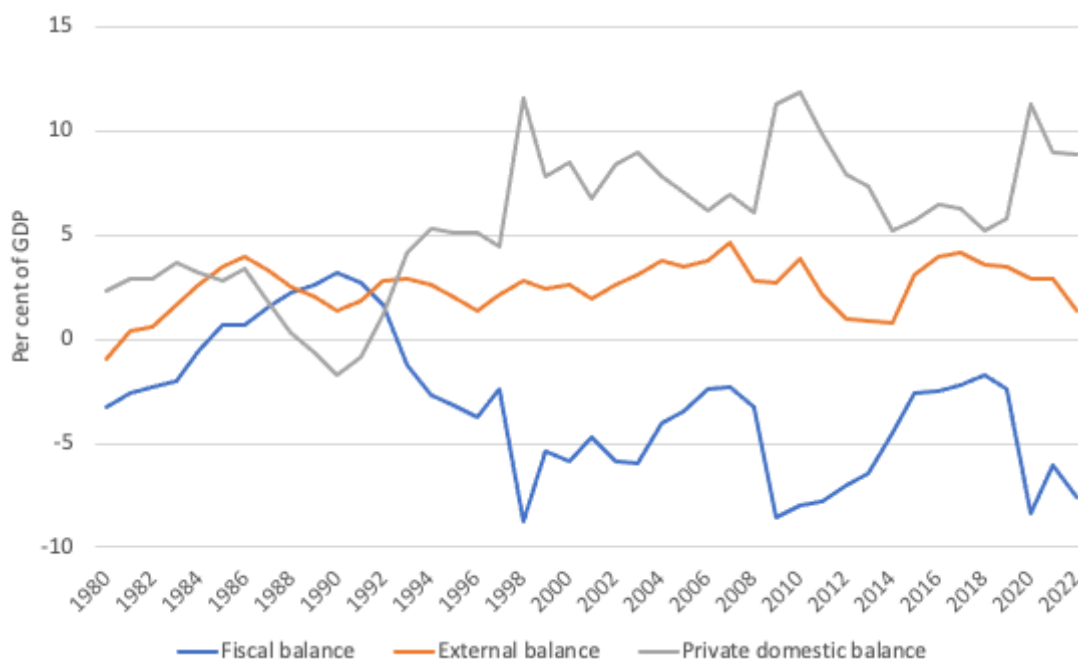
This gives the familiar conclusion that the government fiscal deficit (surplus) must always equal, dollar for dollar, yen for yen, the non-government sector surplus (deficit). Thus, a

growing fiscal surplus signals that the non-government sector is spending more than its income and accumulating debt as a result. Fiscal surpluses push the non-government sector into increased deficits and the liquidity squeeze that results can only be extinguished through reductions in non-government financial wealth.

Figure 9 shows the sectoral balances for Japan from 1980 to 2022, expressed a per cent of GDP. The external position has been mostly stable, with a surplus fluctuating mostly within a 1- or 2-point range. The external stability allows us to see that the private domestic sector surplus is a near mirror image of the government deficit. Each time the government has tried to reduce its deficit, the net overall savings in private domestic sector have declined quite sharply. That is because the government deficits provide support to the accumulation of net financial assets in the private domestic economy. Each time, the government tries to reduce its net spending, the resulting liquidity squeeze in the non-government sector, forces a reduction in net financial assets in that sector.

The implication here is that, given the strong propensity to save in Japan and the relatively stable external surpluses, the government must run continuous deficits to fund the overall saving desires of the private domestic sector. The variance in those desired fiscal deficits depends on the shifts in the external position – when the external surplus is lower, the fiscal deficits have to rise, to maintain income growth, and vice versa.

Figure 9 Sectoral balances, Japan, 1980 to 2022, per cent of GDP

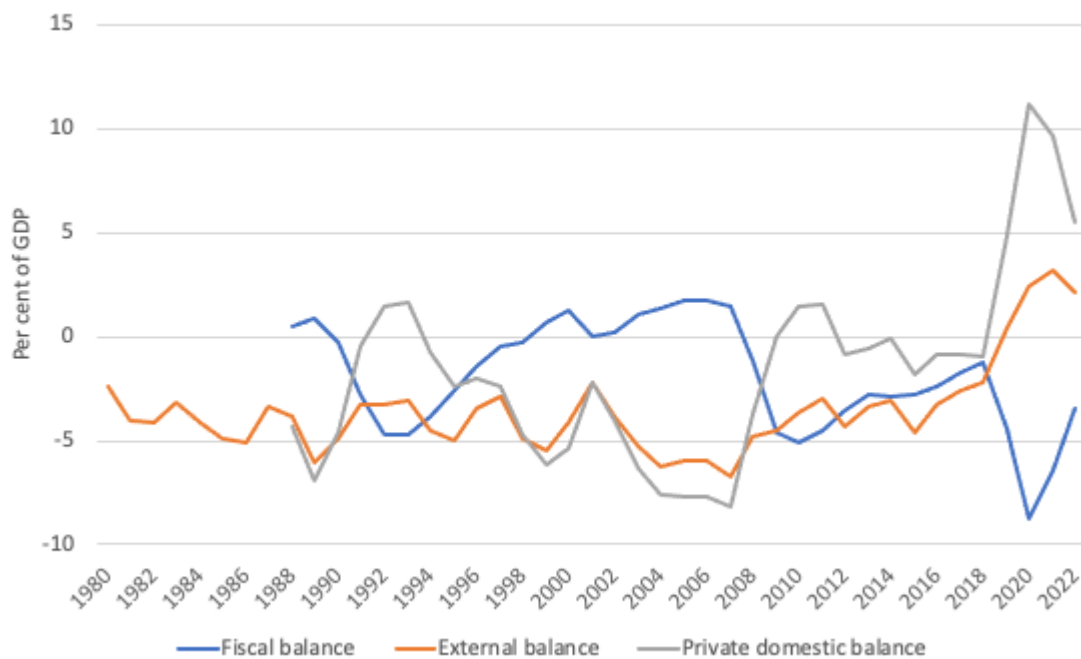


Source: IMF World Economic Outlook.

Figure 10 shows the sectoral balances for Australia from 1988 to 2022 as a per cent of GDP. They represent quite a contrast to the evolution of the balances for Japan and reinforce more emphatically why continuous fiscal deficits are essential to maintain stability in Australia. Over the long period for which we have data, the Australian government has been in deficit around 85 per cent of the time. Fiscal deficits are the norm for Australia, whereas periods that the government has recorded surpluses are not normal and are associated with typically undesirable behaviour in the private domestic economy.

Since the mid 1970s, Australia has also run external deficits of around 3-4 per cent of GDP. They vary with fluctuations in the terms of trade, which just reflect the movements in primary commodity prices. Australia is a capital importing nation and that drives the external position.

Figure 9 Sectoral balances, Australia, 1988 to 2022, per cent of GDP



Source: IMF World Economic Outlook.

It is only in recent years that Australia has recorded external surpluses on the back of booming commodity prices. The boom will be ephemeral and the structural bias towards external deficits will reassert itself once the boom expires. Most forecasts are predicting a return to external deficits of around 3 per cent of GDP in the coming years.

Focusing on the other two balances, we see, as in the case of Japan, the strong mirror image relationship between the fiscal balance and the private domestic balance. After the

1982 recession, as Monetarism became the dominant macroeconomic paradigm, Australian policy makers sought to eliminate the fiscal deficits and put the government sector into surplus. They erroneously believed this would create 'national savings', which would stimulate productive investment. As a result of the austerity policies that were pursued, and given that the external sector was in deficit and draining growth prospects, the liquidity squeeze forced the private domestic sector into deficit.

Around this time, financial market deregulation accelerated, and it became much easier for households to access credit and accumulate debt. The combination of the liquidity squeeze from the fiscal contraction and the easier credit access meant that households had to increasingly borrow funds to maintain their consumption expenditure.

That period came to an end with the 1991 recession, which was the worst downturn in Australia since the 1930s Great Depression. The government was forced into deficit and overall saving in the private domestic sector returned to surplus. However, in 1996, a conservative (neoliberal) government was elected and intensified the pursuit of fiscal surpluses. The fiscal contraction during this period was significant.

As a result, the household saving ratio fell quickly into negative territory and household debt rose sharply (see Section 4). The household saving ratio had averaged around 10 per cent of disposable income before then. The only reason that the national government was subsequently able to sustain 10 surpluses in 11 years was because aggregate demand was being driven by the private domestic debt accumulation. Later in the period, the mining boom, discussed above, also provided support for spending in the face of the continuing fiscal withdrawal.

However, had the Australian households responded in the same way as Japanese households to the squeeze on disposable income, then the fiscal surpluses would have evaporated very quickly and driven the economy in recession.

That period came to an end with the onset of the GFC, which forced the government back into deficit and provided the income support for the private domestic sector to return to surplus.

The lesson for all governments here is that if the private domestic sector desires to net save overall and plans its spending behaviour accordingly, then it a damaging strategy to aim for surpluses, if that requires a substantial squeeze on private domestic liquidity and escalating private debt levels. The lesson from Australia's history is that the only way growth can continue with the imposition of fiscal austerity is for the private domestic sector to increasingly accumulate debt. That can only be a finite state and eventually the

private domestic balance sheets become so precarious that the credit-fuelled spending growth comes to an end and recession ensues. It is true that the external sector surpluses in Japan reduces the size of the fiscal deficits that are required to maintain growth. But the fact remains, it is highly unlikely that Japan will ever be able to run fiscal surpluses for any length of time without causing a major recession.

7. Qualitative research into happiness

In Japan, wages growth has been very low for an extended period and despite the low inflation, real purchasing power in some occupations has also declined. Japanese workers are also tolerant of this situation. But are they happy and are Australian workers better off in terms of happiness because their wages have not been as suppressed as the wages of their Japanese counterparts have been?

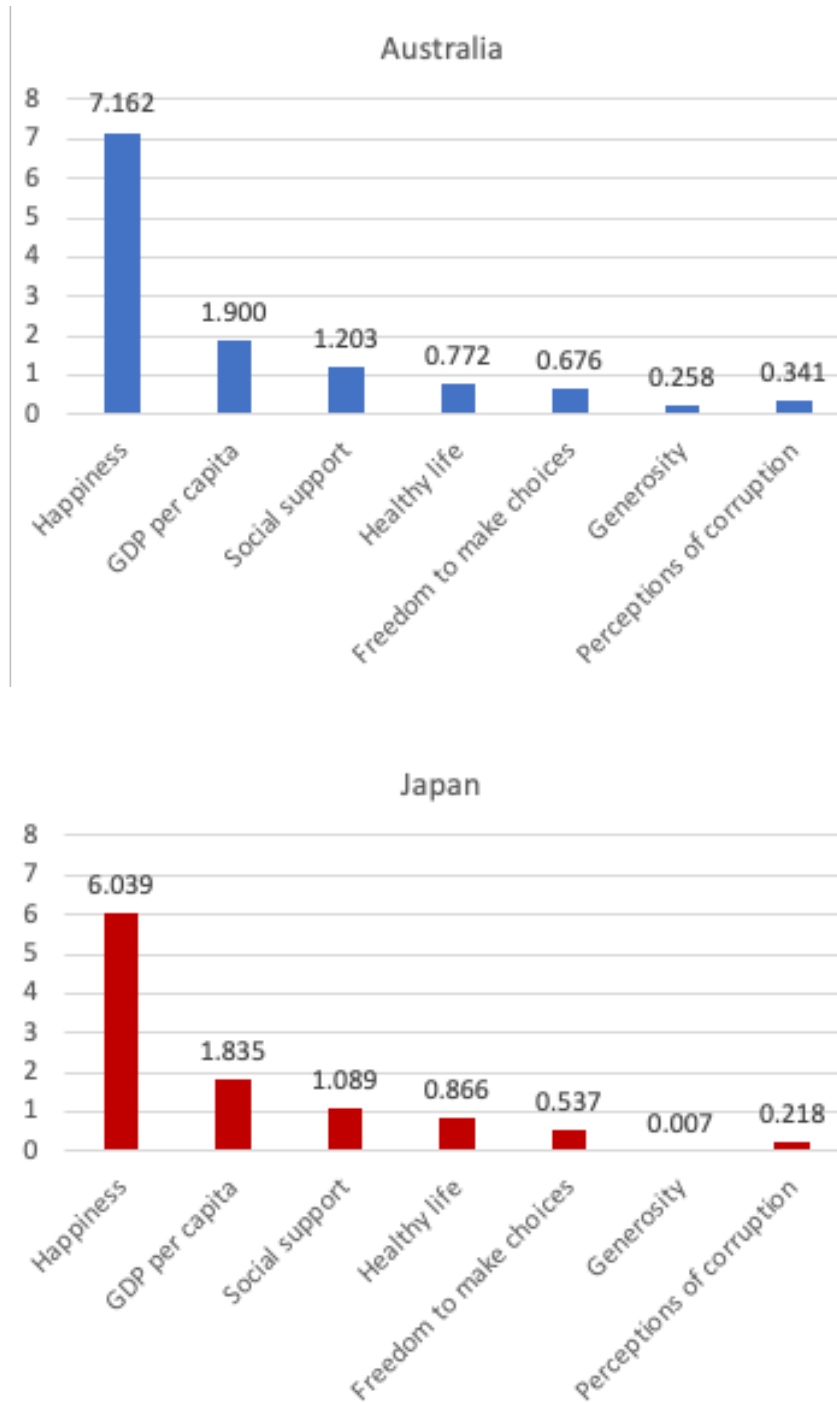
The World Happiness Report, published by the Sustainable Development Solutions Network compiles data from a global survey and provides insights across several measures into how citizens consider their progress in life. The individual elements are compiled into a single Happiness Index.

Helliwell *et al.* (2022: 1-2) outline the meaning and intent of the explanatory components that are aggregated to produce the summary Happiness Index:

- GDP per capita is a purchasing power parity measure.
- Healthy life expectancy measures how long people live on average.
- ‘Social support (or having someone to count on in times of trouble)’.
- Freedom to choose – is a measure of the degree to which an individual can make choices.
- Generosity measures the extent to which individuals donate to charities.
- Corruption perception measures perceptions of corrupt behaviour in government and private corporations.

Figure 11 reports the results for the 2022 survey for Australia and Japan. The average in 2022 for all countries in the survey was 5.2, which means that both Australia and Japan are above average. Australia was ranked twelfth overall of the 146 countries surveyed, while Japan was ranked fifty-fourth overall. Finland came out as the happiest country (rating 7.821), while Afghanistan was the unhappiest (rating 2.404).

Figure 11 World Happiness Report survey results, 2022, Australia and Japan



Source: World Happiness Report 2022.

In terms of the explanatory components, it appears that Japanese people are less inclined to value GDP per capita, and much more inclined than Australians to value being healthy and having a good health system. Australians are more generous it seems than the Japanese and record a higher social support result. Finally, Australians are much more aware of corruption in their public and private institutions relative to Japanese citizens.

The research task ahead is to explore these dimensions further and integrate them into the broader comparative analysis.

8. Conclusion

In this introductory comparative analysis, we have sought to highlight some of the similarities and differences between the behaviour of the Japanese economy relative to the Australian economy.

The analysis is intended to tease out further research questions that can be explored.

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- Mitchell, W.F., Wray, L.R. and Watts, M.J. (2019) *Macroeconomics*, Red Globe Press, London.