INTERNATIONAL MONETARY FUND

IMF Country Report No. 15/274

AUSTRALIA

September 2015

2015 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR AUSTRALIA

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2015 Article IV consultation with Australia, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its September 14, 2015 consideration of the staff report that concluded the Article IV consultation with Australia.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on September 14, 2015, following discussions that ended on June 24, 2015 with the officials of Australia on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on August 3, 2015.
- An **Informational Annex** prepared by the IMF staff.
- A **Staff Supplement** updating information on recent developments.
- A **Statement by the Executive Director** for Australia.

The documents listed below have been or will be separately released.

Selected Issues

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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Price: $18.00 per printed copy

International Monetary Fund
Washington, D.C.

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Press Release No. 15/446
FOR IMMEDIATE RELEASE
September 30, 2015

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2015 Article IV Consultation with Australia

On September 14, the Executive Board of the International Monetary Fund (IMF) concluded the 2015 Article IV consultation[1] with Australia.

Australia has enjoyed exceptionally strong income growth for the past two decades, supported by the boom in global demand for Australia’s natural resources and strong policy frameworks. However, the economy is now facing a large transition as the mining investment boom winds down and the terms of trade has fallen back. Growth has been below trend for two years. Annualized GDP growth was around 2.2 percent in the first half of 2015, with particularly weak final domestic demand, and declining public and private investment. Capacity utilization and a soft labor market point to a sizeable output gap. Nominal wage growth is weak, contributing to low inflation.

The terms of trade has fallen sharply over the past year. Iron ore prices have fallen by more than a third and Australia’s commodities prices are down by around a quarter since mid-2014. The exchange rate has depreciated further in recent months following news about economic and financial market developments in China. This has significantly reduced the likely degree of exchange rate overvaluation and should help support activity. Although the current account deficit narrowed to 2.8 percent of GDP in 2014 as mining-related imports declined, it is expected to widen somewhat in 2015.

With subdued inflation pressure, and a weaker outlook, the Reserve Bank of Australia (RBA) cut its policy rate by a further 50bps in the first half of 2015 to 2 percent. While housing investment has picked up strongly, consumer confidence indicators and investment expectations remain muted. Consumption growth has also been moderate reflecting weak income growth. But low interest rates have pushed up asset prices. Overall house price inflation is close to 10 percent, but is around 18 percent in Sydney. Buoyant housing investor lending has recently prompted regulatory action to reinforce sound residential mortgage lending practices.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Fiscal consolidation has become more difficult and public debt is rising, albeit from a low level. Lower export prices and weak wage growth are denting nominal tax revenues; unemployment is adding to expenditures. The national fiscal deficit remained at 3 percent in fiscal year (FY, July-June) 2014/15, broadly unchanged from the previous year. The FY 2015/16 Budget projects a return to surplus in 2019-20. The combination of tightening by the States and the commonwealth implies an improvement in the national cyclically-adjusted balance by some 0.7 of a percent of GDP on average over the next three years.

Executive Board Assessment[2]

Executive Directors commended Australia's strong economic performance over the past two decades, which has been underpinned by sound policies, the flexible exchange rate regime, earlier structural reforms, and a boom in the global demand for resources. They noted, however, that declining investment in mining and a sharp fall in the terms of trade are posing macroeconomic challenges, while potential growth is likely to slow in the period ahead. Accordingly, Directors agreed that continued efforts to support aggregate demand and raise productivity will be critical in transitioning to a broader-based and high growth path.

Directors noted that a supportive policy mix is needed to facilitate the structural changes underway. With a still sizeable output gap and subdued inflation, most Directors agreed that monetary policy is appropriately accommodative and could be eased further if the cyclical rebound disappoints, provided financial risks remain contained. Directors also noted that the floating exchange rate provides an important buffer for the economy.

Directors broadly agreed that a small surplus should remain a longer-term anchor of fiscal policy. In this regard, many Directors supported the authorities' planned pace of adjustment, which they viewed as striking the right balance between supporting near-term activity and addressing longer-term spending commitments. Some Directors, however, considered that consolidation could be somewhat less frontloaded, given ample fiscal space. Directors broadly concurred that boosting public investment would support demand, take pressure off monetary policy, and insure against downside risks. In this context, they welcomed the authorities' continuing to establish a pipeline of high-quality projects.

Directors highlighted that maintaining income growth at past rates and boosting potential growth would require higher productivity growth. They expressed confidence that this could be achieved, given Australia's strong institutions, flexible economy, track record of undertaking comprehensive structural reforms, and the opportunities created by Asia's rapid growth. Nonetheless, further reforms in a variety of areas will be required. In this regard, Directors noted the findings of the Competition Policy Review and looked forward to their implementation. Furthermore, addressing infrastructure needs will relieve bottlenecks and housing supply constraints. Directors also encouraged a shift toward more efficient taxes, while ensuring fairness.

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[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

Directors supported the recommendations of the Financial System Inquiry. They noted that while banks are sound and profitable, significantly higher capital would be needed in a severe adverse scenario to ensure a fully-functioning system. Accordingly, they welcomed the authorities' commitment to make banks' capital "unquestionably strong" over time. To address risks in the housing market, Directors supported targeted action by the regulator. They cautioned that if investor lending and house price inflation do not slow appreciably, these policies may need to be intensified.

Australia: Main Economic Indicators, 2010-2020

Annual percentage change (unless otherwise indicated)

	2013	2014	2015	2016	2017	2018	2019	2020
					Projjections			
NATIONAL ACCOUNTS								
Real GDP	2.1	2.7	2.5	3.0	3.1	3.0	2.9	2.8
Domestic demand	0.5	1.1	0.8	2.1	2.7	2.6	2.9	3.0
Private consumption	1.7	2.5	2.3	2.6	2.7	2.8	2.8	2.9
Public consumption	0.8	2.0	1.0	-0.1	0.9	1.3	1.8	2.0
Investment	-2.1	-2.2	-2.4	2.6	3.9	3.2	3.8	3.8
Public	-9.0	-0.8	0.0	0.1	0.2	-1.2	1.9	2.3
Private business	-1.8	-6.1	-6.5	2.3	4.7	4.5	4.5	4.5
Dwelling	0.4	7.9	7.3	5.1	4.6	3.4	3.3	3.2
Net exports (contribution to growth, percent)	1.6	1.7	1.7	1.0	0.5	0.4	0.1	0.0
Gross domestic income	1.2	1.1	0.2	2.4	3.1	2.6	3.0	2.9
Investment (percent of GDP)	27.6	26.7	26.3	26.5	26.7	26.9	27.0	27.2
Public	4.7	4.6	4.7	4.6	4.5	4.3	4.3	4.3
Private	22.9	22.1	21.6	21.9	22.2	22.6	22.7	22.9
Mining investment	6.1	5.2	3.9	1.7	1.7	1.7	1.7	1.7
Non-mining investment	21.5	21.4	22.4	24.9	25.0	25.2	25.4	25.5
Savings (gross, percent of GDP)	24.6	24.1	23.0	23.1	23.1	23.3	23.6	23.8
Potential output	2.7	2.9	2.7	2.8	2.8	2.6	2.6	2.6
Output gap (percent of potential)	-1.1	-1.3	-1.5	-1.3	-1.0	-0.6	-0.3	0.0
LABOR MARKET								
Employment	1.0	0.8	1.6	1.7	1.7	1.6	1.6	1.6
Unemployment (percent of labor force)	5.7	6.1	6.2	6.1	6.0	5.8	5.7	5.5
Wages (nominal percent change)	2.9	2.5	2.7	3.3	3.5	3.7	3.8	3.8
PRICES								
Terms of trade index (goods, avg)	100	92	82	80	80	79	80	80
% change	-3.8	-8.0	-10.8	-2.6	0.6	-1.5	1.1	0.4
Iron ore prices (index)	107	76	42	35	34	34	34	34
Coal prices (index)	95	79	64	66	66	66	66	66
Oil prices (Brent crude, index)	100	91	53	57	60	62	64	65
Consumer prices (avg)	2.4	2.5	1.8	2.6	2.4	2.5	2.5	2.5
GDP deflator (avg)	1.2	0.4	-0.8	1.7	1.9	2.0	2.2	2.3
FINANCIAL								
Reserve Bank of Australia cash rate (percent, avg)	2.7	2.5	1.7	1.8	2.2	2.6	3.0	3.4
10-year treasury bond yield (percent, avg)	3.7	3.7	2.1	2.3	2.7	3.1	3.5	3.9
Mortgage lending rate (percent, avg)	6.2	6.0	5.3	5.4	5.8	6.2	6.6	7.0
MACRO-FINANCIAL								
Credit to the private sector	7.3	8.6	6.2	5.2	5.4	4.9	4.7	4.4
House price index	113	120	129	136	142	147	151	155
% change	10.0	6.8	7.0	5.5	4.4	3.5	3.2	2.7
House price-to-income, capital cities	4.2	4.2	4.4	4.4	4.4	4.3	4.2	4.1
Interest payments (percent of disposable income)	8.9	8.9	8.0	8.7	9.3	9.9	10.3	10.7
Household savings (percent of disposable income)	9.5	8.5	8.0	7.8	7.8	7.8	7.9	8.0
Household debt (percent of disposable income)	150	154	159	161	162	161	158	155
Non-financial corporate debt (percent of GDP)	49	48	49	50	50	51	52	53
GENERAL GOVERNMENT (percent of GDP) 1/								
Revenue	34.1	34.2	34.9	35.1	35.5	35.9	36.3	36.4
Expenditure	36.9	37.1	37.5	37.1	36.5	36.3	36.4	36.4
Net lending/borrowing	-2.8	-2.9	-2.6	-2.0	-1.1	-0.4	-0.1	0.1
Operating balance	-1.6	-1.6	-1.3	-0.6	0.2	0.8	1.1	1.2
Cyclically adjusted balance	-2.4	-2.3	-2.0	-1.4	-0.7	-0.1	0.1	0.1
Gross debt	30.9	34.0	36.4	37.8	38.2	37.5	36.4	35.1
Net debt	13.2	15.7	17.8	18.7	18.7	18.0	17.0	15.9
Net worth	54.2	52.1	52.0	51.6	51.9	52.0	51.2	50.0
BALANCE OF PAYMENTS								
Current account (percent of GDP)	-3.3	-2.8	-3.4	-3.4	-3.6	-3.6	-3.5	-3.4
Export volume	6.2	6.8	6.2	5.3	5.2	5.1	4.3	3.7
Import volume	-1.8	-1.6	-2.0	0.8	3.5	3.9	4.7	4.5
Net international investment position (percent of GDP)	-54	-54	-57	-58	-58	-59	-60	-60
Gross official reserves (bn US$)	59	66	...	...	...	...	...	...
MEMORANDUM ITEMS								
Nominal GDP (bn A$)	1,551	1,600	1,626	1,704	1,790	1,880	1,977	2,080
Percent change	3.3	3.1	1.6	4.8	5.1	5.1	5.1	5.2
Real net national disposable income per capita (%	-1.1	-0.6	-1.9	-0.3	0.2	0.4	0.9	1.0
Population (million)	23	24	24	24	25	25	26	26
Nominal effective exchange rate	105	99	...	...	...	...	...	...
Real effective exchange rate	105	100	...	...	...	...	...	...

Sources: Authorities' data and IMF staff estimates and projections.

1/ Calendar year.

INTERNATIONAL MONETARY FUND

AUSTRALIA

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION

August 3, 2015

KEY ISSUES

Context: Outperformance fading

- Australia has enjoyed exceptionally strong income growth for the past two decades. But the waning resource investment boom and sharp fall in the terms of trade have brought this to a halt. A cyclical recovery is likely in the near term, but over the medium term, income growth is likely to slow to a rate in line with other advanced economies.

Policy agenda: Re-energizing growth by…

…sustaining demand through the resource boom transition…

- Monetary policy should remain accommodative given the sizeable output gap and subdued inflation, and stand ready to ease further should the recovery fall short of expectations and provided financial stability risks remain contained.
- A small surplus should remain a longer-term anchor of fiscal policy. But the planned consolidation is somewhat more frontloaded than desirable. Increasing public investment would support demand and insure against downside growth risks.

…lifting productivity to sustain strong income growth…

- Maintaining income growth at past rates requires higher productivity growth. There are few low-hanging fruit, but a range of reforms have been identified. Addressing infrastructure needs would relieve bottlenecks and housing supply constraints.
- The tax system should shift towards more efficient taxes, while ensuring fairness, including by preventing personal income tax bracket creep and reducing the corporate tax rate, paid for by higher GST revenue—while compensating those on lower incomes.

…and building resilience

- While sound and profitable, banks would require significantly higher capital in a severe adverse scenario to ensure a fully-functioning system. Raising mortgage risk weights will help, but capital ratios need to be increased substantially to ensure banks are "unquestionably" strong.
- The regulator has taken appropriately targeted action to address areas of risk in the housing market. If investor lending and house price inflation do not slow appreciably in the second half of the year, these policies may need to be intensified.

Approved By
Kalpana Kochhar and Sanjaya Panth

Discussions were held in Brisbane, Canberra, Melbourne and Sydney during June 11-24, 2015. The staff team comprised James Daniel (Head), Adil Mohommad, Dan Nyberg, Alexander Pitt, and Alison Stuart (all APD). Ioana Hussiada and Nadine Dubost assisted from HQ.

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CONTEXT: THE LONG BOOM WINDS DOWN

After years of rapid growth, Australia's outperformance is fading with a soft real economy, a maturing financial cycle and slowing potential growth.

A strong track record…

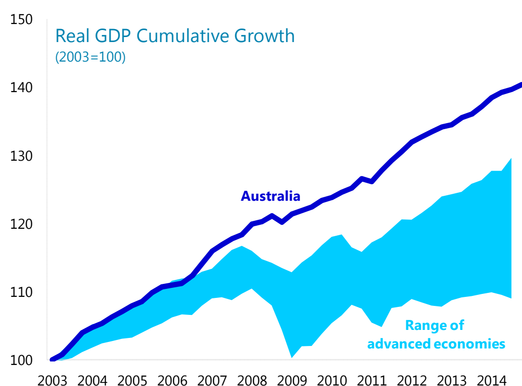
1. Australia has outperformed its peers for the past two decades:

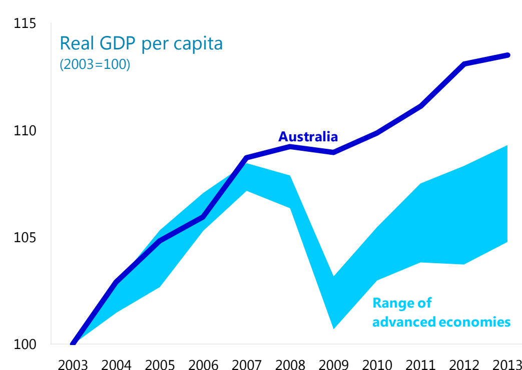
- ***GDP*** has grown twice as fast as its peers (averaging 3¼ percent since 1998), without a technical recession for 25 years.
- ***Per capita income*** has grown rapidly and stood at U.S. $61,000 in 2014—among the highest in the world.
- ***The fiscal position*** compares well to advanced economy peers with net debt only 15 percent of GDP compared to 79 percent on average for G20 advanced economies.

2. A boom in global demand for resources and migration have supported growth. From the early 2000s, strong growth in China led to an unprecedented rise in Australia's terms of trade and a resources investment boom. The resources sector expanded to around 10 percent of GDP, and accounted for close to half of GDP growth in the past three years. Net migration has contributed to a rapidly growing population, at 1½ percent a year, among the highest in the OECD.

3. The strong performance is also the product of sound policies and frameworks. The flexible exchange rate facilitated the shift in resource allocation to the resource sector and contained import price inflation during the investment boom. A flexible labor market helped accommodate the shift in employment to resource and related sectors without undue pressure on wage or price inflation. Credible monetary policy, strong institutions, sound financial sector supervision, and prudent and transparent fiscal frameworks fostered a strong business environment.

Australia has outperformed





Sources: Haver Analytics and IMF staff calculations.
Note: Area refers to the difference of min and max of real GDP per capita for EU, UK, US, Japan, Canada, and New Zealand.

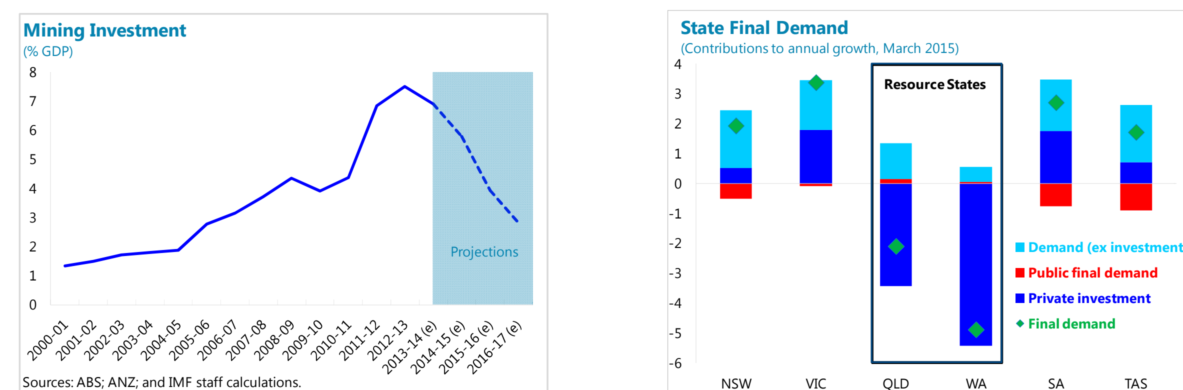
…but the real economy has hit a soft patch and is facing a large transition…

4. **Growth has been below trend for two years.** GDP grew by 2½ percent in the year to 2015 Q1, with particularly weak final domestic demand, and declining public and private investment. And a recovery in non-resource investment is only gradually coming through. Capacity utilization and a soft labor market point to a sizeable output gap.

5. **The economy is facing the largest swing in the terms of trade for 150 years**. The anticipated increase in the supply of resource commodities has been accompanied by sharper than expected falls in prices, in part reflecting slowing growth in China. Resource export volumes have continued to ramp up despite tumbling prices as Australian producers (especially iron ore) are very competitive with low marginal costs. Resource equity prices have fallen back, but since the mining companies have globally distributed shareholdings, the effect on profits is spread between Australia and abroad.

6. **With lower terms of trade, the economy has suffered falling incomes and unemployment has risen.** Real net national disposable income per capita has been flat or falling in the past four quarters. Unemployment has settled at a decade high of 6 percent (now above major advanced economy peers such as the US and the UK). Employment though has held up better than might have been expected, resulting in weak nominal wage growth, and contributing to low inflation.

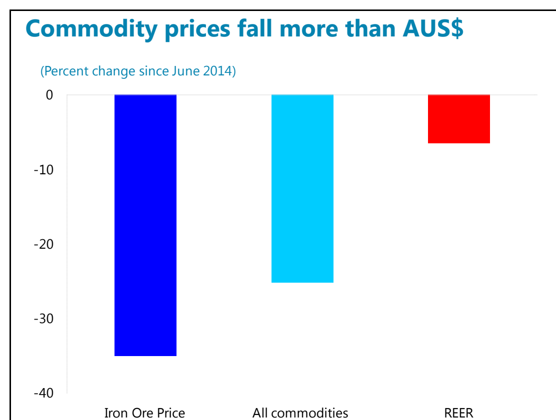
A difficult transition from the mining investment boom



Sources: ABS; ANZ; and IMF staff calculations.

7. **Recent interest rate cuts have yet to fully feed through to the broader economy.** With subdued inflation pressure and weakening outlook, the Reserve Bank of Australia (RBA) has cut its already accommodative policy rate by a further 50bps since February. While housing investment has picked up strongly, consumer confidence indicators are around average and investment expectations remain muted. Business conditions and capacity utilization have begun to pick up in recent months. Consumption growth has been moderate, reflecting weak income growth, although the household saving rate has begun to fall back from a high level.

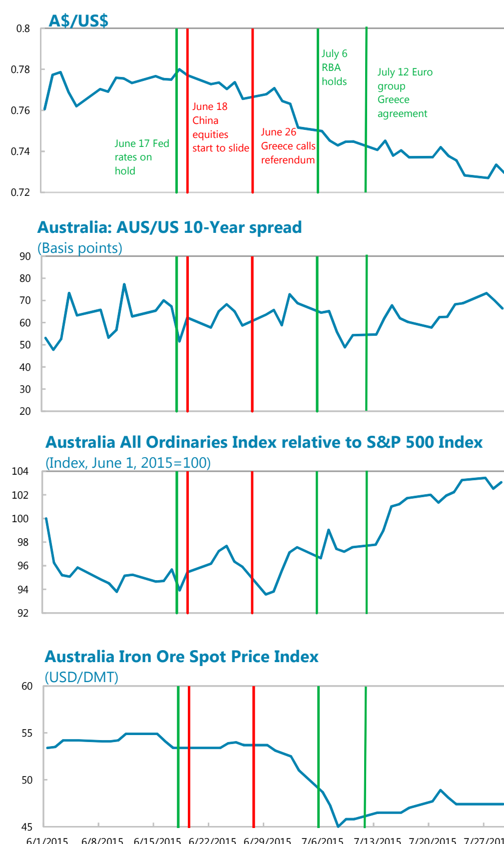
8. The exchange rate has depreciated but is still on the strong side. While iron ore prices have fallen by more than a third and Australia's commodities prices are down 25 percent since mid-2014, the real effective exchange rate was only 6 percent lower in June. Recent movements appear to be driven by shifts in the global economy—U.S. dollar appreciation, euro/yen depreciation and market volatility due to developments in China and Greece (see Box 1), coupled with still attractive Australian yields. Although the current account deficit narrowed to 2.8 percent of GDP in 2014 as mining-related imports declined, it is expected to widen in 2015 as export prices fall, and the net international liabilities position widens (Box 2 and Annex II).



Box 1. Australian Market Reaction to China and Greece Events

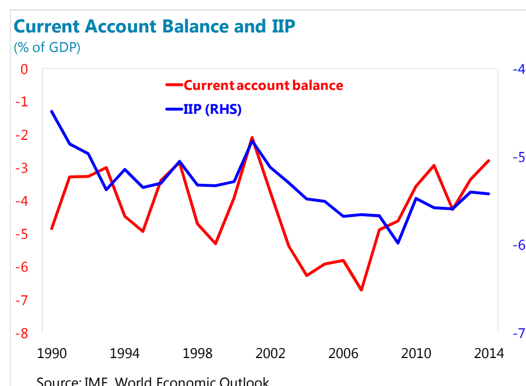
Market reaction to recent Greece/China developments has been relatively muted and in a direction that would help support activity.

- The exchange rate depreciated further against the U.S. dollar and in nominal effective terms.
- Long term bond spreads moved in a narrow range.
- Wholesale markets were unaffected.
- Ground lost on equities in early June (mainly resources and retail) was largely recouped by late July.
- The iron ore spot price has fallen back since June. It fell steeply to a low of $44 in early July partly influenced by developments in the Chinese equity market but also because of an inelastic supply response to a seasonal slowing of demand.



Box 2. External Sector Assessment

Australia has run a current account deficit for much of its history and has a negative IIP position. Official reserves are relatively small at 4½ percent of GDP, but with a strong commitment to a floating exchange rate there is less of a need for reserves and banks' external liability positions are either in domestic currency or hedged. Previous external sector assessments have pointed to an external sector position that is moderately weaker than warranted.



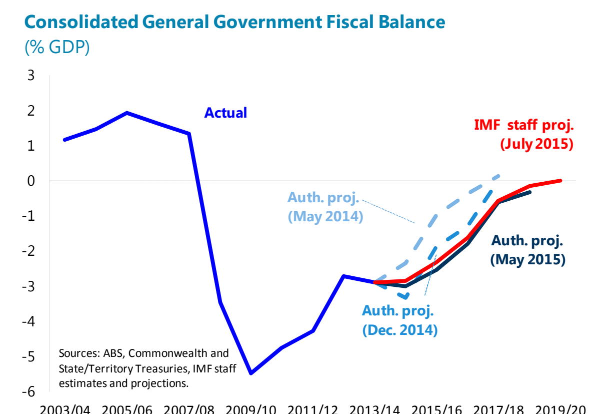
Since the summer of 2014 a confluence of large external shocks have affected the current account outlook—(1) sharply falling commodity export prices and terms of trade, (2) a decline in oil prices, and (3) large bilateral exchange rate movements for the U.S. dollar, euro and Yen, all with different effects on the current account:

- **Lower commodity export prices** are partly offset by the continued ramp up in export volumes resulting in a moderate decline in export values. Since the profits from Australian resource companies are globally distributed, the net income deficit stays at around 2 percent of GDP.
- **Lower oil prices** have a mild positive effect on the trade balance (net oil imports of 2 percent of GDP). But LNG prices have also declined as they are linked to the oil price with a lag. Over the medium term as Australia becomes a larger exporter of LNG, this effect will begin to dominate.
- **Bilateral exchange rate movements**. The Australian dollar has depreciated sharply against the U.S. dollar but by a smaller amount in nominal and real effective terms (down 9 percent from a recent peak). While this should help boost the competitiveness of non-resource exports—and there are signs that services exports are picking up—the real exchange rate still looks high relative to the decline in the terms of trade.
- **Lower mining investment** is contributing to a fall in capital goods imports and together with the depreciation should moderate import growth.

In 2015 the current account deficit is expected to widen to 3½ percent of GDP as the fall in resource exports outweighs the other developments. Over the medium term the current account deficit should remain contained at around 3½ percent of GDP as the trade balance narrows and the income deficit widens as global interest rates normalize and mining income accruing to foreign investors rises. The main effects on the domestic economy are reflected in the increase in the net exports contribution and the positive effect on rebalancing of growth from the lower exchange rate (see Outlook).

Staff assess that the external sector position remains moderately weaker and the real exchange rate moderately stronger than warranted by fundamentals. Model-based approaches in the IMF's External Balance Assessment for 2014 together with the trends through to May 2015 suggest that the real exchange rate appears overvalued by 0-15 percent and the current account is sustainable and looks around 0-1½ percent weaker than implied by medium-term fundamentals and desirable policies globally and domestically. The depreciation since June has narrowed the exchange rate gap a little. The strength of the Australian dollar may reflect the attractiveness of Australian assets with continued strong capital inflows, likely related to a global search for yield, and extraordinary monetary easing in the major advanced economies. Policy tightening in other advanced economies or monetary easing in Australia could result in a further depreciation, which would narrow the external imbalance and support the transition to non-resource based growth.

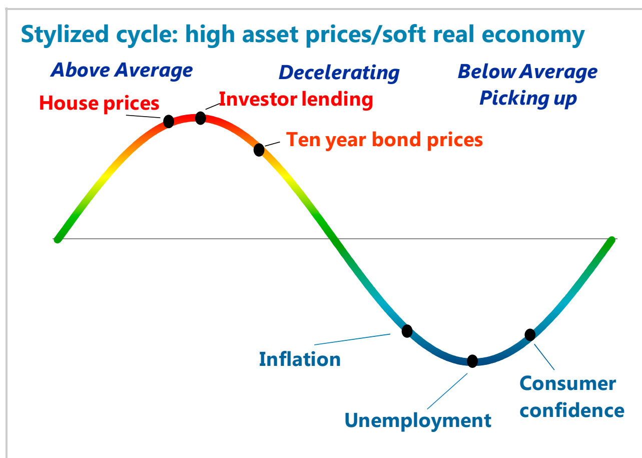
9. Fiscal consolidation has become more difficult and public debt is rising, albeit from a low level. Lower export prices and weak wage growth are denting nominal tax revenues and unemployment is adding to expenditures. This together with a lack of political support for some measures (changes to family benefits and smaller measures amounting to 0.4 percent of GDP by 2017/18) is making consolidation targets difficult to achieve. The national deficit is estimated at around 3 percent in 2014/15, broadly unchanged from 2013/2014. The May 2015/16 Budget projects a return to surplus in 2019-20. Public debt has been rising since the global financial crisis, although it remains substantially lower than in most advanced economies (Figure 5).



...and the financial cycle is maturing

10. The financial and real sectors are at different stages of the cycle. The output gap and the financial cycle have diverged since the peak of the mining investment boom in 2012. Low interest rates have helped push up asset prices and more interest sensitive sectors whereas the real economy has softened.

- In line with global developments, long-term bond yields have fallen over the past eighteen months, notwithstanding some reversal since April.
- Equity prices have continued to rise driven by financials, and despite the fall back in the resources sector.
- House prices are booming in Sydney, but the picture varies greatly across the country. Overall house price inflation is close to 10 percent, but is around 16 percent in Sydney (Box 3).
- The commercial and property development sectors, which are highly cyclical, are now turning down.



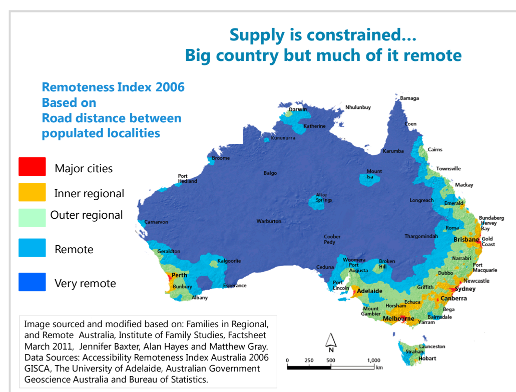
11. There are no signs of a generalized credit boom. Overall credit growth has continued at a moderate pace, picking up to 5.9 percent (y/y) in June. While credit to GDP is rising, this reflects weak nominal growth rather than rapid credit growth. However, housing credit is rising at a faster pace, 7.3 percent in June, led by investor credit at 10.9 percent, and accounting for almost half of all housing credit growth.

Box 3. Are Australian House Prices Overvalued?

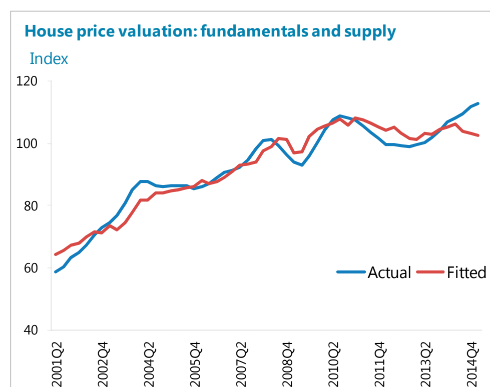
International comparisons persistently signal warnings. The level of real house prices and the house price to income ratio is high relative to the OECD average (though similar to other buoyant markets). House price inflation picked up to 7-10 percent in 2014-15—driven by rapid increases in Sydney and to a lesser extent Melbourne (prices in the resource states have fallen back in recent months). While foreign investment in real estate has increased, the main driver has been local investor lending and interest-only loans. Sydney house price to income ratios are much higher than for other cities at around 7—similar to Auckland, London, Stockholm and Vancouver.

Can the increase in house prices be explained?

- The housing market and financial system have changed significantly over the past two decades with a shift to low inflation, low nominal interest rates and financial liberalization which loosened credit constraints. Households' borrowing capacity increased and they moved to a higher steady state level of indebtedness and higher house prices relative to incomes.
- Supply side constraints may also keep prices high. Although Australia is big, much of the country is remote and the population is concentrated in a few cities where there are geographical or other barriers to expansion. Population growth has also been much more rapid than for other OECD countries, whereas housing investment as a share of GDP is only at OECD average levels. Supply bottlenecks also reflect planning issues and transport restrictions.

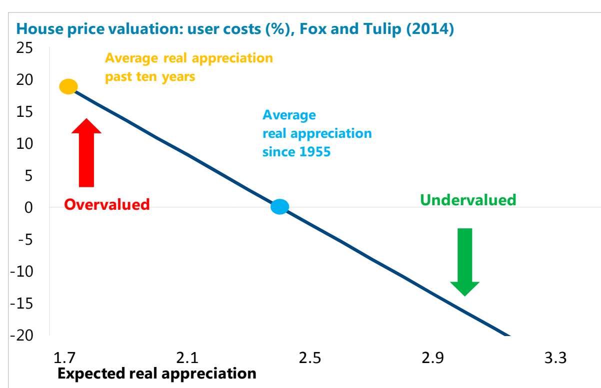


Are high and rising prices a problem? There has been no generalized credit boom and lending standards are generally high (and being tightened), so financial stability risks seem contained. The run-up in house prices has also not been accompanied by a construction boom (unlike Ireland and Spain). But with already high debt and house prices, rapid house price inflation raises the risk of a sharp reversal, which would damage the macroeconomy.



Do models point to overvaluation? Estimating overvaluation is inherently difficult. Rather than relying on one model, staff used four different approaches.

- **Statistical filter.** Deviations from an HP filter suggest overvaluation of about 5 percent.
- **Fundamentals.** The standard model used in the Fund, estimated since the early 2000s, with fundamental explanatory variables—affordability, incomes, interest rates, and demographics—estimates overvaluation of around 15 percent and equilibrium growth rates around 3-4 percent.
- **Including supply factors.** A model using similar long-run fundamentals, but adding credit and the housing stock to take into account supply constraints, points to an overvaluation of around 8-10 percent.
- **User costs.** Estimates of user costs (whether it is more expensive to own than to rent) suggests that renting is about as costly as buying a house based on average real appreciation since 1955 (Fox and Tulip, 2014). However, this estimate is highly sensitive to interest rates and expectations of future house price appreciation. Using a plausibly lower expected appreciation term results in an overvaluation of 10-19 percent.



Bottom line: House prices are moderately overvalued, probably around 10 percent. The problem is concentrated in Sydney and is fuelled by investor credit and interest only loans. Current rates of house price inflation imply rising overvaluation.

12. Buoyant housing investor lending has prompted regulatory action. The Australian Prudential Regulation Authority (APRA) adopted a gradual and targeted approach and advised banks in December 2014 that it would focus on higher risk mortgage lending (interest only and high loan to income or value ratios), reining in growth of investor lending above 10 percent a year, and strengthening loan serviceability tests (by increasing interest rate buffers and floors). Failure by banks to take action would trigger more intense supervisory action, potentially including additional capital requirements. The Australian Securities and Investments Commission (ASIC) is reviewing whether mortgage lenders' interest-only lending complies with their responsible lending obligations. Banks have responded since mid-2015 by reducing discounts on investor lending, curtailing high loan to value ratio loans and tightening interest only lending, though these are yet to be reflected in lending data given preapproval lags of 2-3 months. Separately, in response to the findings of the Financial System Inquiry, APRA announced that capital adequacy requirements for large banks using the internal risk based ratings approach would be increased (see Box 7).

13. Political setting. The Liberal-National coalition is more than half way through its term in office with the next federal election due by January 2017. The coalition has a majority in House of Representatives but not in the Senate.

OUTLOOK AND RISKS: NEGOTIATING A DIFFICULT TRANSITION

"We are now witnessing the largest fall in the terms of trade since records began...,"
Treasurer Hockey, December 2014

A. Outlook: A cyclical pick up; but weaker medium-term prospects

14. Growth should pick up through 2016.

- ***Net export volumes*** rise despite lower commodity prices. In the baseline with growth in China moderating to a safer and more sustainable rate, Australian iron ore producers continue to ratchet up export volumes, as they remain competitive even at current lower prices and can displace less competitive producers. LNG exports also come on stream, with Australia set to become the world's largest exporter. And services exports improve with the lower exchange rate.

- ***Investment*** contributes to growth in the short run. Though resource investment is scaled back

Medium Term Forecasts (calendar year) 1/

	2015	2016	2017
GDP growth			
RBA	2.25	2.5-3.5	
Treasury 2/	2.5	2.75	3.25
Consensus	2.5	2.9	3.2
IMF	2.5	3.0	3.1
CPI inflation 3/			
RBA	2.50	2.0-3.0	
Treasury 2/	1.75	2.5	2.5
Consensus	1.8	2.7	2.7
IMF	1.8	2.6	2.4
Unemployment			
RBA	...	...	
Treasury 2/	6.25	6.5	6.25
Consensus	...	...	...
IMF	6.2	6.1	6.0

1/ Data sources: Staff projections, RBA Monetary Policy Statement (May 2015), Treasury Budget 2015 (May 2015), and Consensus forecasts from Consensus Economics Inc. (June 2015).

2/ Fiscal year; e.g. 2015 represents FY 2014-15.

3/ Annual average for IMF, Treasury, and Consensus; end of period for RBA.

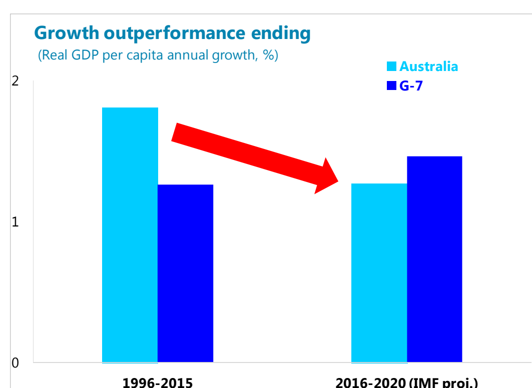
further, residential investment continues to grow and business investment gradually turns around as improvements in business confidence and rising capacity utilization feed through. The recovery is supported by strong corporate balance sheets, the weaker exchange rate, historically low interest rates and contained wages pressure .

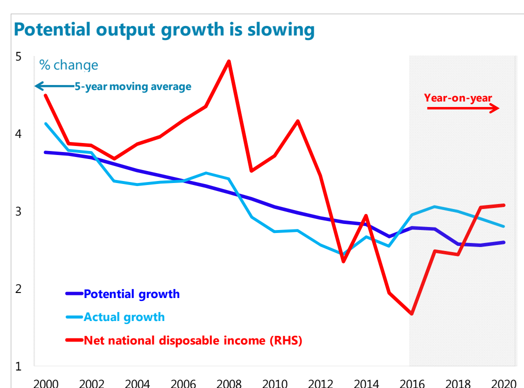
- ***Consumption*** growth remains restrained in the near term with low wage growth, and more muted income expectations—as the financial cycle matures and house price inflation slows. But it improves further ahead, underpinned by rising confidence, a drawdown of the savings ratio from high levels, and a pickup in income growth following the stabilization of the terms of trade.

15. Inflation stays in line with the RBA's target of 2-3 percent. Inflation expectations are well anchored. Tradables inflation rises as the effects of the exchange rate depreciation pass through and oil prices stabilize. But non tradables inflation remains relatively contained, dampened by weak wages growth.

16. But Australia's outperformance is likely to fade in the medium term. Medium-term potential growth is likely to be around 2½ percent rather than the 3¼ percent of the past, bringing per capita GDP growth back to the advanced economy average of around 1 percent.

17. The financial cycle is likely to decelerate. The policy rate is expected by markets to eventually begin rising, while inflation remains well anchored in line with the target of 2-3 percent. Banks are likely to raise capital ratios (Box 4). Growth of lending for housing, the bulk of total lending, is likely to slow as house price inflation moderates partly in response to higher interest rates. This, combined with high household debt, and fiscal consolidation picking up, may all slow the closing of the output gap.

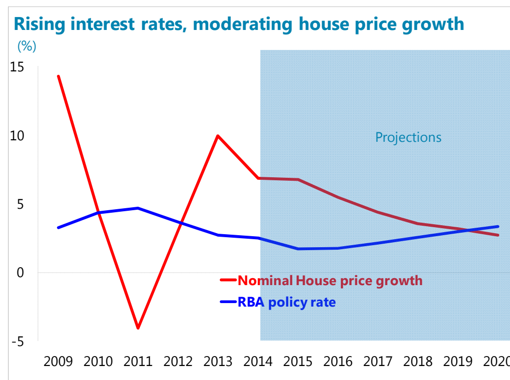


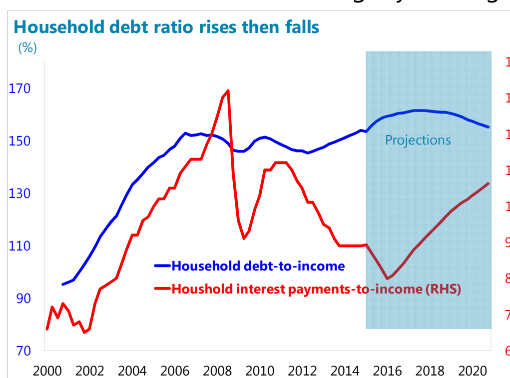


Box 4. Macro-financial Outlook

With a large financial sector, high household debt, and much of household wealth in housing, assessing Australia's economic outlook requires integrating macro-financial variables into the macroeconomic framework.

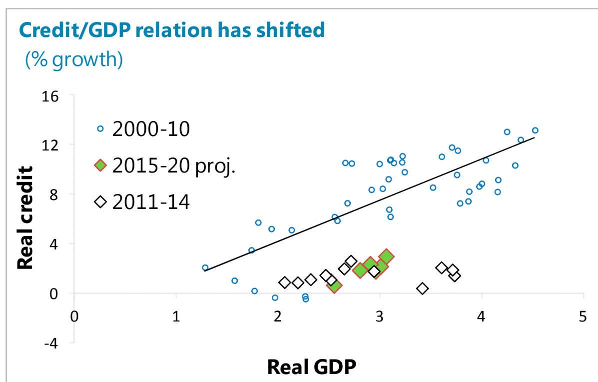
- **House prices.** The baseline projection is for a soft landing, with house price inflation slowing to a sustainable 3-4 percent, based on medium-term fundamentals. This implies no change in the estimated overvaluation and housing market risks thus remain heightened.
- **Household debt.** Projected increases in house prices would raise nominal household debt, but income growth should gather pace, resulting in the debt ratio initially rising before falling gradually.
- **Credit to the private sector** is assumed to grow as a weighted average of house price increases and business investment. This results in slightly slowing growth. However, combined with deposits staying broadly constant as a share of GDP, this results in no further reduction in banks' use of wholesale funding.
- **Bank balance sheets.** Slower growth in risk-weighted assets is expected to reduce profitability somewhat. Following the increase in mortgage risk weights in 2016 (see paragraph 13), the CET1 capital dips to 9 percent but then rises to around 10 percent through profit retention. Further increases could be achieved by reducing dividend payout ratios.





Historical relationships between house prices, credit, and activity help check the consistency of macro projections. For example:

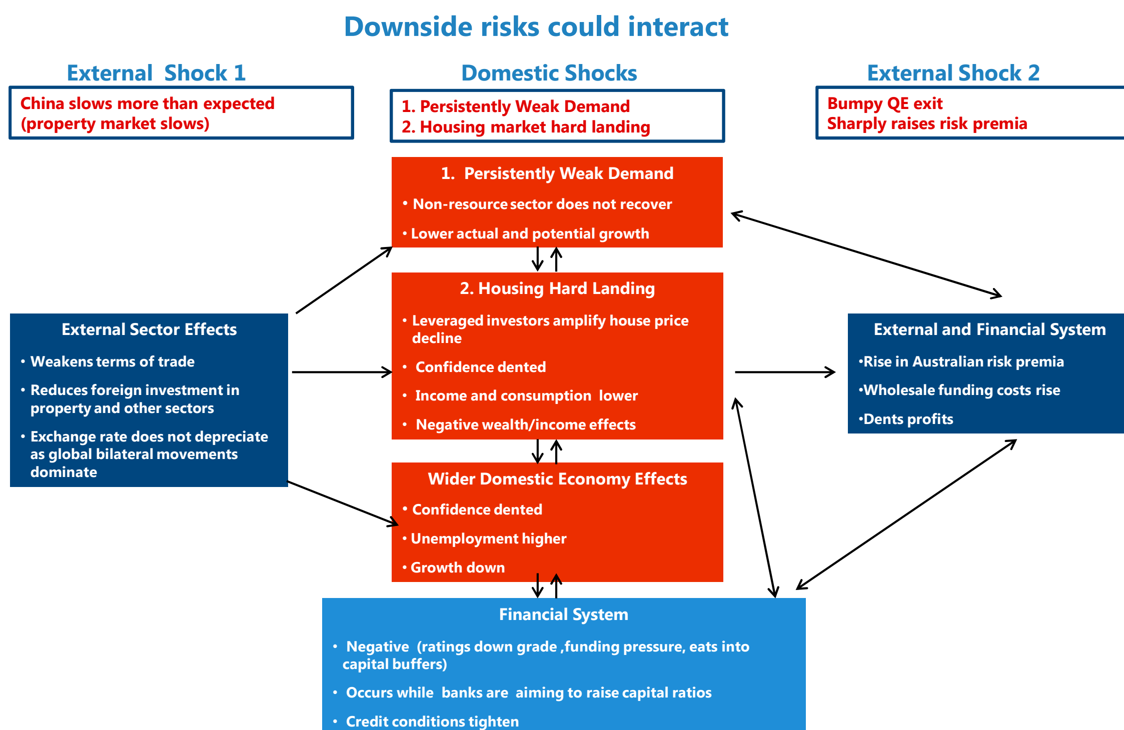
- **Credit and activity:** Historically, credit and GDP have shown a strong positive relationship, which appears to have flattened recently. The projections are based on this flatter relationship. The projections for private consumption and household credit, as well as non-housing investment and business credit, are in line with recent historical relationships.



- **House prices and activity:** The projected path of dwelling investment and house prices is somewhat higher than implied by the recent past, but it broadly reflects the current strong momentum in housing construction and record high housing approvals. The private consumption growth forecast is also somewhat stronger than suggested by recent experience and reflects a continued gradual moderation of the current high household savings rate.
- **House prices and credit:** The growth of housing credit (for owner occupied houses) is projected in line with what recent house price inflation and housing credit growth would suggest.

B. Risks Skewed Downwards: Payoffs from Active Policies

18. Housing and China risks loom. While Australia's overall vulnerabilities are low, several distinct downside risks could interact and exacerbate the impact on the economy (Risk Assessment Matrix).



- ***Persistently weak domestic demand.*** Non-resource demand could be slower to pick up (for example, due to a weak transmission of monetary policy to consumer demand and business investment) and further terms of trade falls could entrench slower growth, higher unemployment and fiscal deficits, especially if there is reform inertia, and in a scenario where there are global deflationary forces and/or falling house prices.

- ***Housing market hard landing.*** Current efforts to rein in riskier property lending might not be sufficiently effective. Against a backdrop of already high house prices and household debt, this could give rise to price overshooting and excessive risk taking. A sharp correction in house prices, possibly driven by Sydney, could be triggered by external conditions (e.g., a sharper slowdown in China or a rise in global risk premia, Box 5) or a domestic shock to employment. This might have wider ramifications if it affects confidence. The house price cycle could be amplified by leveraged investors looking to exit the market and a turning commercial property cycle. Though currently small, investors in self managed superannuation funds that have added geared property to their fund portfolios would also be adversely affected in a downturn. In a tail scenario, APRA's stress tests (Box 8) suggest banks would probably face ratings downgrades/higher offshore funding costs and would likely resist capital ratios falling into

capital conservation territory by sharply tightening credit conditions, thus transmitting and amplifying the shock to the rest of the economy.

Box 5. Balance Sheet Risks—Housing and Foreign Borrowing

The composition of an economy's assets and liabilities can help to illustrate likely resilience to financial shocks and identify vulnerabilities. It can also highlight the main transmission channels of risk. For Australia the key issue is:

- **Net liability position with the rest of the world.** Throughout its history Australia has been a capital importer with an overall net liability position with the rest of the world. This reflects very high private investment relative to a savings rate that is already high by international standards. As a result, the net liability position has ranged from 50 to around 60 percent of GDP since 1994. This could give rise to vulnerabilities were the rest of the world to become much less willing or able to lend to Australia. However, these vulnerabilities are substantially mitigated as most liabilities are Australian dollar denominated whereas the majority of foreign assets are in foreign currency, leaving Australia with a net foreign currency asset position. The banking sector, which has a net foreign currency liability position, is fully hedged. The balance sheet would thus improve rather than worsen in the face of a sudden Australian dollar depreciation.

The main transmission channels are:

- **Banks' use of external funding**. Households could be vulnerable in the face of a foreign funding induced shock; especially given a high level of household debt, much of which is at a floating interest rate—higher funding costs would likely be passed on by banks to households which may stretch the capacity to repay though currently households have mortgage buffers (two years debt service).
- **Other financial institutions.** The growth of superannuation funds is increasing households' exposure to changes in equity wealth, and away from other, possibly more stable, forms of saving (e.g. bank deposits).
- **Non financial corporate sector** has a net liability position with other sectors and with the external sector but has a small net foreign currency asset position. Large private non financial corporations (global resource sector conglomerates) typically finance themselves abroad and profits are globally distributed.
- **Strong public balance sheet with a small negative net financial worth.** The government is a AAA borrower, and borrows in domestic currency. The public sector, RBA and the Future Fund have net foreign currency asset positions.

Balance Sheet Matrix

March 2015 (In percent of GDP)

Holder of Asset (vertical)

Issuer of Liability (horizontal)	Government		Central Bank		Banks		Other Financial Institutions		Corporates		Households		External	
	A	L	A	L	A	L	A	L	A	L	A	L	A	L
Government			2	4	5	8	4	2	4	8	26	7	18	6
Central Bank	4	2			2	1	0	2	2	0	2	0	0	5
Banks	8	4	1	2			46	29	26	39	65	91	76	45
Other Financial Institutions	2	4	2	0	29	46			4	43	132	29	25	38
Of which Corporates	8	4	0	2	36	26	43	4			22	1	59	28
Of which Households	7	26	0	2	91	65	29	132	1	23			4	9
External	6	18	5	0	44	76	38	25	29	59	9	4		

- **Two key external risks could trigger or amplify these risks.**
  - ***China.*** A sharp growth slowdown accompanied by market volatility, and/or fall in property investment, could lead to a further large fall in demand for Australia's commodity exports**.** Over half of Australia's exports go to emerging Asia and nearly two thirds are non-rural commodity exports. An unexpectedly sharp fall in iron ore prices could reduce prices below production costs, and further dent incomes and growth. It would also likely dent foreign investment in Australian property and other markets, adversely affecting prices.
  - ***Tighter or more volatile global financial conditions.*** An orderly QE exit in the United States would likely have a positive impact on Australia by weakening the exchange rate and fostering the recovery of the non-resource sector. However, a bumpy exit, or Euro Area turbulence could raise volatility and wholesale funding costs, and this could be amplified by low market liquidity. This could be passed on to mortgage lending costs, resulting in a real estate downturn.

19. These are partly offset by upside risks. With supportive monetary policy, possibly accompanied by productivity-enhancing reforms, business investment and domestic demand could pick up more than in the baseline, creating virtuous feedback loops with the labor market, household confidence and spending. A sharper decline in the real exchange rate could boost export competitiveness and improve investment prospects. Growth in middle-income Asia could also turn out stronger than expected, adding to demand for Australian services exports.

20. There is policy space to cushion downside risks. Targeted prudential actions could potentially help to engineer a soft landing of the housing market similar to in the early 2000s. Should downside risks materialize, the RBA has scope to ease policy further and low government debt allows more supportive fiscal policy, including through discretionary recurrent stimulus if needed. Foreign exchange intervention could also be employed in times of market dysfunction as it was during the global financial crisis.

	Significant Risks, Skewed Somewhat to the Downside	Likelihood	Impact
Upside	1. Domestic demand recovers more strongly, supported by policy actions	**Medium**	**High**
	2. Iron ore prices recover strongly from current lows and raise the terms of trade	**Low**	**High**
	3. Middle-income Asia boosts demand for services exports	**Low**	**Medium**
Downside	1. Persistently weak domestic demand	**Medium**	**High**
	2. Housing market hard landing	**Medium**	**High**
	3. Structurally weak growth in China – medium term	**Medium**	**High**
	A sharp slowdown in growth in China in 2015/16 – short term	**Low**	
	4. Tighter or more volatile global financial conditions.	**High/ Medium**	**Medium**

Spillovers

21. Risks could potentially spillover to neighboring economies. New Zealand is Australia's most important trade and financial partner, and is vulnerable to a sharp slowdown in Australia's economic prospects. Australian bank subsidiaries make up 90 percent of New Zealand's banking system. As subsidiaries rather than branches however, New Zealand banks are ring fenced, do not rely on their parents for funding, and are well capitalized with substantial liquidity buffers, although they would likely suffer indirect reputational effects from financial stress in the parent which could affect access to offshore wholesale funding. Statutory obligations underpin cross-border cooperation between the two countries, strengthening regulatory and supervisory oversight. With a common labor market, net migration between the two countries is also important—and as Australia has slowed, net migration to New Zealand has turned positive.

22. Trade and financial linkages would also result in spillovers to the Pacific Island Countries (PICs). Spillover channels vary across the PICs. Australia accounts, on average, for 20 percent of PICs' trade, while tourist arrivals from Australia account for about 50 percent of total arrivals in Fiji and Vanuatu. Remittances from Australia represent around 35 percent of the total in Fiji, Samoa, and Vanuatu. Financial linkages are also important with the PICs' banking sector dominated by Australian banks. Australia is also by far the largest aid donor—and its aid budget has been reduced—as well as the largest foreign investor.

Authorities' Views

23. Economic conditions were in place to generate a gradual strengthening of growth supported by highly accommodative monetary policy settings. The economy was considered to have performed solidly in the context of an unprecedented fall in the terms of trade and the associated waning of the resources investment boom. The recent decline in the exchange rate would help the transition to stronger and more balanced growth although a further depreciation would assist. Weak income growth was weighing on domestic demand, although moderate wages growth was also supporting employment and the economy's growth transition. The timing of the anticipated strengthening of growth in the non-mining economy was uncertain and the authorities viewed the possibility of a sharper than expected slowdown in China as the main external risk, while noting that the floating exchange rate plays a key role in cushioning the economy against such shocks.

24. Housing prices were rising but the risks should not be overstated. Accommodative monetary policy had supported strong demand for housing, raising house prices and increasing dwelling construction, contributing to the economy's transition to broader-based growth. Rapid house price growth was concentrated in Sydney and only limited market segments of Melbourne, but there was no evidence of widespread oversupply and most mortgage holders had accumulated sizeable repayment buffers. The coordinated policy actions announced by APRA in December 2014 were taking effect (see paragraph 50). There remained policy space to respond to risks that materialize—and it would be used actively if needed to contain the likelihood of an adverse event.

POLICIES TO RE-ENERGIZE GROWTH

Reinvigorating the outlook requires policymakers being on the front foot to enable Australia to make the most of its considerable potential. This means:

- ***Sustaining aggregate demand*** in the shorter term through the resource cycle transition
- ***Lifting productivity*** in the longer term to sustain strong income growth
- ***Building resilience*** and reducing the macroeconomic and financial vulnerabilities that could throw the transition to broader-based growth off course

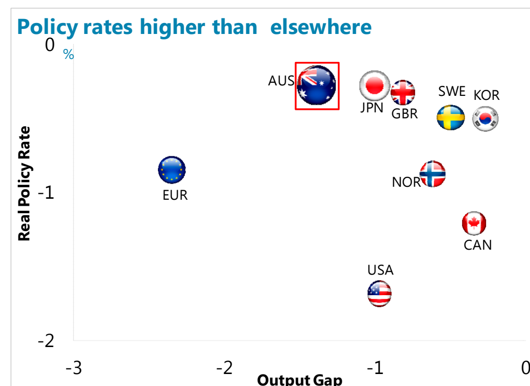
A. Sustaining Aggregate Demand Through The Resource Cycle Transition

"Monetary policy alone can't deliver everything we need and expecting too much from it can lead, in time, to much bigger problems"
RBA Governor Stevens June 2015

Context

25. The sizeable output gap and the large structural transition of the economy call for supportive aggregate demand policies. Inflation pressures are weak and the demand outlook is subdued against a backdrop of higher unemployment and lower income growth. The exchange rate also appears still on the strong side when compared with the steep fall in the terms of trade.

26. Monetary policy is accommodative, and could become more so. While the policy rate is at an historic low at 2 percent, it remains high in real terms compared to peer countries with similar output gaps and the neutral rate may well have fallen. Further rate cuts would, however, stoke house price inflation and already high household debt levels may restrain the impact on consumption while heightening financial stability concerns.



27. Fiscal policy is imparting a substantial negative impulse. The combination of tightening by the States and the Commonwealth implies that the national cyclically-adjusted balance improves by some ¾ of a percent of GDP on average over the next three years. The envisaged tightening by the Commonwealth budget relies on historically strong revenue (reflecting bracket creep) and low spending growth (including on account of some as yet unlegislated budget measures).

Staff Views

28. Monetary policy should remain accommodative and could loosen further if the recovery falls short of expectations, provided financial stability risks remain contained.

- ***Asymmetric risks for monetary policy***—inflation expectations are well anchored and core inflation and growth appear more likely to under- rather than over-shoot. A weaker exchange rate would also help the recovery and the external position.

- ***Housing market risks should be firmly addressed by prudential policy***. While credit growth and the housing market overall do not appear substantially overheated, there are clearly specific areas of concern relating to the Sydney housing market, and to investor and interest-only lending. This calls for a targeted prudential rather than a blunt monetary policy response. Indeed, APRA is already taking targeted measures which could be built upon if needed (see Building Resilience).

- ***Policy tradeoffs***. Cutting rates if the recovery disappoints would provide insurance against a sharper slowdown, though it may require a steeper tightening once the economy gathers steam. By contrast, keeping rates higher than warranted by output and inflation should only be considered if financial stability risks become broad based—with overheating of both credit and housing indicators—and if prudential policy is insufficient to contain risks. Then "leaning against the wind' might be appropriate as part of a broader prudential strategy to rein in financial stability risks. The benefits would need to be weighed against the output costs and the risk of policy reversals. Similarly, prudential measures aimed at building the resilience of the financial system should be implemented in a gradual manner to minimize the effects on growth.

- ***Timely high frequency data*** are important for policy to be able to react quickly to changing conditions. The quality of the labor market data could be enhanced and the lack of monthly consumer price inflation data is a key gap that the Australian Bureau of Statistics should fill.

29. Slowing the pace of fiscal consolidation. A small surplus should remain a longer-term anchor of fiscal policy and a credible, though gradual medium-term consolidation path should be maintained. But, staff assesses the planned pace of consolidation nationally (Commonwealth and states combined) as somewhat more frontloaded than desirable given the weakness of the economy, the size and uncertainty around the transition from the mining investment boom and the possible limits to the effectiveness of monetary policy.

Substantial fiscal consolidation in the next 3 years

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Act.	IMF staff projections				
Fiscal balance (% GDP)	-2.9	-2.3	-1.6	-0.6	-0.2	0.0
Cyclically adjusted	-2.2	-1.7	-1.1	-0.2	0.0	0.1
Change (ppts)	0.1	0.5	0.6	0.9	0.3	0.0

30. Boosting public investment. Raising public investment (financed by borrowing, thus reducing the pace of deficit reduction) would support aggregate demand, take pressure off

monetary policy, and insure against downside growth risks. It would employ resources released by the mining sector, catalyze private investment, boost productivity, could ease housing supply bottlenecks and would take advantage of record low interest rates. Net public investment in Australia is higher than in advanced OECD peers, but has subtracted from growth in recent years, and the public capital stock is projected to fall as a percentage of GDP over the medium term. At the same time, Australia is well positioned to benefit from public infrastructure investment—with efficient processes, an output gap, accommodative monetary policy and fiscal space allowing debt financing. These are key factors for maximizing the short- and long-run benefits with little effect on the debt to GDP ratio, as outlined in the WEO (October 2014).

31. Careful coordination would be needed. Boosting public investment in the short term is difficult given inherent lags, and thus calls for strong governance to ensure there is no waste. As most public investment is carried out by states and territories who face borrowing constraints, this requires coordination between different levels of government and broader federal support. Greater focus in budgeting on the national fiscal stance, on strengthening the operating balance (which excludes capital spending) rather than the overall balance, and on increasing the public capital stock, could help frame the debate. A strategy could include:

- ***Small as well as large projects***. Broadening the scope of investments supported by the Commonwealth, for example, to a wider range of projects, including repairs and maintenance.
- ***A pipeline.*** Continuing to establish a pipeline of quality larger projects with transparent cost-benefit analysis, such as that being prepared by Infrastructure Australia. Broad political support for such a pipeline would reduce uncertainty and boost confidence.
- ***Guarantees.*** In addition to direct funding arrangements, the Commonwealth could consider guaranteeing states' borrowing for additional investment—this would keep the accountability with the states, but reduce their concerns about credit ratings and would not affect the Commonwealth's deficit.

32. Nonetheless, restoring a small budget surplus in the longer term is appropriate and should remain a fiscal anchor. Australia's low public debt is a critical buffer against potential external and domestic shocks and helps sustain the country's AAA rating, and the strong ratings of its banks. Indeed, additional measures may be required to ensure the envisaged consolidation of the recurrent budget stays on track.

Authorities' Views

33. The authorities agreed that growth was likely to continue at a below trend pace in the near term but improve as the economy rebalances.

- The RBA noted that with an output gap, subdued labor costs and inflation expected to remain in line with the target of 2-3 percent on average, there was scope for further policy easing in the period ahead if required. But there was also a limit to the extent to which monetary policy could fine tune growth prospects. Exchange rate developments would also be key; a lower real effective exchange rate was likely to be needed to achieve balanced growth. An exit from

unconventional monetary policies in the U.S. could contribute to a lower Australian dollar and help facilitate adjustment.

- The government emphasized that a return to a budget surplus remained a priority to preserve its favorable standing with external creditors. The 2015/16 budget already planned a slower withdrawal of fiscal stimulus than the previous budget. They were also mindful that challenges were looming in light of social spending commitments over the longer term which could limit the scope for easing the pace of consolidation. They concurred that addressing infrastructure bottlenecks was a key priority and funding of high quality infrastructure projects was a key focus. They also pointed to substantial existing planned investments, including the national broadband network, with total general government investment over coming years expected to remain above levels of the 1990s and early 2000s. The authorities' Asset Recycling Initiative and Northern Australia Infrastructure Facility provided scope for additional investment in high priority infrastructure projects as they are identified, while meeting the government's medium-term fiscal strategy.

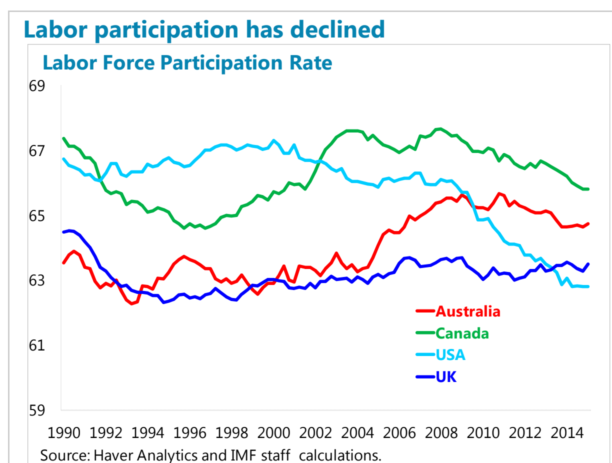
B. Lifting Productivity and Income Growth

"We are in our 24th consecutive year of economic growth. We cannot take for granted another decade of economic growth, we have to earn it."
Treasurer Hockey, December 2014

Context

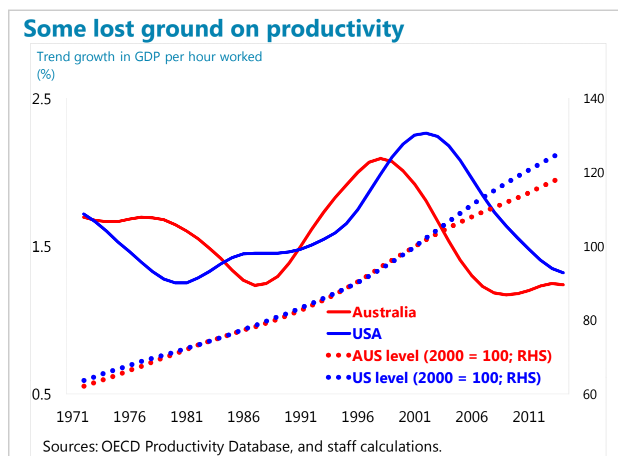
34. The drivers of growth—1990s structural reforms and the mining investment boom—have now waned. Maintaining the same growth rate and rise in incomes will be challenging.

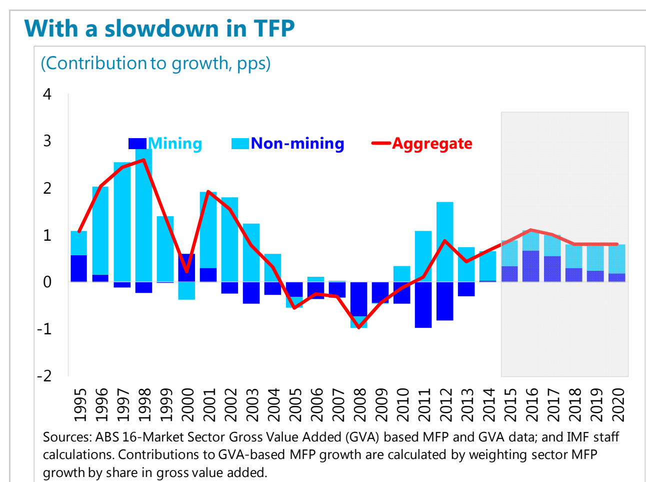
- ***While population growth will continue to support output growth, labor force participation is likely to decline***. The participation rate has fallen back from a peak in 2010 to 64.7 percent in 2014-Q4 and is expected to decline slightly over the medium term as aging pressures emerge.



Source: Haver Analytics and IMF staff calculations.

- ***Productivity has lost ground.*** Australia, like other economies, benefited in the 1990s from the global impact of technological progress in information and communications technology and the effect of Australia's structural reforms came through. Though better than the OECD average, growth in output per hour has slowed since the mid 2000s and a productivity gap has opened up against best-performing peers.



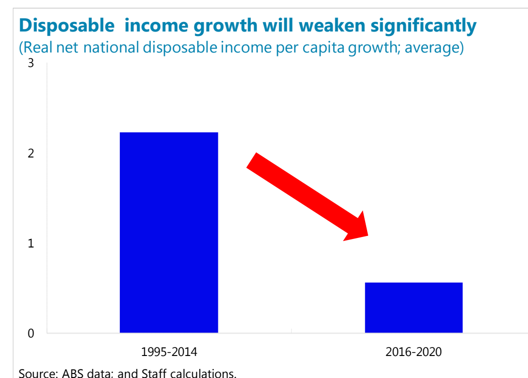


- ***Slower productivity growth partly reflects the long investment lags for mining***. Since the early 2000s, mining investment, the impact of drought on agriculture and utilities, and high profits in mining which led to the mining of marginal deposits, resulted in a slowdown in total factor productivity growth. Productivity in the mining sector is rising as exports come on stream. But this is likely insufficient to maintain per capita income growth—productivity growth in other sectors will need to rise (Box 6).

Box 6. Income Growth Likely to Slow

Australia's potential growth is likely to be lower than in the past. Based on a standard production function framework, potential growth is estimated to slow to 2.8 percent over 2016-17, further declining to 2.6 percent over 2018-2020, driven by moderate input and slowing TFP growth (see Selected Issues Paper "Sustaining Income Growth in Australia" for details). This is slower than the estimated historical average of around 3.2 percent over 1990-2014.

As a result, income growth will be weaker. Gross domestic income growth (adjusting for terms of trade movements) is projected to slow from an average of 3.5 percent over 1990-2014 to 2.8 percent in the medium term. Raising gross domestic income growth to its historical average would require TFP growth between 1½ - 1¾ percent on average, nearly 80 percent more than the baseline projection

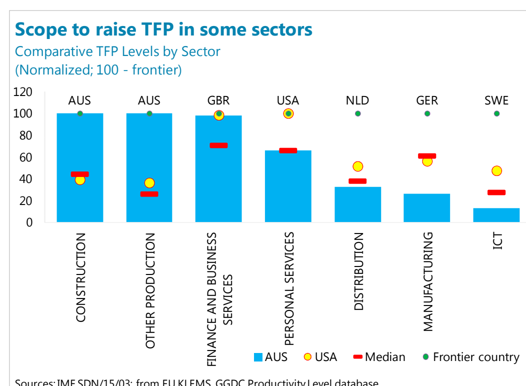


The distance from the efficiency frontier shows scope to improve efficiency and boost TFP. For example, bridging half the TFP gap between U.S. and Australian TFP levels across sectors over 10-15 years would imply potential growth in the 3-3¼ percent range. Recent IMF research also shows that improved cross-sector allocation of inputs in advanced economies could boost TFP levels on average by 7-9 percent assuming optimal adjustment over 10 years.

Staff Views

35. To sustain growth at the rates of the past, TFP growth needs to accelerate. It would need to reach about 1½ percent per year (almost double staff's baseline projections) to maintain

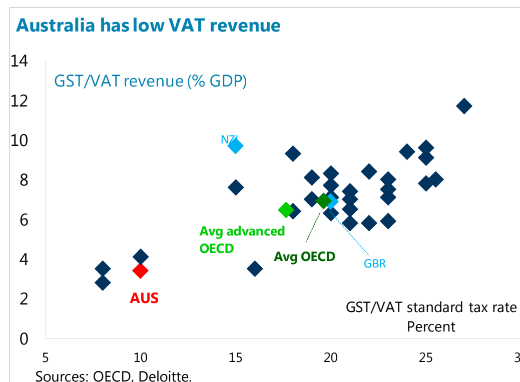
GDP and per capita income growth in line with historical trends over the medium term. This requires an ambitious reform agenda.



36. Low hanging fruit already harvested. Raising TFP will not be easy as Australia has already benefited from sizeable productivity improvements following the 1980-early 2000s reforms. While there are no clear game changers, the distribution sector, covering both transport and domestic trade, suggests most scope for catching up to the global TFP frontier. The Competition Policy Review recommended many reforms to strengthen competition and improve efficiency, including in human services and the retail sector. Improving infrastructure investment would relieve bottlenecks, as would reducing housing supply constraints (which critically require more responsive planning and zoning). The recent trade agreements should also help.

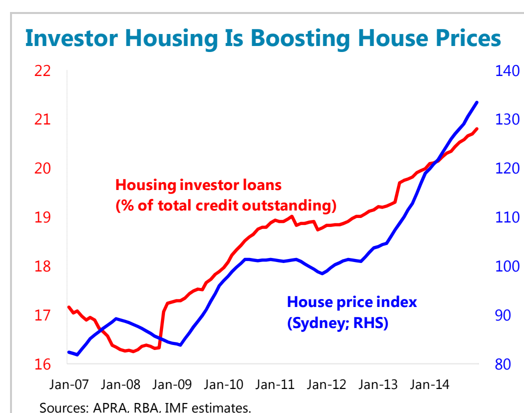
37. Though politically challenging, fiscal reforms can help raise potential growth substantially and generate revenue. A recent IMF study estimated the per capita growth impact of previous fiscal reform episodes could be around ¾ percentage points on average, though it is difficult to disentangle the effects of fiscal from other types of reform initiated at the same time. The Tax and Federation Reviews provide the opportunity to craft a package to boost labor supply and investment which should include the following interconnected elements:

- ***Shifting toward more efficient and simple taxes.*** Key goals would be to prevent a large share of individual taxpayers from facing higher tax rates through unchecked bracket creep (which would affect those on lower and middle incomes most); reduce the corporate tax rate to international levels; and eliminate stamp duties and minor taxes. This would be paid for by broadening the base of the goods and services tax (GST)—receipts from which are low by international standards—and possibly raising the rate, while at least fully compensating those on lower incomes through lower income taxes and higher transfers, as well as increased reliance on a broad-based real-estate tax and excises.



- ***Reducing incentives for potentially excessive financial investment in housing.*** As the Financial System Inquiry notes, the concessional treatment of capital gains tax in real estate and the exemption of owner-occupied housing for the calculation of the Age Pension incentivizes overinvestment in housing and negative gearing, significantly pushing up demand and real estate prices. This is reinforced by the deductibility of interest payments and maintenance expenses for rental properties from taxable income from other sources (though rental income is taxed). Reducing the concessional treatment of capital gains and the deductibility of housing

investment losses from other taxable income (which facilitates negative gearing), and capping the exemption of owner-occupied housing for the calculation of the Age Pension would likely improve housing affordability and financial stability.



- ***Ensuring fairness.*** Australia's system of superannuation savings incentivizes retirement saving where contributions and earnings are taxed, but at concessional rates, and pension payouts are tax-free. The system is complex and disproportionately benefits higher-income earners. Aligning tax rates on contributions closer to personal income tax rates would reduce concessions for higher earners and enhance revenue and could improve housing affordability and financial stability. Adjusting pension policies in particular would need careful calibration and phasing.

38. Adjusting federal-fiscal relations. Federal-state fiscal relations will likely need to be adjusted to facilitate the tax reform. There are many options—one could be for states to receive higher GST revenue and autonomy in return for greater spending responsibilities. This could also help increase spending efficiency. More generally, greater coordination of the fiscal policy stance between the Commonwealth and States could facilitate macroeconomic management.

Authorities' Views

39. Achieving a return to strong nominal income growth would require continued focus on productivity enhancing reforms. The Treasury projected potential growth at close to 3¼ percent a year, supported by strong population growth, a rising participation rate, and an assumption that labor productivity growth in line with historical experience. Total factor productivity growth was likely to pick up now that the export phase of the mining boom had been reached. However ongoing effort to deliver productivity enhancing reforms would be required to achieve the growth rates in national income achieved in the past. The comprehensive reforms of the 1980s-early 2000s made a major contribution to Australia's past productivity performance and, the productivity gap in some sectors relative to the global frontier offered scope for catch up. Over the longer term, external demand for goods and services from a rising middle class in Asia would help boost potential growth. Recently concluded free trade agreements with China, Japan and Korea would help as well. Unlike other economies, where multifactor productivity growth was inhibited following financial system dislocation, this was not the case for Australia. Nonetheless, declines in global productivity growth would have implications for Australia, further highlighting the importance of domestic reform efforts to sustain growth in living standards.

40. The authorities thought that competition, tax, workplace relations and federal relations reforms could play an important role in raising economic efficiency. There were review processes currently underway examining these issues. Any changes to the tax and

superannuation system would also need to have regard to Australia's already highly-progressive tax and welfare arrangements and ensure that they take account of investment decisions people have already made in good faith on the basis of existing policy.

C. Building Resilience

"[Banks'] capital levels should be raised to ensure they are unquestionably strong. Evidence from banks, regulators and others suggests that Australian banks are not in the top quartile of large internationally active banks. Regulatory changes in other countries may further weaken the relative position of Australian banks."

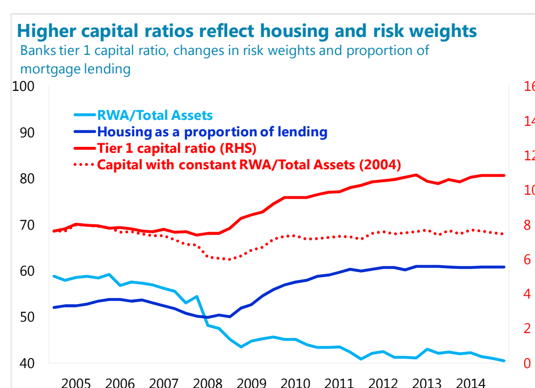
Financial System Inquiry final report, November 2014

Context

41. **Australia's financial system weathered the global financial crisis well, aided by flexible monetary policy, a strong fiscal position, and prudent supervision.** The major banks are highly rated and profitable compared with peers. Recent performance has been strong with a low level of non-performing loans, a decline in funding costs and reliance on external borrowing, and higher capital ratios.

42. **But the financial system faces long-standing structural vulnerabilities.** The four major banks are systemic with broadly similar business models. As a capital importer, exposed to terms of trade shocks and with a still relatively high proportion of offshore wholesale funding (though significantly reduced since the GFC and at extended maturities), the economy is vulnerable to changes in international investor sentiment. Residential mortgages account for a large proportion of banks' assets and household leverage is high.

43. **The rise in capital ratios of the major four banks may not be a reflection of lower financial stability risks**. Since 2008, as in many other countries, much the improvement in capital ratios for large banks (with internal risk based ratings) has been driven by a shift in banks' loan books toward housing and a lowering of mortgage risks weights. This has led to a wide divergence between the risk weights attached to mortgages between the big and smaller banks. It may also encourage lending for housing rather than to business.



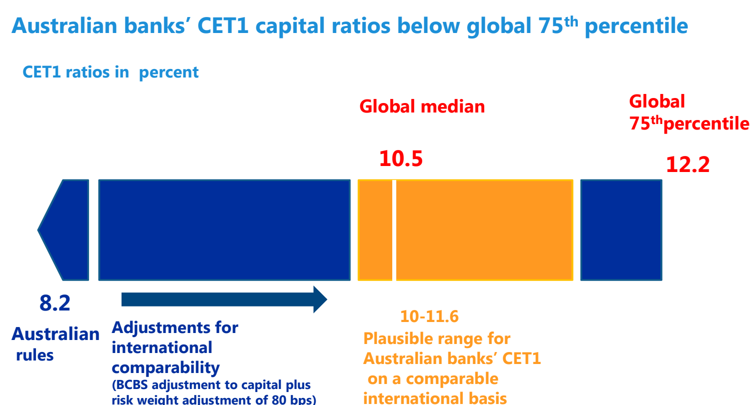
44. **The Financial System Inquiry (FSI) concluded that more should be done to strengthen the system's resilience.** The Inquiry (Box 7) argued that Australia needed to be better placed than other economies given its structural vulnerabilities, with a strong public balance sheet remaining a critical backstop, and the banks should have unquestionably strong capital levels and sufficient loss absorbing capacity to mitigate risks.

Box 7. The Financial System Inquiry

The Inquiry published its findings in December 2014. Key recommendations included:

- Set capital ratios such that Australian banks are "unquestionably strong". The Inquiry argued that this would be equivalent to aiming for bank capital ratios that are in the top quartile internationally. While acknowledging that comparisons are difficult, given differences in both capital measurement and risk weighted assets, the Inquiry used a schematic to demonstrate a range which estimates where Australian banks current CET1 ratios lie on an internationally comparable basis (10-11.6 percent) and where they would need to be to be in the top quartile internationally (12.2 percent and upwards) .

Australian banks' CET1 capital ratios below global 75th percentile



Sources: Financial System Inquiry, APRA, Australian Bankers' Association (ABA) and Basel Committee on Banking Supervision
Based on December 2013 global data

- Raise average mortgage risk weights for banks using internal ratings based models. In July, APRA announced an increase in average mortgage risk weights for these banks from around 16 to at least 25 percent by July 2016. This is equivalent to an 80 basis point change in the CET1 ratio. The increase is an interim step pending the finalization of the Basel Committee's review. The change narrows the difference in capital adequacy requirements between banks using IRB and standardized approaches.
- Report transparently on capital ratios against Basel minimum capital framework.
- Introduce a leverage ratio that acts as a backstop to banks' risk-weighted capital positions.

APRA's subsequent study confirmed that, on an internationally comparable basis, Australian banks' CET1 ratios would be around 300 basis points higher on average—this would place them above the median of international peers, but not in the top quartile as proposed by the Inquiry. Furthermore, to achieve a position in the top quartile for a range of capital adequacy measures, Australian banks would require significantly higher capital ratios. To be comfortably positioned in the top quartile, APRA noted that the major banks would need to increase their capital ratios by at least 200 bps relative to the June 2014 position.

Staff Views

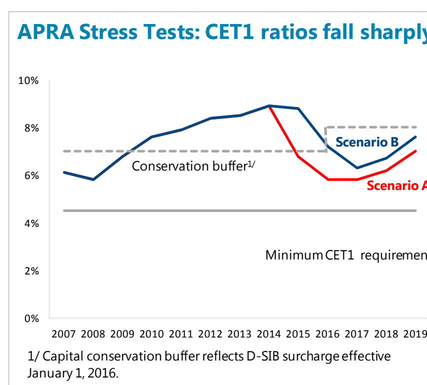
45. **To strengthen financial system resilience, building "unquestionably strong" bank buffers is a welcome goal.** The particular vulnerabilities—housing, concentration and offshore funding—can transmit shocks from the financial system to the wider economy with spillback effects on the financial system. The housing and commercial property markets are prone to cycles and a large house price decline would hit the real economy hard. APRA's stress tests (Box 8) note that

while bank capital remains above the 4½ percent solvency ratio in an adverse scenario *"it is unlikely that Australia would have the fully functioning banking system it would like in such an environment."* Avoiding this scenario with a high degree of certainty would likely require capital ratios substantially higher than 9 percent currently.

Box 8. APRA Stress Tests

In November 2014, APRA conducted a stress test of the Australian banking system, focused on housing. APRA considered two severe tail macroeconomic stress scenarios, developed in collaboration with the Reserve Bank of Australia (RBA) and the Reserve Bank of New Zealand (RBNZ).

APRA Stress Tests: CET1 ratios fall sharply



1/ Capital conservation buffer reflects D-SIB surcharge effective January 1, 2016.

- **Scenario A: House price bust**. A housing market decline, prompted by a sharp slowdown in China. In this scenario, Australian GDP growth declines to -4 percent, unemployment increases to over 13 percent and house prices fall by a cumulative 40 percent.
- **Scenario B: Higher interest rates.** In the face of strong growth and emerging inflation, the RBA raises the cash rate significantly. Global growth weakens and a sharp drop in commodity prices leads to increased uncertainty and volatility in financial markets. This leads to higher unemployment and higher borrowing in Australia and a significant fall in house prices.

Results. In each scenario banks face higher funding costs and credit losses, with a significant adverse impact on profitability and capital ratios. Losses on residential mortgages account for around one-third of total credit losses. The aggregate Common Equity Tier 1 (CET1) ratio falls by around 3 percentage points from 8.9 percent (though all banks remain above the minimum CET1 capital requirement of 4.5 per cent). Losses are greater than the capital held for housing for the internal ratings based risk weight (IRB) banks and almost all banks would use capital conservation buffers and face constraints on dividend and bonus payouts. Even though CET1 requirements are not breached, the head of APRA concluded that *"it is unlikely that Australia would have the fully-functioning banking system it would like in such an environment. Banks with substantially reduced capital ratios would be severely constrained in their ability to raise funding (both in availability and pricing), and hence in their ability to advance credit. In short, we would have survived the stress, but the aftermath might not be entirely comfortable"*

46. Gradually building higher capital and loss-absorbing capacity would reduce the risks from a highly concentrated banking system. Even after taking into account the strengths of Australia's prudential system (and conservative measurement of capital), banks appear to have capital above the median internationally but not in the top quartile of banks. Other economies facing similar risks are taking a variety of different measures to boost capital and tighten risk weights (Hong Kong, Sweden and Switzerland)—the global trend is towards higher capital. Options to increase capital include:

- ***Higher risk weights.*** Risk weights on mortgages are at historically low levels. Other jurisdictions (such as Sweden) have introduced risk weight floors for residential mortgages. APRA's move to

raise average risk weights for IRB banks is therefore welcome. Australia's relatively conservative loss given default of 20 percent should be retained.

Other jurisdictions have higher capital and risk weights
(In percent)

	G/D-SIB Surcharge	Counter Cyclical Capital Buffer	Minimum Mortgage Risk Weight
Australia	**1**	**TBD 2016**	
Canada	1	Under discussion	
EU	2	National authorities	
Hong Kong	1 to 3.5	0.625	15
Netherlands	1 to 3		
Norway	3-5 [1/]	1	
Singapore	2		
Sweden	5	1	25
Switzerland	3	2	
UK	1-2.5	0	12
US	1-4.5	0	

Note: Definition of variables differs across jurisdictions which makes comparison difficult.
1/ Includes systemic buffer of 3 percent.

- ***Pillar 2.*** APRA can require adjustments to capital above the minimum level after reviewing an institution's risk profile, management and mitigation strategies to address systemic and concentration risks. Such Pillar 2 adjustments could be used to raise capital ratios for the major banks (and could be reduced in an adverse scenario).

- ***Counter-cyclical capital buffer.*** Use of the countercyclical buffer could help both slow excessive risk buildup in an upswing and cushion the impact on the real economy in the downswing. From 2016 APRA could set a countercyclical buffer at a rate of 0-2.5 percent (others such as Norway and Switzerland have already imposed a positive rate). Application of the buffer could be warranted in the current conditions of a mature financial cycle, though the decision to activate it would need to go beyond the strict credit-gap approach and should include scope for discretion and judgment.

- ***Higher D-SIB surcharge.*** This would provide higher loss absorbency. The minimum D-SIB surcharge of 1 percent seems on the low side, especially as a number of other countries with similar banking sector characteristics (Norway, Sweden) have applied much higher surcharges. However, a drawback of using the D-SIB surcharge is that since the minimum requirement rises, the capital conservation buffers would be quickly reached in an adverse scenario and banks may restrain lending before they hit these buffers, as they may be concerned about the market reaction if they use them.

- ***A higher leverage ratio*** should complement higher capital requirements. It would serve as backstop, consistent with the substantially higher capital ratio thresholds and it would be useful in containing both ratings drift and the potential for lending to shift to lower-risk weighted housing loans. A leverage ratio at the upper end of the 3-5 percent suggested by the FSI would seem be appropriate.

47. The benefits of raising capital gradually over time are likely to outweigh the costs which are low. The major Australian banks are exceptionally profitable, enjoy a funding cost advantage derived partly from implicit government support, earn larger net interest margins than smaller domestic banks and international peers, have high price-to-book ratios, pay out high dividends, and are not balance-sheet constrained in providing credit. Lowering dividend payout ratios to international norms would comfortably allow building substantially stronger buffers over time at little or no cost to the economy, especially if done at a gradual pace.

48. Addressing emerging housing market risks. While investor lending is still rising strongly some months after APRA flagged its program of enhanced attention, staff expects APRA's measures to begin to take effect and be reflected in slower credit growth in the second half of 2015. However, should investor lending growth or house price inflation fail to slow appreciably, the authorities would likely need to intensify their targeted approach with options including:

- ***Higher risk weights*** for investor/interest-only lending, perhaps targeted by geography (e.g., just Sydney, similar to those recently introduced in New Zealand), could also be considered.

- ***Capital.*** While APRA elevated its intensity of supervision with the measures adopted in December 2014, additional Pillar 2 capital requirements should be considered for large players that are still expanding their investor lending portfolios rapidly.

- ***Interest only loans.*** *A* maximum interest only period could be considered to reduce the repayment risk from these types of loans.

- ***Tax system.*** In the context of a broader reform of the tax system, incentives that give rise to the high degree of household and bank exposure to housing should be reduced.

Authorities' Views

49. The authorities agreed that higher capital would be beneficial to increase the resilience of the financial system. They supported the findings of the FSI to make banks "unquestionably strong" and APRA was taking this forward. Any changes would need to be line with evolving international standards and commensurate with the risks. Regulatory changes would need to be gradual and the stability of policy settings was also an important goal to minimize unnecessary costs. Capital raising actions needed to take into account that APRA already imposes more conservative requirements compared to most other countries and that they also adopt an intensive supervisory approach. Nonetheless, recent stress tests and the FSI suggested that more needed to be done to strengthen banks' capital ratios to ensure they were unquestionably strong and so that they could withstand severe economic stress and maintain their supply of new credit to the economy. APRA is currently considering what action to take, they are monitoring the calibration of the D-SIB surcharge in the context of industry and international developments.

50. The key areas of risk from investor lending, particularly in Sydney, were being addressed and contained. The authorities' emphasized that the acceleration in investor lending had led to a gradual and targeted response, and that the effects of this were beginning to show with banks reducing or eliminating discounts for some borrowers. Banks have also tightened mortgage serviceability tests in response to increased supervisory focus on this aspect of their lending practices. As a result, investor credit growth was expected to slow in the second half of 2015, but this also did not rule out Pillar 2 actions if individual banks failed to rein in investor lending. They also pointed to a wide range of legal powers that enable direct action where there are threats to financial stability. APRA generally prefers to adopt a suasion approach when it identifies weaknesses in lending standards, with communication with the management and boards central to the

approach. Coordination is conducted through the Council of Financial Regulators which includes the Treasury and ASIC as well as APRA and the RBA. The authorities highlighted this framework's success in helping cool the housing market following the large run up in house prices in the early 2000s.

STAFF APPRAISAL

51. Outlook. Australia has outperformed its peers for the past two decades driven by a boom in the global demand for resources and supported by sound policies and frameworks. But the waning resource investment boom and sharp fall in the terms of trade have brought this outperformance to an end. A cyclical recovery is likely in the near term as net exports improve and accommodative monetary policy supports investment. But potential growth is likely to fall over the medium term, reflecting weak productivity growth.

52. Risks. While Australia's vulnerabilities are low, the risks are skewed downwards. Domestic demand could pick up more slowly than expected, a house price correction could knock confidence and demand, and external risks—a sharper China slowdown or more volatile global financial conditions—could trigger or amplify these risks. But on the upside, domestic demand could respond more quickly to recent monetary policy stimulus, and the exchange rate could depreciate further, stimulating the tradable sector. There is also policy space to cushion downside risks.

53. Policy agenda. The weaker outlook can be avoided. Australia has strong institutions, a flexible economy, and is well placed to seize opportunities created by Asia's rapid growth. Reinvigorating the outlook requires policymakers being on the front foot to enable Australia to make the most of its considerable potential.

54. Sustaining demand through the resource boom transition. The output gap and large structural transition of the economy call for supportive aggregate demand policies.

- ***Monetary policy***. Given the sizeable output gap and subdued inflation, monetary policy should remain accommodative and stand ready to ease further should the recovery fall short of expectations and provided financial stability risks remain contained.

- ***Fiscal policy.*** A small surplus should remain a longer-term anchor of fiscal policy. But staff assesses the planned consolidation as somewhat more frontloaded than desirable. Boosting public investment would support demand, take the pressure off monetary policy, and insure against downside growth risks. This would need careful coordination between different levels of government and broader federal support.

55. Lifting productivity to sustain strong income growth. Maintaining income growth at past rates requires higher productivity growth. This could be achieved with an ambitious reform agenda.

- ***Many targets, no silver bullets.*** There are few low-hanging fruit, but a range of reforms have been identified. The Competition Policy Review recommended reforms to strengthen competition and improve efficiency in the human services and retail sector. Addressing

infrastructure needs would relieve bottlenecks and housing supply constraints. The recent trade agreements should also help.

- ***Though politically challenging, fiscal reforms can help.*** The tax system should shift towards more efficient taxes, while ensuring fairness, including by preventing personal income tax bracket creep and reducing the corporate tax rate, paid for by higher GST revenue.

56. Building resilience. Implementing the recommendations of the Financial System Inquiry should be a priority and prudential policies should continue to aim at addressing housing market risks.

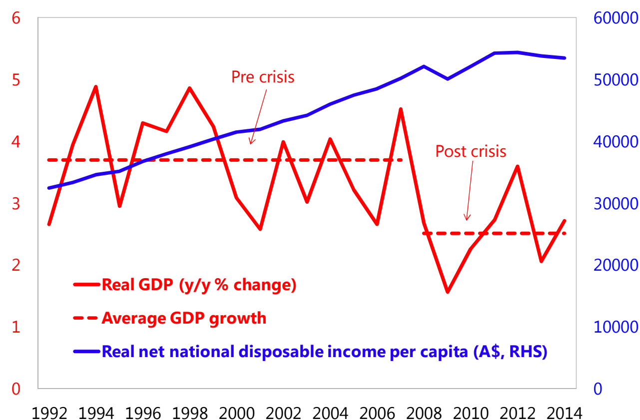
- ***Raising bank capital.*** While sound and profitable, Australian banks do not appear to have particularly high capital ratios, and they would require significantly higher capital in a severe adverse scenario to ensure a fully-functioning system. Raising mortgage risk weights will help, but capital ratios need to be increased substantially to ensure banks are "unquestionably" strong. The benefits of raising capital over time are likely to outweigh the costs, which are low.

- ***Housing market risks.*** The regulator has taken appropriately targeted action to address areas of risk in the housing market. But if investor lending and house price inflation do not slow appreciably in the second half of the year, these policies may need to be intensified.

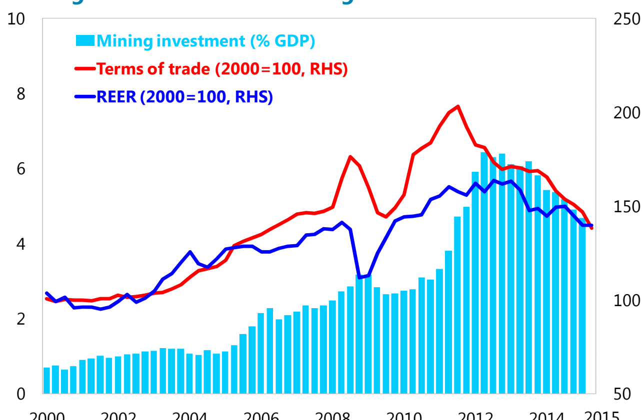
57. It is recommended that the next article IV consultation be held on the standard 12-month cycle.

Figure 1. Following Two Decades of Strong Performance, Growth Has Slowed

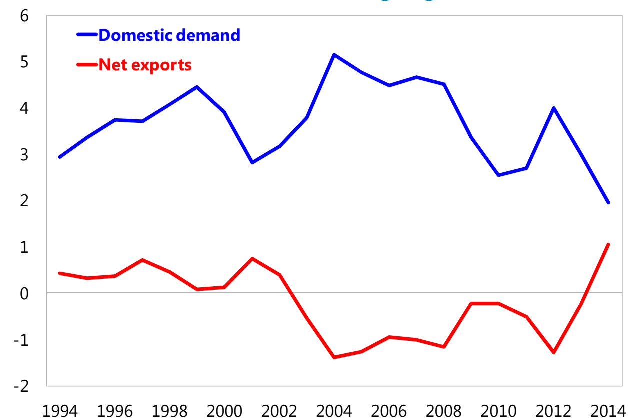
Growth has weakened and disposable income per capita is stalling...



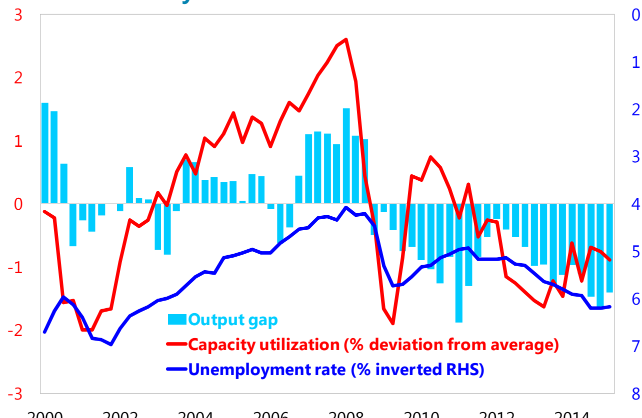
...as mining investment and the terms of trade fall back



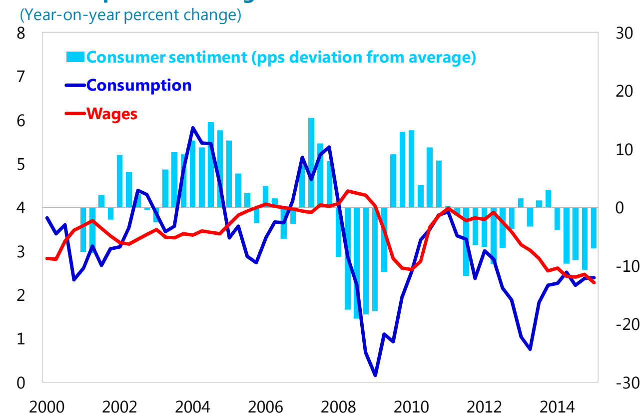
The mining export phase of the boom is coming through, but other sectors have been slow to pick up



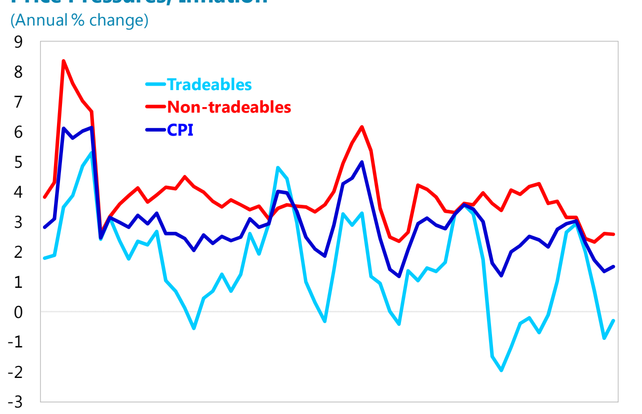
There is sizeable slack in the economy with unemployment at its highest for a decade...



... wage growth and consumption are subdued...



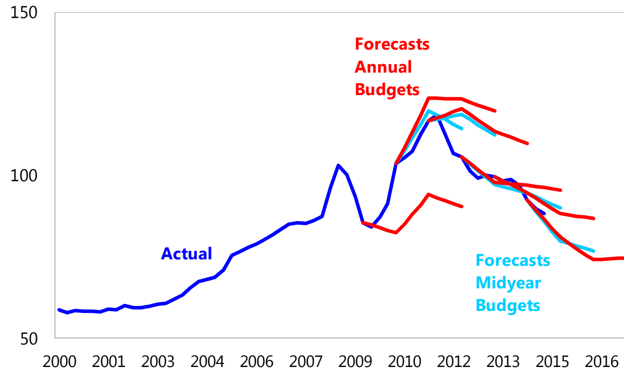
...and inflation is at the lower end of the target—non tradables inflation is historically low



Sources: Haver Analytics; Econdata; ABS; and IMF staff calculations.

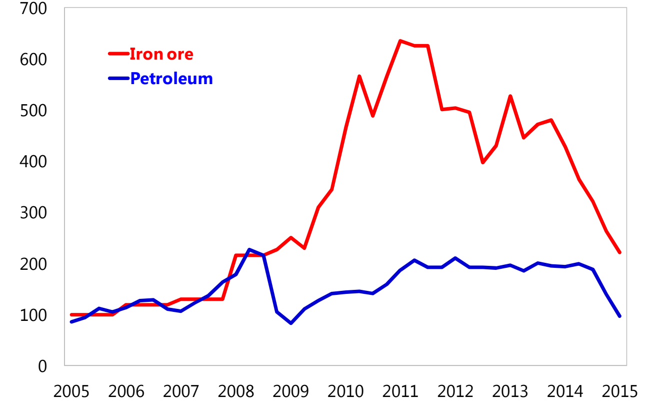
Figure 2. Current Account Improving After End Of Mining Investment Boom

The terms of trade has fallen off more sharply than expected

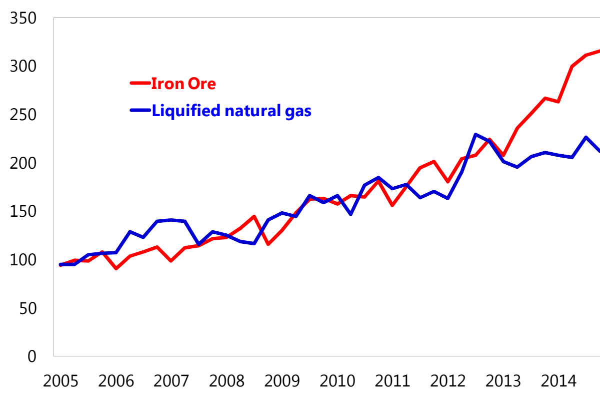


Note: Forecasts are based on Budgets and MYEFOs since 2010-11.

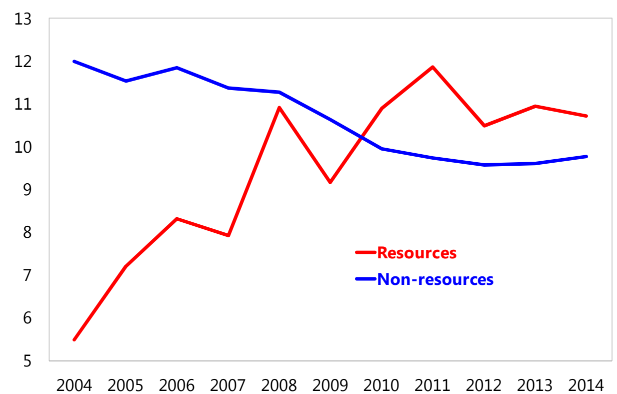
Iron ore prices have fallen by over a third in the past year



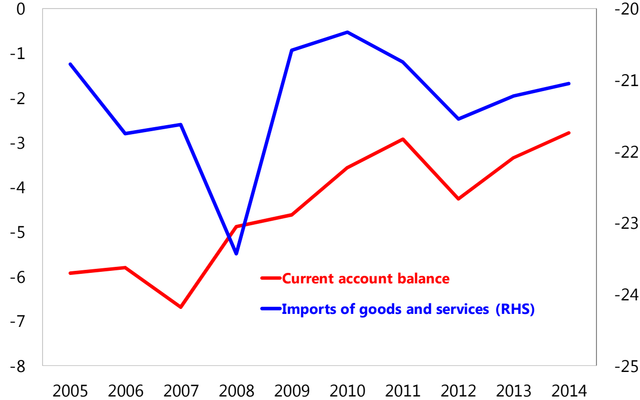
But export volumes continue to ramp up



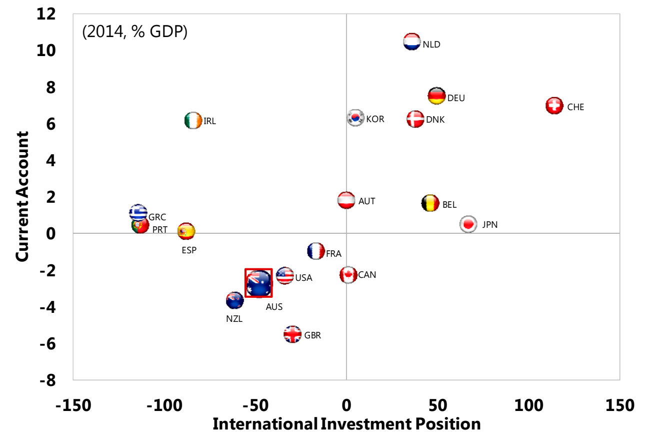
Keeping the value of resource exports broadly constant



Helping to reduce the trade and current account deficits as imports tail off



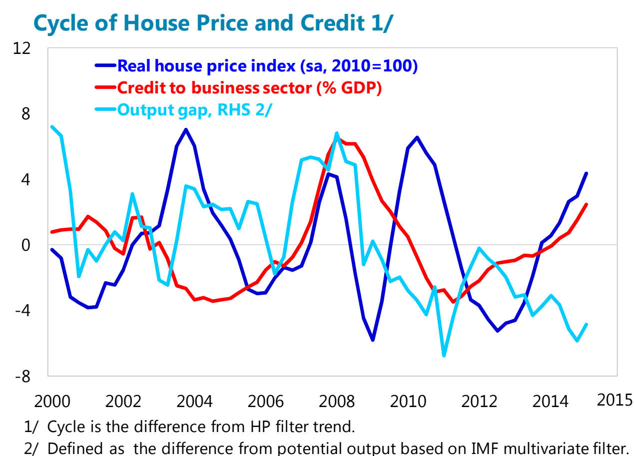
But Australia's net investment liability position remains high compared to peers



Sources: Haver Analytics; IMF, *World Economic Outlook*; ABS; RBA; and IMF staff calculations.

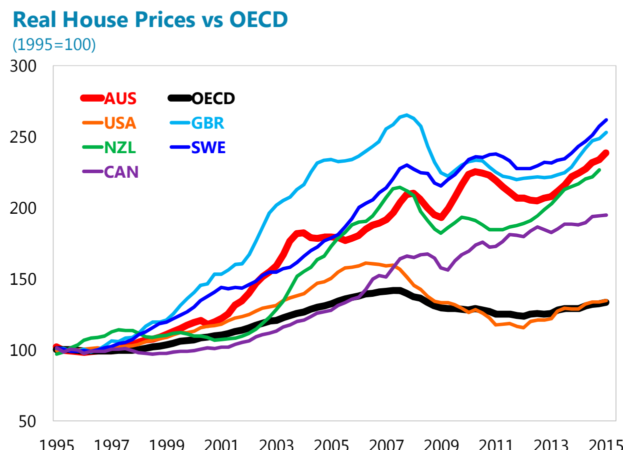
Figure 3. Financial Cycle Maybe Peaking

Housing near the peak of a cycle…

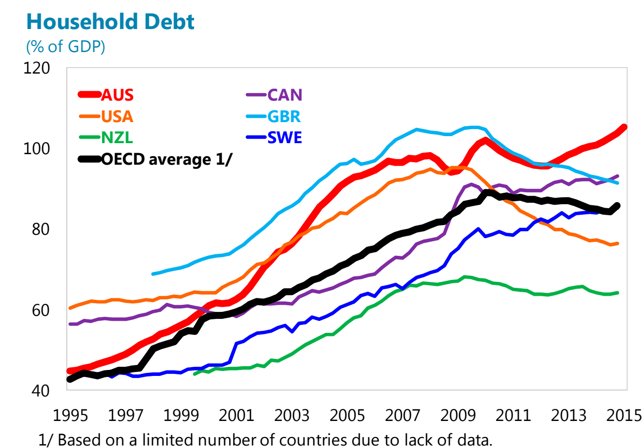


1/ Cycle is the difference from HP filter trend.
2/ Defined as the difference from potential output based on IMF multivariate filter.

and house prices are high compared to average but similar to other buoyant markets…

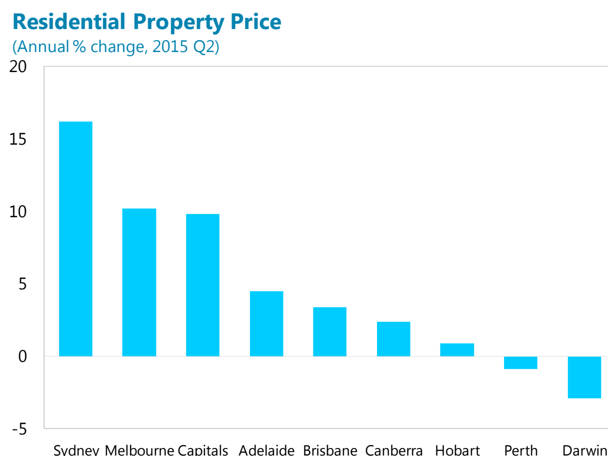


…and household debt is high as a percent of GDP.

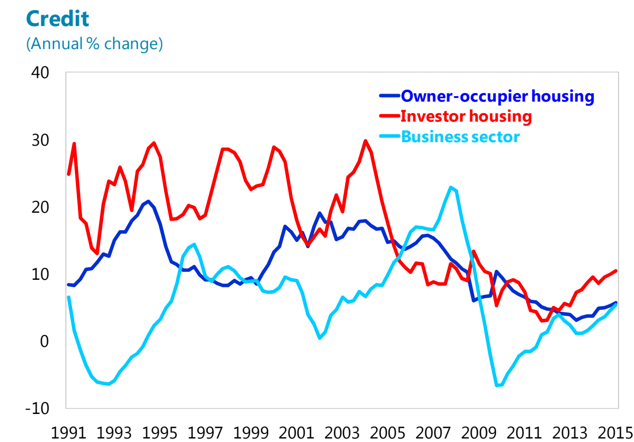


1/ Based on a limited number of countries due to lack of data.

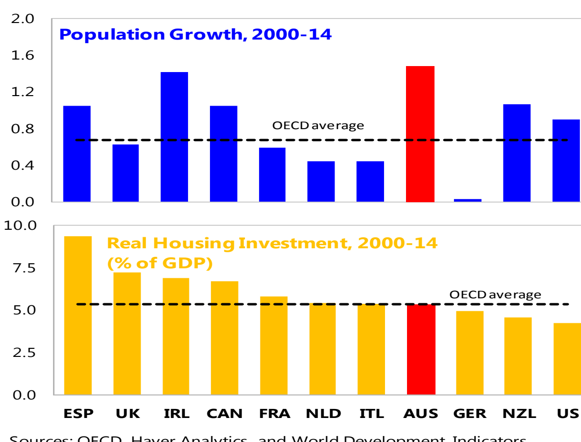
House price inflation varies…boom concentrated in Sydney.



No general credit boom – concentrated in investor housing…



Housing investment is relatively low given population growth.

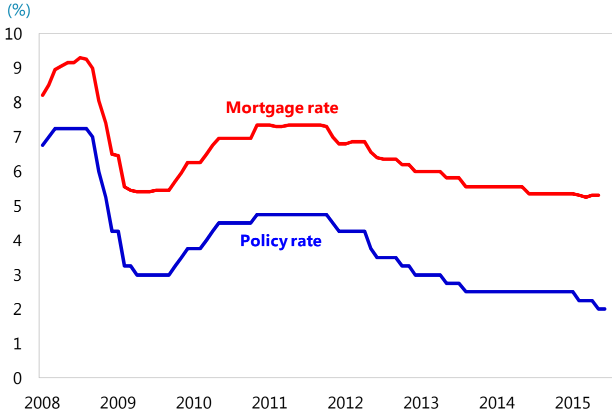


Sources: OECD, Haver Analytics, and World Development Indicators.

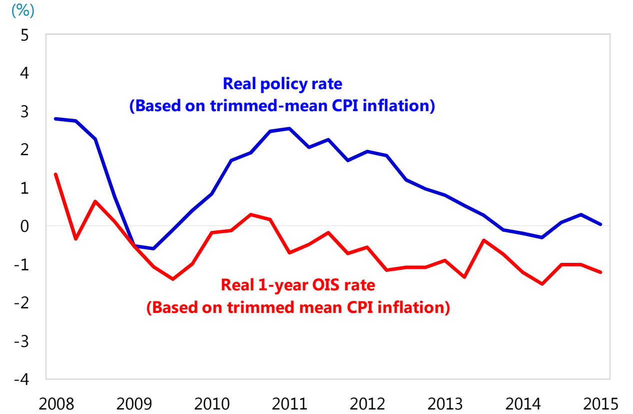
Sources: OECD; Reserve Bank of Australia; Australian Prudential Regulation Authority; Reserve Bank of New Zealand; BIS; Haver Analytics; and IMF staff calculations.

Figure 4. Monetary Policy Faces a Dilemma

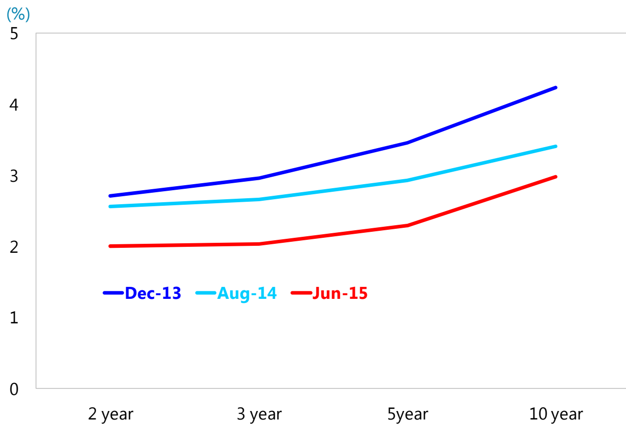
Monetary policy has been easing for some time…



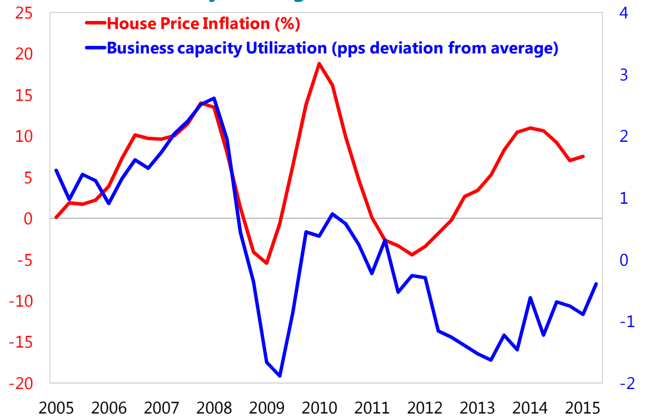
…and real interest rates are around zero.



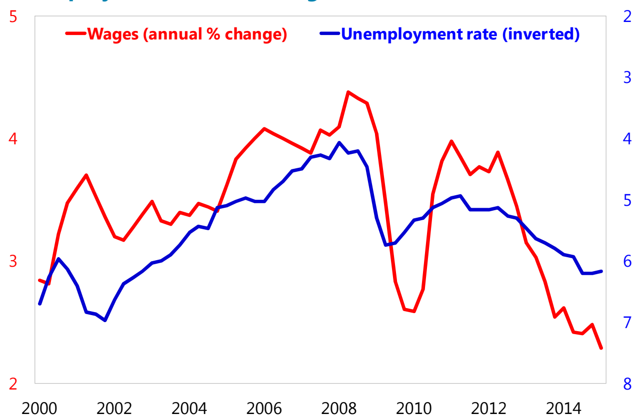
And, as elsewhere the yield curve is lower—which should support investment



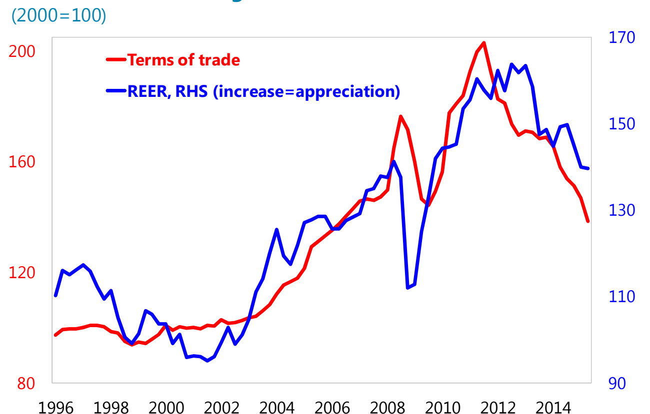
Yet while interest sensitive asset prices, especialy housing, have reponded, activity remains weak.



Labor market conditions are soft…



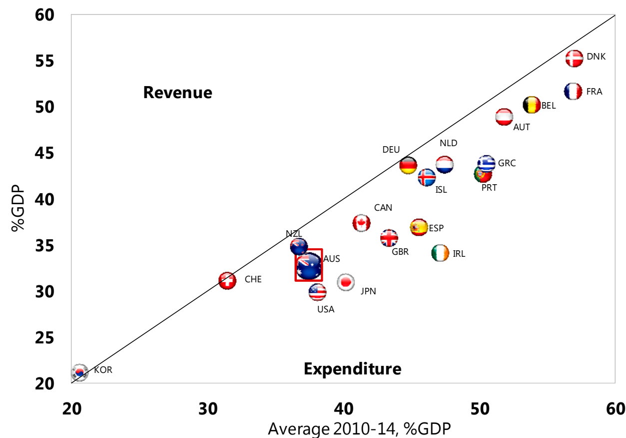
…and the downturn in the terms of trade looks not to have been fully reflected in the exchange rate level.



Sources: RBA; Haver Analytics; and IMF staff estimates.

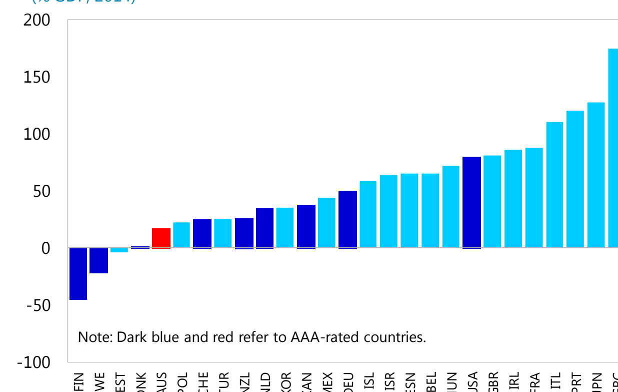
Figure 5. Strong but Deteriorating Public Finances

Australia has a relatively small government…

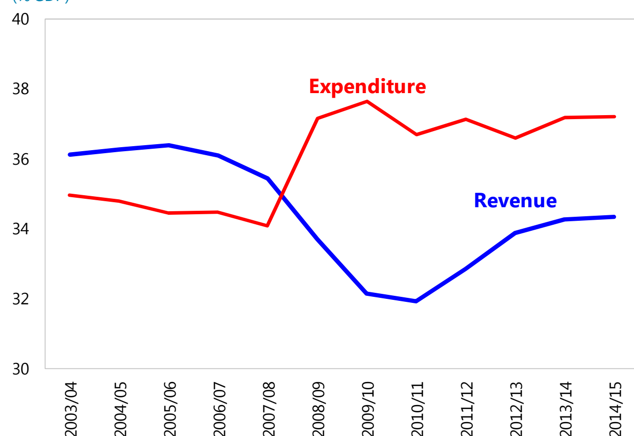


Source: IMF, *World Economic Outlook*.

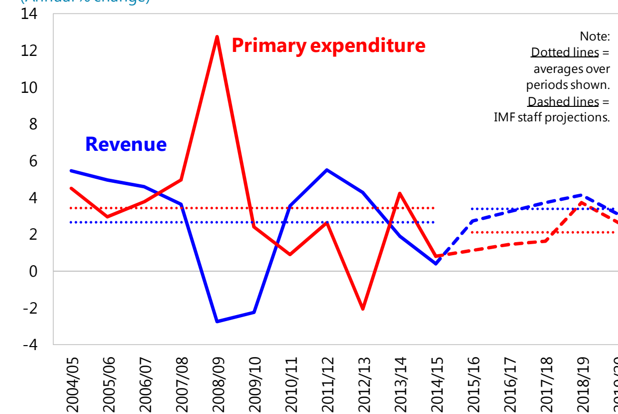
…and a low level of public debt.



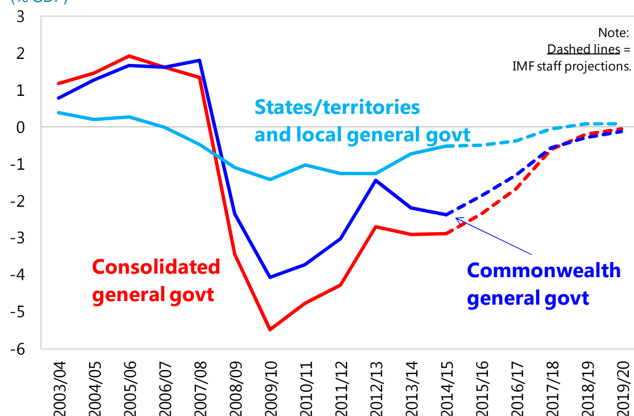
But the deficit has widened, partly driven by worsening terms of trade…



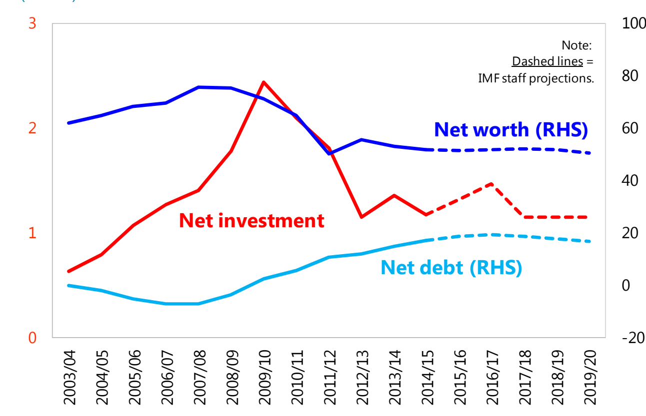
…and the government is aiming at consolidation, but this will require substantially lower real expenditure growth.



The states are also consolidating…



…and public investment stays low.

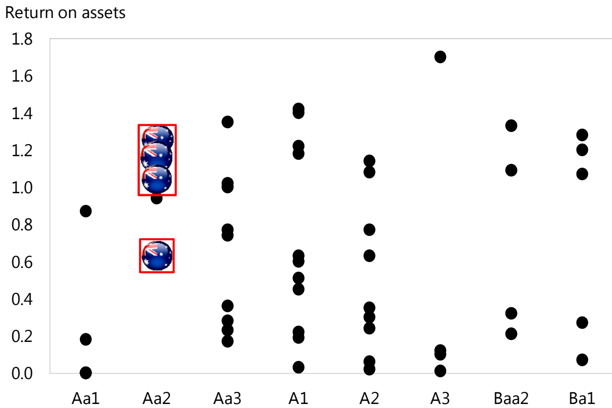


Sources: Commonwealth and State/Territory Treasuries; 2014-15 Budget; IMF, *World Economic Outlook*; and IMF staff estimates and projections.

Figure 6. Banking System Remains Strong

Australian major banks are highly rated…

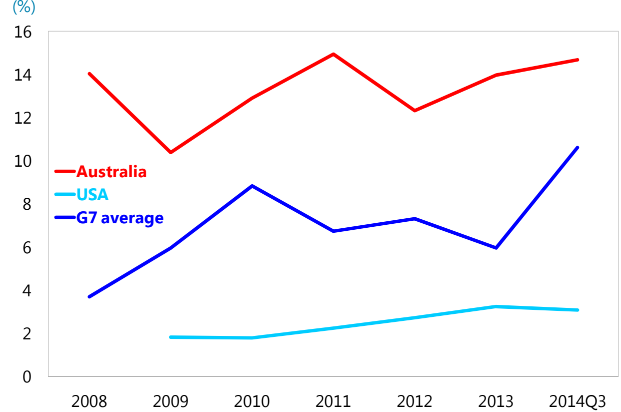
Bank Ratings



and profitable.

Return on Equity

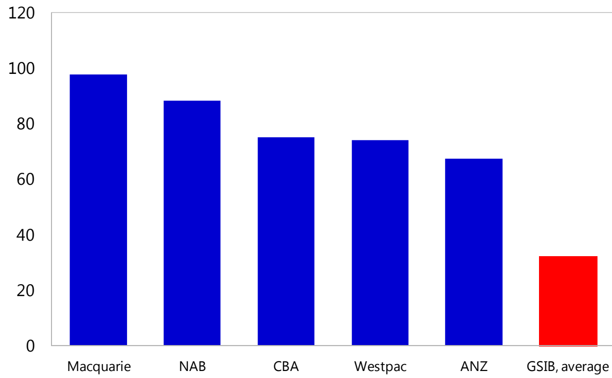
(%)



With high pay out ratios…

Australian Banks and GSIBs: Dividend Payout Ratio, 2014

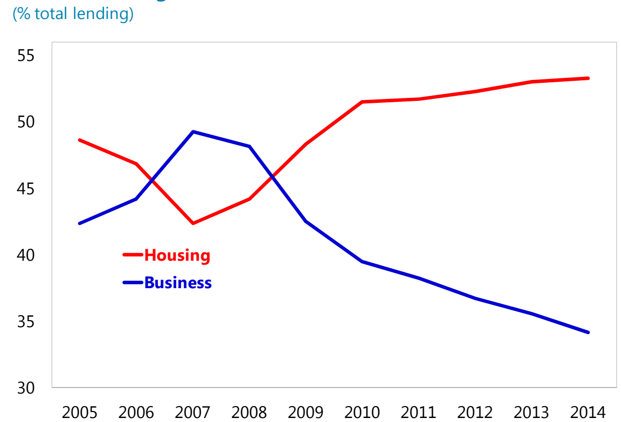
(% net income)



…but there are vulnerabilities— lending is concentrated in housing.

Banks' Lending Structure

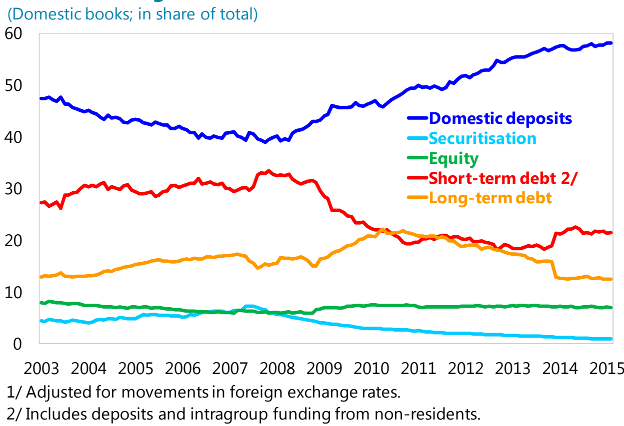
(% total lending)



…though less than at the time of the GFC they have a large proportion of offshore wholesale funding…

Banks' Funding 1/

(Domestic books; in share of total)

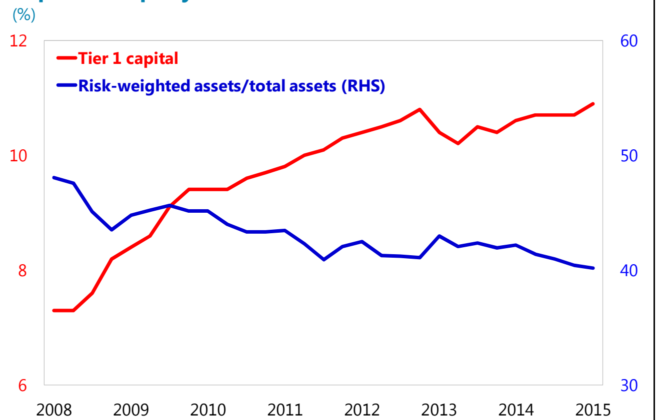


1/ Adjusted for movements in foreign exchange rates.
2/ Includes deposits and intragroup funding from non-residents.

…while capital ratios have risen it has been driven by declining risk weights

Capital Adequacy Ratios

(%)



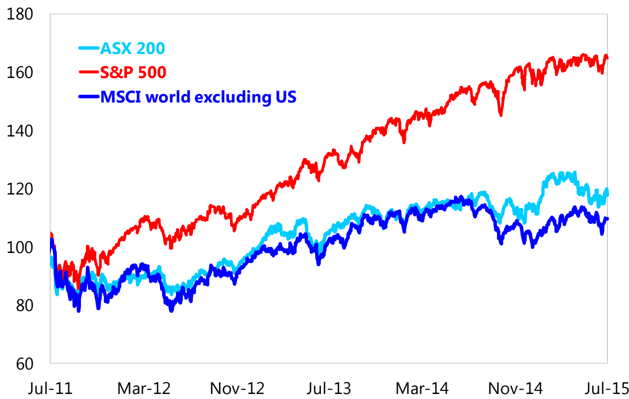
Sources: Bankscope; RBA; APRA; Financial Soundness Indicators; and IMF staff calculations.

Figure 7. Financial Market Indicators: Equity Market Propped up By Financial Sector

Equity prices have been boosted by low interest rates

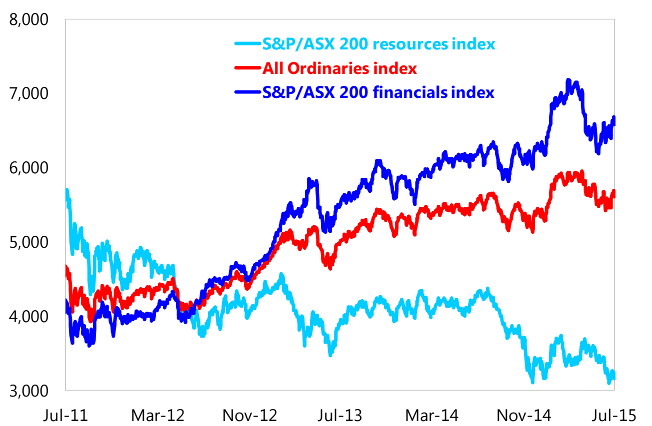
Stock Market Indices

(Jan 2011=100)



But the resources sector has fallen off, and financials have eased back.

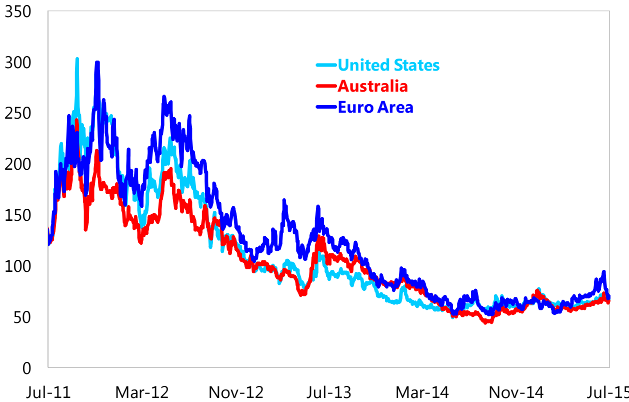
Stock Market Indices



Bank spreads are low.

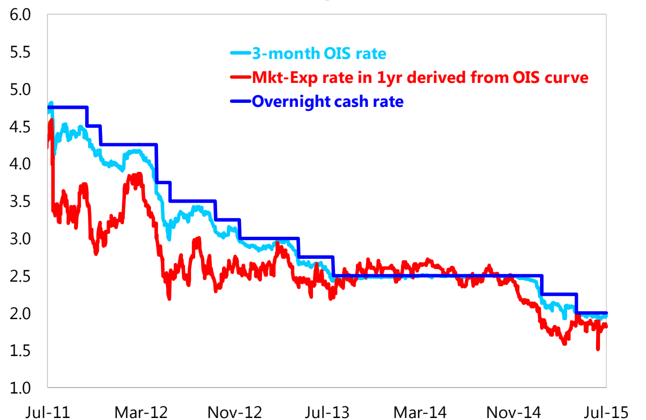
Credit Default Swap (CDS) Spreads

(Five-year; average of four largest banks)



Markets expect rates to remain on hold.

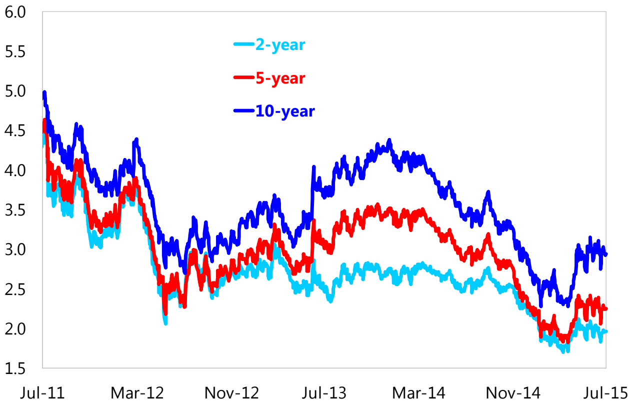
OIS, Cash Rate, and Market Expectations



And similar to other economies, yields and spreads have narrowed since 2013.

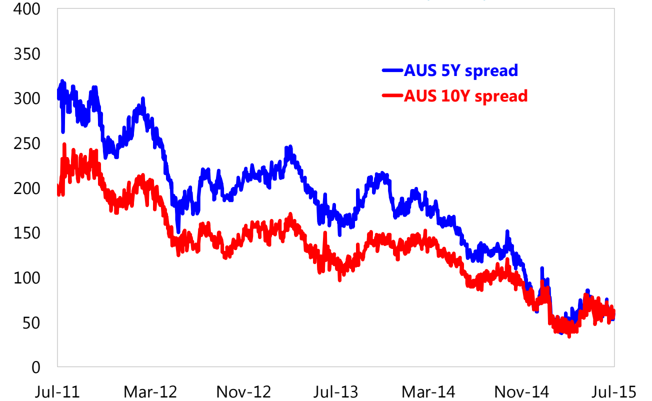
Australia Commonwealth Debt Yields

(%)



Australia Sovereign Spreads

(Australia Commonwealth bond spread over U.S. Treasury bond yields)

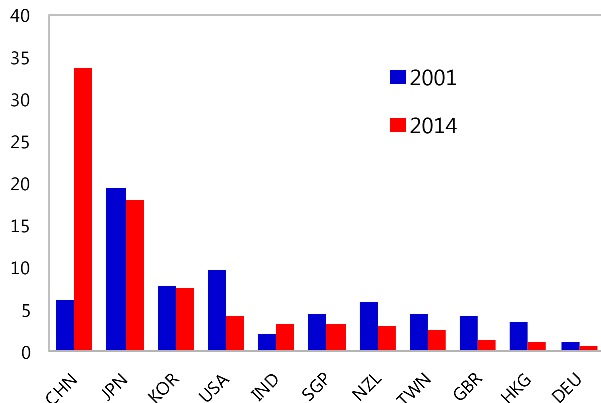


Sources: Bloomberg; RBA; and IMF staff calculations.

Figure 8. Interconnections and Spillovers

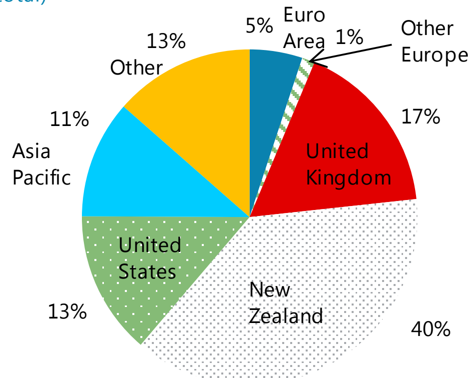
Trade links are mainly with China with exposure to commodity price shocks…

Exports by Destination
(% total)



…while financial links are with New Zealand, US, and UK.

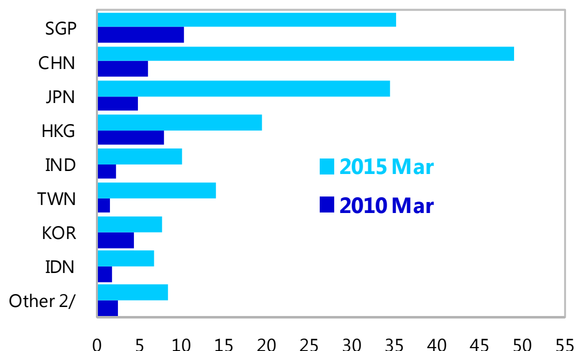
Foreign Claims of Australian Banks, 2014Q3 1/
(% total)



1/ Measured on a consolidated, ultimate risk basis.

Financial links with Asia are increasing from a low base.

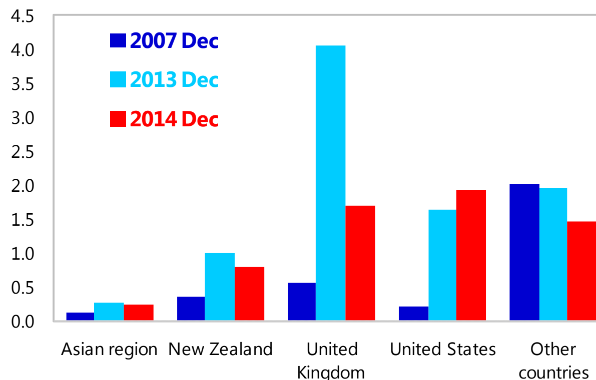
Australian-owned Banks' Claims on Asia 1/
(In billions of Australian dollars)



1/ Measured on a consolidated, ultimate risk basis.
2/ Includes Cambodia, Lao PDR, Malaysia, Philippines, Thailand and Vietnam.

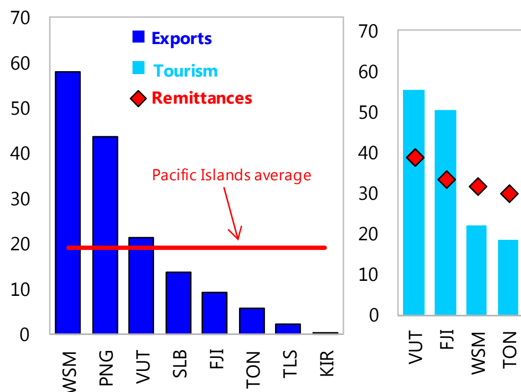
Non-performing assets of banks overseas operations are low.

Non-performing Assets of Australian-owned Banks' Overseas Operations
(% loans by region)

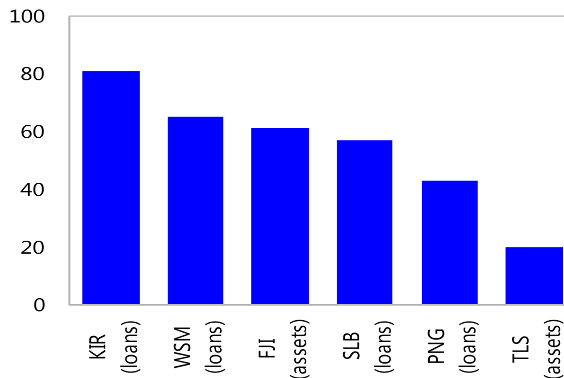


Links to the Pacific Islands are through trade, remittances and financial channels.

Australia and Pacific Islands: Share of trade, tourism, and remittances from Australia, 2014
(%)



Australia and Pacific Islands: Market share of Australian banks, 2014
(%)



Sources: ABS; APRA; RBA; IMF, *Direction of Trade Statistics*; BIS; and IMF staff calculations.

Table 1. Australia: Main Economic Indicators, 2010-2020

Annual Percentage change (unless otherwise indicated)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Projections			
NATIONAL ACCOUNTS											
Real GDP	2.3	2.7	3.6	2.1	2.7	2.5	3.0	3.1	3.0	2.9	2.8
Domestic demand	3.5	4.3	4.2	0.5	1.1	0.8	2.1	2.7	2.6	2.9	3.0
Private consumption	3.3	3.1	2.5	1.7	2.5	2.3	2.6	2.7	2.8	2.8	2.9
Public consumption	3.4	3.5	2.3	0.8	2.0	1.0	-0.1	0.9	1.3	1.8	2.0
Investment	4.1	7.2	8.9	-2.1	-2.2	-2.4	2.6	3.9	3.2	3.8	3.8
Public	17.1	-9.9	6.4	-9.0	-0.8	0.0	0.1	0.2	-1.2	1.9	2.3
Private business	0.2	18.3	15.0	-1.8	-6.1	-6.5	2.3	4.7	4.5	4.5	4.5
Dwelling	4.8	1.8	-6.1	0.4	7.9	7.3	5.1	4.6	3.4	3.3	3.2
Net exports (contribution to growth, percent)	-1.5	-2.1	-0.2	1.6	1.7	1.7	1.0	0.5	0.4	0.1	0.0
Gross domestic income	5.5	5.3	1.3	1.2	1.1	0.2	2.4	3.1	2.6	3.0	2.9
Investment (percent of GDP)	27.1	27.6	29.1	27.6	26.7	26.3	26.5	26.7	26.9	27.0	27.2
Public	6.1	5.1	5.3	4.7	4.6	4.7	4.6	4.5	4.3	4.3	4.3
Private	21.0	22.0	23.4	22.9	22.1	21.6	21.9	22.2	22.6	22.7	22.9
Mining investment	2.9	4.2	6.3	6.1	5.2	3.9	1.7	1.7	1.7	1.7	1.7
Non-mining investment	24.2	23.4	22.9	21.5	21.4	22.4	24.9	25.0	25.2	25.4	25.5
Savings (gross, percent of GDP)	23.6	24.9	24.5	24.6	24.1	23.0	23.1	23.1	23.3	23.6	23.8
Potential output	2.8	2.8	2.9	2.7	2.9	2.7	2.8	2.8	2.6	2.6	2.6
Output gap (percent of potential)	-1.0	-1.1	-0.5	-1.1	-1.3	-1.5	-1.3	-1.0	-0.6	-0.3	0.0
LABOR MARKET											
Employment	2.0	1.8	1.2	1.0	0.8	1.6	1.7	1.7	1.6	1.6	1.6
Unemployment (percent of labor force)	5.2	5.1	5.2	5.7	6.1	6.2	6.1	6.0	5.8	5.7	5.5
Wages (nominal percent change)	3.2	3.8	3.7	2.9	2.5	2.7	3.3	3.5	3.7	3.8	3.8
PRICES											
Terms of trade index (goods, avg)	104	118	104	100	92	82	80	80	79	80	80
% change	17.6	13.6	-12.5	-3.8	-8.0	-10.8	-2.6	0.6	-1.5	1.1	0.4
Iron ore prices (index)	116	133	101	107	76	42	35	34	34	34	34
Coal prices (index)	111	137	109	95	79	64	66	66	66	66	66
Oil prices (Brent crude, index)	73	102	103	100	91	53	57	60	62	64	65
Consumer prices (avg)	2.9	3.4	1.7	2.4	2.5	1.8	2.6	2.4	2.5	2.5	2.5
GDP deflator (avg)	5.4	4.3	-0.3	1.2	0.4	-0.8	1.7	1.9	2.0	2.2	2.3
FINANCIAL											
Reserve Bank of Australia cash rate (percent, avg)	4.4	4.7	3.7	2.7	2.5	1.7	1.8	2.2	2.6	3.0	3.4
10-year treasury bond yield (percent, avg)	5.4	4.9	3.5	3.7	3.7	2.1	2.3	2.7	3.1	3.5	3.9
Mortgage lending rate (percent, avg)	7.3	7.7	7.0	6.2	6.0	5.3	5.4	5.8	6.2	6.6	7.0
MACRO-FINANCIAL											
Credit to the private sector	7.7	8.0	5.4	7.3	8.6	6.2	5.2	5.4	4.9	4.7	4.4
House price index	104	99	102	113	120	129	136	142	147	151	155
% change	4.4	-4.1	3.0	10.0	6.8	7.0	5.5	4.4	3.5	3.2	2.7
House price-to-income, capital cities	4.1	3.7	3.9	4.2	4.2	4.4	4.4	4.4	4.3	4.2	4.1
Interest payments (percent of disposable income)	11.2	10.7	9.8	8.9	8.9	8.0	8.7	9.3	9.9	10.3	10.7
Household savings (percent of disposable income)	8.9	10.0	9.6	9.5	8.5	8.0	7.8	7.8	7.8	7.9	8.0
Household debt (percent of disposable income)	150	146	147	150	154	159	161	162	161	158	155
Non-financial corporate debt (percent of GDP)	57	51	49	49	48	49	50	50	51	52	53
GENERAL GOVERNMENT (percent of GDP) 1/											
Revenue	32.0	32.1	33.4	34.1	34.2	34.9	35.1	35.5	35.9	36.3	36.4
Expenditure	37.1	36.6	36.9	36.9	37.1	37.5	37.1	36.5	36.3	36.4	36.4
Net lending/borrowing	-5.1	-4.5	-3.5	-2.8	-2.9	-2.6	-2.0	-1.1	-0.4	-0.1	0.1
Operating balance	-2.8	-2.5	-2.0	-1.6	-1.6	-1.3	-0.6	0.2	0.8	1.1	1.2
Cyclically adjusted balance	-4.8	-4.1	-3.2	-2.4	-2.3	-2.0	-1.4	-0.7	-0.1	0.1	0.1
Gross debt	20.5	24.2	27.9	30.9	34.0	36.4	37.8	38.2	37.5	36.4	35.1
Net debt	3.9	8.1	11.2	13.2	15.7	17.8	18.7	18.7	18.0	17.0	15.9
Net worth	67.8	56.6	52.8	54.2	52.1	52.0	51.6	51.9	52.0	51.2	50.0
BALANCE OF PAYMENTS											
Current account (percent of GDP)	-3.6	-2.9	-4.3	-3.3	-2.8	-3.4	-3.4	-3.6	-3.6	-3.5	-3.4
Export volume	5.8	0.0	6.0	6.2	6.8	6.2	5.3	5.2	5.1	4.3	3.7
Import volume	15.2	11.0	6.2	-1.8	-1.6	-2.0	0.8	3.5	3.9	4.7	4.5
Net international investment position (percent of GDP)	-55	-56	-56	-54	-54	-57	-58	-58	-59	-60	-60
Gross official reserves (bn US$)	42	46	47	59	66	...	...	...	...	...	...
MEMORANDUM ITEMS											
Nominal GDP (bn A$)	1,357	1,454	1,502	1,551	1,600	1,626	1,704	1,790	1,880	1,977	2,080
Percent change	7.8	7.1	3.3	3.3	3.1	1.6	4.8	5.1	5.1	5.1	5.2
Real net national disposable income per capita (% change)	3.9	4.2	0.1	-1.1	-0.6	-1.9	-0.3	0.2	0.4	0.9	1.0
Population (million)	22	23	23	23	24	24	24	25	25	26	26
Nominal effective exchange rate	100	107	110	105	99	...	...	...	...	...	...
Real effective exchange rate	100	107	110	105	100	...	...	...	...	...	...

Sources: Authorities' data and IMF staff estimates and projections.

1/ Calendar year.

Table 2. Australia: Fiscal Accounts, 2009/10-2019/20
(In percent of GDP, unless otherwise indicated)

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
						Est.	Projections				
CONSOLIDATED GENERAL GOVERNMENT OPERATIONS 1/											
Revenue	**32.1**	**31.9**	**32.9**	**33.9**	**34.3**	**34.3**	**34.9**	**35.2**	**35.6**	**36.2**	**36.3**
Tax revenue	25.5	25.6	26.4	27.2	27.5	27.9	28.6	28.9	29.2	29.5	29.6
Direct taxes	18.0	18.2	19.3	19.6	19.7	20.5	21.1	21.4	21.7	22.1	22.2
Individual and withholding	12.1	12.3	12.8	13.1	13.5	14.3	14.8	15.0	15.1	15.4	15.5
Corporate	6.0	5.9	6.5	6.5	6.3	6.3	6.3	6.5	6.6	6.7	6.7
Indirect taxes	7.5	7.3	7.1	7.6	7.8	7.4	7.5	7.5	7.5	7.5	7.5
Of which: GST	3.6	3.4	3.3	3.3	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Non-tax revenue	6.7	6.4	6.5	6.7	6.7	6.4	6.3	6.3	6.5	6.6	6.7
Expenditure	**37.6**	**36.7**	**37.1**	**36.6**	**37.2**	**37.2**	**37.2**	**36.9**	**36.2**	**36.3**	**36.3**
Expense	35.2	34.6	35.3	35.4	35.8	36.0	35.9	35.4	35.0	35.2	35.2
Employee expenses	9.7	9.6	9.7	9.9	9.7	9.9	9.6	9.5	9.3	9.1	8.4
Other operating expenses (excl. depreciation)	9.4	9.3	9.3	9.4	9.5	9.9	10.2	9.9	10.0	9.9	9.9
Transfers	12.8	12.3	12.4	12.4	12.8	12.2	11.9	11.8	11.5	11.9	11.9
Interest (excl. superannuation)	0.9	1.1	1.3	1.4	1.4	1.5	1.6	1.6	1.6	1.5	1.5
Other	2.5	2.4	2.4	2.4	2.6	2.5	2.7	2.7	2.7	2.8	3.4
Net acquisition of nonfinancial assets	2.4	2.1	1.8	1.1	1.4	1.2	1.3	1.5	1.1	1.1	1.1
Of which: Gross fixed capital formation	3.8	3.4	3.2	3.0	3.0	3.2	3.2	3.3	3.5	2.6	2.6
Operating balance	-3.0	-2.7	-2.5	-1.6	-1.5	-1.7	-1.0	-0.2	0.6	1.0	1.1
Primary balance	-4.6	-3.7	-3.0	-1.4	-1.5	-1.3	-0.8	0.0	1.0	1.4	1.5
Net lending (+)/borrowing (-)	**-5.5**	**-4.8**	**-4.3**	**-2.7**	**-2.9**	**-2.9**	**-2.3**	**-1.6**	**-0.6**	**-0.2**	**0.0**
CONSOLIDATED GENERAL GOVERNMENT BALANCE SHEET											
Liabilities	**47**	**49**	**62**	**60**	**65**	**64**	**65**	**65**	**63**	**61**	**59**
Gross debt	19	22	27	29	33	35	37	39	38	37	36
Commonwealth	13	15	19	20	23	26	28	30	30	29	29
States, territories and local governments	5	7	8	9	10	9	9	9	8	8	7
Other liabilities	28	27	36	31	32	29	28	26	25	24	23
Assets	**118**	**114**	**112**	**115**	**118**	**116**	**116**	**116**	**115**	**113**	**109**
Financial assets	46	45	44	46	49	47	48	50	51	51	49
Other assets	72	69	68	69	69	69	68	66	64	62	60
Net financial worth	-1	-4	-18	-14	-16	-17	-16	-14	-12	-10	-10
Net debt	**2**	**5**	**11**	**12**	**15**	**17**	**18**	**19**	**18**	**18**	**16**
Commonwealth 2/	3	6	10	10	13	15	16	17	17	16	15
States, territories and local governments	-1	0	1	2	2	2	2	2	2	2	1
Net worth	**71**	**65**	**50**	**56**	**53**	**52**	**51**	**52**	**52**	**52**	**51**
Commonwealth	-3	-7	-17	-13	-15	-14	-15	-15	-15	-14	-13
States, territories and local governments	74	72	67	69	68	66	67	67	67	66	64
MEMORANDUM ITEMS											
Cyclically adjusted balance (in percent of potential GDP)	-5.2	-4.3	-3.9	-2.4	-2.4	-2.2	-1.7	-1.1	-0.2	0.0	0.1
Change in real revenue (percent)	-2.2	3.5	5.5	4.3	1.9	0.4	2.7	3.2	3.7	4.1	3.1
Change in real primary expenditure (percent)	2.5	0.9	2.6	-2.0	4.2	0.7	1.1	1.4	1.6	3.7	2.6
Commonwealth general government 3/											
Revenue	18.8	18.5	19.6	20.3	20.4	20.3	20.9	21.2	21.7	22.2	22.4
Expenditure	22.8	22.3	22.6	21.8	22.6	22.7	22.7	22.5	22.2	22.5	22.5
Net lending (+)/borrowing (-)	-4.1	-3.7	-3.0	-1.4	-2.2	-2.4	-1.8	-1.3	-0.5	-0.2	-0.1
States, territories and local governments 4/											
Revenue	12.8	12.5	12.8	12.8	13.4	13.6	13.5	13.4	13.4	13.4	13.4
Expenditure	14.0	13.6	13.7	13.9	13.8	13.7	13.9	13.7	13.3	13.2	13.2
Net lending (+)/borrowing (-)	-1.2	-1.1	-0.9	-1.1	-0.4	-0.1	-0.4	-0.2	0.1	0.2	0.2
Commonwealth transfers to subnational governments	7.4	7.0	6.6	6.1	6.2	6.4	6.6	6.7	6.5	6.3	6.3
Of which: General revenue assistance	3.6	3.5	3.4	3.4	3.4	3.6	3.6	3.7	3.7	3.7	3.7
Nonfinancial public sector capital stock	100	96	95	96	97	98	98	97	96	94	93
GDP (in billion A$)	1,308	1,406	1,478	1,527	1,575	1,613	1,665	1,747	1,835	1,929	2,028

Sources: Authorities' data and IMF staff estimates and projections.

1/ Accrual basis; GFS. Comprises the Commonwealth, and state, territory, and local goverments.
2/ Includes Future Fund assets.
3/ Excludes general revenue assistance to states and territories from revenue and expenditure.
4/ Excludes Commonwealth payments for specific purposes from revenue and expenditure.

Table 3. Australia: Balance of Payments, 2010-2020

(In percent of GDP, unless otherwise indicated)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Projections			
BALANCE OF PAYMENTS (% GDP)											
Current account	-3.6	-2.9	-4.3	-3.3	-2.8	-3.4	-3.4	-3.6	-3.6	-3.5	-3.4
Balance on goods and services	0.5	0.9	-1.5	-0.7	-0.6	-1.1	-0.7	-0.3	-0.4	-0.3	-0.4
Exports of goods and services	20.8	21.6	20.1	20.5	20.5	20.1	20.6	21.2	21.4	21.6	21.3
Exports of goods	17.1	18.1	16.6	17.0	16.7	16.1	16.7	17.3	17.6	17.8	17.7
Of which: Resources	10.8	11.8	10.4	10.8	10.6	9.4	9.7	10.2	10.5	10.8	10.8
Exports of services	3.7	3.5	3.5	3.6	3.8	3.9	3.9	3.9	3.8	3.7	3.6
Imports of goods and service	20.3	20.8	21.5	21.2	21.0	21.1	21.3	21.5	21.8	21.9	21.8
Imports of goods	16.2	16.6	17.3	16.7	16.6	16.8	16.9	17.0	17.2	17.3	17.1
Imports of services	4.1	4.2	4.3	4.5	4.4	4.4	4.5	4.5	4.6	4.6	4.6
Primary income, net	-3.9	-3.6	-2.6	-2.5	-2.1	-2.2	-2.6	-3.2	-3.1	-3.0	-2.8
Interest payments	-1.9	-1.7	-1.4	-1.3	-1.3	-1.6	-1.7	-2.4	-2.4	-2.5	-2.3
Equity income	-1.8	-1.6	-0.9	-0.9	-0.5	-0.3	-0.7	-0.6	-0.7	-0.7	-0.6
Secondary income, net	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Capital and financial account											
Capital account, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial account, net	3.5	3.0	4.3	3.4	2.8	3.4	3.5	3.6	3.6	3.5	3.4
Direct investment	1.3	3.7	3.2	3.8	3.6	3.4	3.3	3.1	2.9	2.7	2.6
Equity	1.6	3.1	2.0	1.6	2.7	1.7	1.9	1.8	1.6	1.5	1.4
Debt	-0.2	0.6	1.2	2.2	1.0	1.7	1.4	1.3	1.3	1.3	1.2
Portfolio investment	5.5	2.3	0.8	3.3	1.3	3.5	3.0	2.8	3.1	3.0	2.8
Equity	-0.6	-1.8	-0.1	-0.1	-1.2	-0.1	-0.6	-0.5	-0.3	-0.6	-0.6
Debt	6.1	4.1	1.0	3.4	2.5	3.6	3.6	3.4	3.4	3.7	3.3
Financial derivatives	0.2	-1.7	-0.5	-1.1	-1.0	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8
Other investment	-3.5	-1.0	0.9	-2.3	-0.8	-2.5	-2.0	-1.5	-1.6	-1.4	-1.2
Reserve assets	0.0	-0.3	-0.2	-0.4	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0
Net errors and omissions	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BALANCE SHEET											
Net international investment position	-55	-56	-56	-54	-54	-57	-58	-58	-59	-60	-60
Equity, net	-8	-6	-6	1	4	4	2	1	-1	-1	-2
Assets	52	46	50	58	63	73	73	73	73	73	73
Liabilities	59	52	55	58	59	69	71	72	74	74	76
Debt, net	-47	-49	-50	-55	-58	-60	-60	-59	-59	-59	-58
Assets	45	45	47	53	59	65	66	65	66	65	66
Liabilities	92	94	97	107	117	126	125	124	124	124	124
External assets (gross)	97	91	97	111	122	138	139	138	139	138	139
Equity	52	46	50	58	63	73	73	73	73	73	73
Debt	45	45	47	53	59	65	66	65	66	65	66
External liabilities (gross)	151	147	153	165	177	195	196	196	198	198	199
Equity	59	52	55	58	59	69	71	72	74	74	76
Debt	92	94	97	107	117	126	125	124	124	124	124
Of which: foreign currency, hedged	35	34	30	36	40	46	46	46	46	45	45
A$-denominated	39	42	48	50	54	55	54	54	54	54	54
Short-term	37	38	33	37	39	41	41	41	41	41	41
MEMORANDUM ITEMS											
Gross official reserves (bn A$)	42	46	47	59	66	...	...	...	...	...	...
In months of prospective imports	1.7	1.7	1.7	2.1	2.3	...	...	...	...	...	...
In percent of short-term external debt	8.3	8.2	9.6	10.4	10.4	...	...	...	...	...	...
Net official reserves (bn A$)	41	42	44	50	53	...	...	...	...	...	...
Iron ore prices (index)	116	133	101	107	76	42	35	34	34	34	34
Coal prices (index)	111	137	109	95	79	64	66	66	66	66	66
Oil prices (Brent crude; index)	73	102	103	100	91	53	57	60	62	64	65

Sources: Authorities' data and IMF staff estimates and projections.

Table 4. Australia: Monetary and Financial Sector, 2013-2020

	2013	2014	2015	2016	2017	2018	2019	2020
			Projections					
BALANCE SHEET				In billions of A$				
Total assets	3,296	3,650	3,719	3,902	4,100	4,307	4,528	4,764
Currency and deposits	167	226	230	241	253	266	279	294
Securities other than shares	513	566	576	603	634	666	700	736
Loans	2,349	2,541	2,685	2,825	2,978	3,124	3,273	3,420
Claims on government	12	12	12	13	13	14	15	16
Claims on MFI	262	277	281	295	310	325	342	360
Claims on non-MFIs	2074	2252	2,392	2,517	2,655	2,785	2,916	3,045
Shares and other equity	63	58	59	62	65	68	72	76
Other	204	258	262	275	288	303	319	335
Total liabilities	3,296	3,650	3,719	3,902	4,100	4,307	4,528	4,764
Capital and reserves	212	224	238	254	267	281	295	311
Borrowing from RBA	59	73	74	78	82	86	90	95
Liabilities to other MFIs	553	606	616	646	678	713	749	788
Deposits of non-banks	1,918	2,120	2,154	2,257	2,371	2,492	2,619	2,756
Debt Securities	358	381	387	406	426	448	471	495
Other liabilities	197	245	249	261	275	289	303	319
				In percent of GDP				
Total assets	213	228	229	229	229	229	229	229
Loans	151	159	165	166	166	166	166	164
Claims on MFI	17	17	17	17	17	17	17	17
Claims on non-MFIs	134	141	147	148	148	148	148	146
				Percent change				
Credit non-bank private sector	7.3	8.6	6.2	5.2	5.4	4.9	4.7	4.4
Housing credit 1/	8.6	9.3	7.0	5.5	4.4	3.5	3.2	2.7
o/w investor housing	9.7	12.4	10.0	5.5	4.4	3.5	3.2	2.7
Business credit	1.7	4.4	5.0	4.9	7.1	7.0	7.0	7.0
MEMORANDUM ITEMS								
Wholesale funding ratio	35	36	36	36	36	36	36	36
Loans to deposits (%)	108	106	111	112	112	112	111	110
Leverage ratio (% assets)	3.7	3.7	3.9	4.0	4.0	4.0	4.1	4.1
Regulatory capital ratio (% RWA)	11.8	12.4	12.9	12.5	12.9	13.3	13.7	14.1
CET1 ratio (% RWA) 2/	8.6	9.0	9.3	9.0	9.2	9.4	9.5	9.7
Return on equity (%)	14.5	15.0	15.4	14.9	14.8	14.6	14.5	14.3
Return on assets (%)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Gross impaired assets (% total assets)	0.9	0.6	0.7	0.7	0.7	0.7	0.7	0.6
Specific provisions (% impaired assets)	43	44	42	43	44	43	43	42

Source: IFS (Other Depository Corporations, Table ODC2-SR) , RBA, APRA and Fund staff projections.

1/ Projected using housing model.

2/ From July 2016 onwards, projections incorporate a mininum average mortgage lending risk weights of 25 percent for banks using the internal ratings-based approach.

Annex I. Risk Assessment Matrix

Likelihood	Impact	Policy Response
	Upside	
Medium	**High**	
	1. Domestic demand recovers more strongly than expected, supported by policy actions. With supportive monetary and fiscal policies business investment and domestic demand could pick up more quickly than in the baseline, the labor market could improve and household confidence and spending would rise.	• These scenarios would reduce pressure for monetary policy to ease further and would enable the envisaged gradual fiscal consolidation to stay on track.
Low	**Medium**	
	2. Iron ore prices recover from current lows and raise the terms of trade. A higher iron ore price would improve the terms of trade, boost nominal incomes and help improve the fiscal position. A rise in prices—if expected to be sustained could also re-energize further investments and could boost exports. (See below for sensitivity estimates).	
Low	**Medium**	
	3. Middle-income Asia boosts demand for services exports. Australia's service exports to China and India have increased threefold over the past decade. As Asia's middle class expands, the demand for a range of services—higher education, healthcare, business services tourism and financial services—will likely increase. Some economies have large infrastructure needs which could also bolster demand for resource exports.	
	Downside	• The floating exchange rate provides an important cushion against terms of trade shocks. • For housing market risks, pre emptive early targeted prudential actions and strengthening banks' capital positions over time could help engineer a soft landing in the housing market similar to 2002-2003. • If downside risks materialize from any of these shocks there is room to ease monetary policy further. • The modest public debt level leaves scope for the automatic stabilizers to operate in full, for additional discretionary recurrent spending, and for a return to surplus to be delayed. • In the event of a severe shock the authorities could react as they did at the onset of the global financial crisis including considering a government guarantee if banks lose access to wholesale funding.
Medium	**High**	
	1. Persistently weak demand, perhaps resulting from a further decline in the terms of trade or a weaker monetary policy transmission. Australian Treasury estimates suggest a US$ 10 per ton reduction in iron ore spot prices results in a 3 percent fall in the terms of trade and a 0.8 percent reduction in nominal GDP which by rules of thumb could reduce tax receipts by up to AU$ 4.4 billion (about 0.3 percent of GDP) in a full year. The effects would be bigger if prices fall to levels below production costs.	
Medium	**High**	
	2. Hard landing in the housing market. APRA's stress tests suggests that although banks could absorb as severe shock (house price fall of 40%, unemployment of 13% and an output fall of 4%), but they may face ratings downgrades, higher funding costs and could tighten credit conditions. RBA work shows household financial resilience is relatively high; but in a severe scenario the sector's vulnerability to macroeconomic shocks may have increased a little since the early 2000s.	
Medium Low	**High**	
	3. Structurally weak growth in China over the medium term or sharp slowdown in 2015/16. Previous IMF work suggested that a one percent slowdown in China's investment growth can lower growth in Australia by 0.2 percent. The driver of a slowdown in China matters for Australian exports. Recent weakness in China's residential real estate market has reduced demand for steel and iron ore. IMF work shows that, based on a variety of datasets, there is oversupply of real estate nationwide and growth could be negative in 2015. A sharp adjustment in the Chinese real estate market would likely result in falling iron ore prices, denting Australia's terms of trade.	
High/ Medium	**Medium**	
	4. Tighter or more volatile global financial conditions. Previous IMF work illustrates that a simultaneous reassessment of sovereign risk in the United States, Euro Area and Japan which raises bond yields by 200 basis points in the first year and leaves yields 100 basis points higher for a prolonged period could reduce world growth by 1.2 percent compared to the WEO baseline and by 0.5 to 1 percentage point for Australia.	

Caveat: *It is difficult to quantify shocks as they may not occur in isolation, together the effects could amplify and their severity could vary widely. Policy responses in Australia and abroad would have an important bearing on outcomes. Bearing this in mind for illustrative purposes, the sections summarize stylized estimates based on IMF or Australian authorities work.*

The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

Annex II. External Sector Assessment

Foreign asset and liability position and trajectory	**Background**. Australia has a high negative net international investment position (NIIP) of 54-percent of GDP. The ratio has varied in a range between -45 and -60 percent of GDP since 1992. Liabilities are largely denominated in Australian dollars but assets are in foreign currency. Liabilities are split with around one quarter FDI, one half portfolio investment (principally banks borrowing abroad and foreign holdings of government bonds) and one quarter other investment and derivatives. The current account deficit is expected to remain at 3-4 percent of GDP over the medium term, resulting in a gently rising NIIP to GDP ratio reaching around 60 percent of GDP in 2020. **Assessment**. The structure of Australia's balance sheet reduces the vulnerability associated with a large negative NIIP. Since Australia's NIIP liabilities are mainly in Australian dollars and there is a net foreign currency asset position, a nominal depreciation would strengthen the external balance sheet. The banking sector has a net foreign currency liability position but it is fully hedged. The NIIP level and trajectory are sustainable. The maturity of banks' external funding has improved since the global financial crisis, and even in a tail risk event where domestic banks suffer a major loss, the government's strong balance sheet position allows it to offer credible support.
Current account	**Background**. Australia has run current account (CA) deficits for most of its history, with deficits averaging around 4 percent of GDP in the last three decades, The deficit narrowed to 2.8 percent of GDP in 2014 but is likely to widen in 2015 following a sharp fall in the terms of trade (iron ore prices have fallen by over 35 percent in the past year). To an extent, the effect on the current account is cushioned by the depreciation of the Australian dollar. Also, resource export volumes are increasing sharply as mining capacity comes on stream, mining related imports are falling back, and lower oil prices will improve the oil balance—overall the current accounts widened by 0.6 percent of GDP. Over the medium term, the deficit is expected to be below 4 percent of GDP with a smaller trade deficit partly offset by a larger income deficit as global interest rates normalize and mining income accruing to foreign investors rises. With over half of Australia's exports going to emerging Asia, a key risk is a sharper than expected slowdown in China which could result in a further sharp decline in commodities prices. **Assessment**. Australia's persistent CA deficits reflect a structural saving-investment imbalance with very high private investment relative to a saving rate which is already high by advanced country standards. After accounting for Australia-specific factors driving investment, the staff assessment is that the cyclically-adjusted current account is about 0-1½ percent of GDP below the level implied by medium-term fundamentals and desirable policy settings but this assessment is subject to uncertainty, given that it depends on how non-oil commodity prices evolve. 1/
Real exchange rate	**Background**. As of May 2015, the real effective exchange rate (REER) has depreciated by 10 and 5 percent compared to its 2013 and 2014 averages respectively and is 9 percent down from a recent peak. But it is 15 percent above its average over the last 30 years and looks relatively high when set against the fall in the terms of trade. A number of factors appear to contribute to an elevated Australian dollar, including, continued substantial capital inflows (possibly related to extraordinary monetary easing in major advanced countries), and domestic/foreign interest rate differentials. **Assessment**. Taking into account factors, including the attractiveness of highly-rated Australian assets, staff assesses the REER to be 0 to15 percent above the level implied by medium-term fundamentals and desirable policy settings with the depreciation since June closing the gap a little. 2/
Capital and financial accounts: flows and policy measures	**Background**. The mining investment boom has been funded predominantly offshore. Net FDI inflows into this sector have partially offset the reduced need for the banking sector to borrow abroad. As investment in new mining projects winds down, related demand for imports will decrease, buffering the impact on the overall balance of payments. Australia also received large inflows in recent years into bond markets given its sound fiscal position relative to other advanced economies, owing to relatively high interest rate differentials. **Assessment**. Credible commitment to a floating exchange rate and strong fiscal position limit the vulnerabilities.
FX intervention and reserves level	**Background**. A free-floater since 1983. The central bank did brief but large intervention in 2007–08 when the market for Australian dollars became illiquid (bid-ask spreads widened) following banking sector disruptions in the U.S. The authorities are strongly committed to a floating regime which reduces the need for reserve holding. **Assessment**. Although domestic banks' external liabilities are sizable, they are either in local currency or hedged with little or no counterparty risks, so reserve needs for prudential reasons are also limited.
Technical Background Notes	1/ The EBA CA regression approach for 2014 estimates a CA gap of -1.6 percent of GDP but widens to around 2 percent of GDP when based on 2015 projections this partly reflects changes in the estimated current account norm (from -1.2 to -0.8 percent of GDP) and a widening of the projected deficit in 2015. Using estimated elasticities these would be consistent with an exchange rate overvaluation of around 6-12 percent in 2014 and around 9-15 percent currently, however these estimates may not capture Australia-specific factors such as the sharp increase over the past decade in mining-related investment. Our assessment is that the current account gap is in the range of 0-1½ percent of GDP. 2/ The EBA REER regression approach, the EBA level REER regression and ES approaches provide estimates of a gap encompassing a wide range from 7 to 17 percent in 2014. Taking into account that the current REER is now around 5 percent lower than the average for 2014but part of this reflects a decline in the terms of trade, staff assess the extent of overvaluation to be in a range from 0 to 15 percent.

Overall Assessment:

In 2014 the external position was assessed to be moderately weaker than the level consistent with medium term fundamentals and desirable policies. Since then a sharp decline in the terms of trade has been partly offset by a depreciation of the Australian dollar against the U.S. dollar. If these trends are sustained through 2015 our assessment would be that the external position remains moderately weak, however there is uncertainty surrounding this assessment. The gap appears to be partly driven by the strength of the exchange rate related to ample global liquidity, the relative attractiveness of highly-rated Australian assets. The depreciation of the Australian dollar over the past six months has been driven by overseas developments such as U.S. dollar appreciation (partly offset by movements in the euro and Yen), and the sharp fall in the terms of trade, as well as some domestic monetary policy easing.

Potential policy responses:

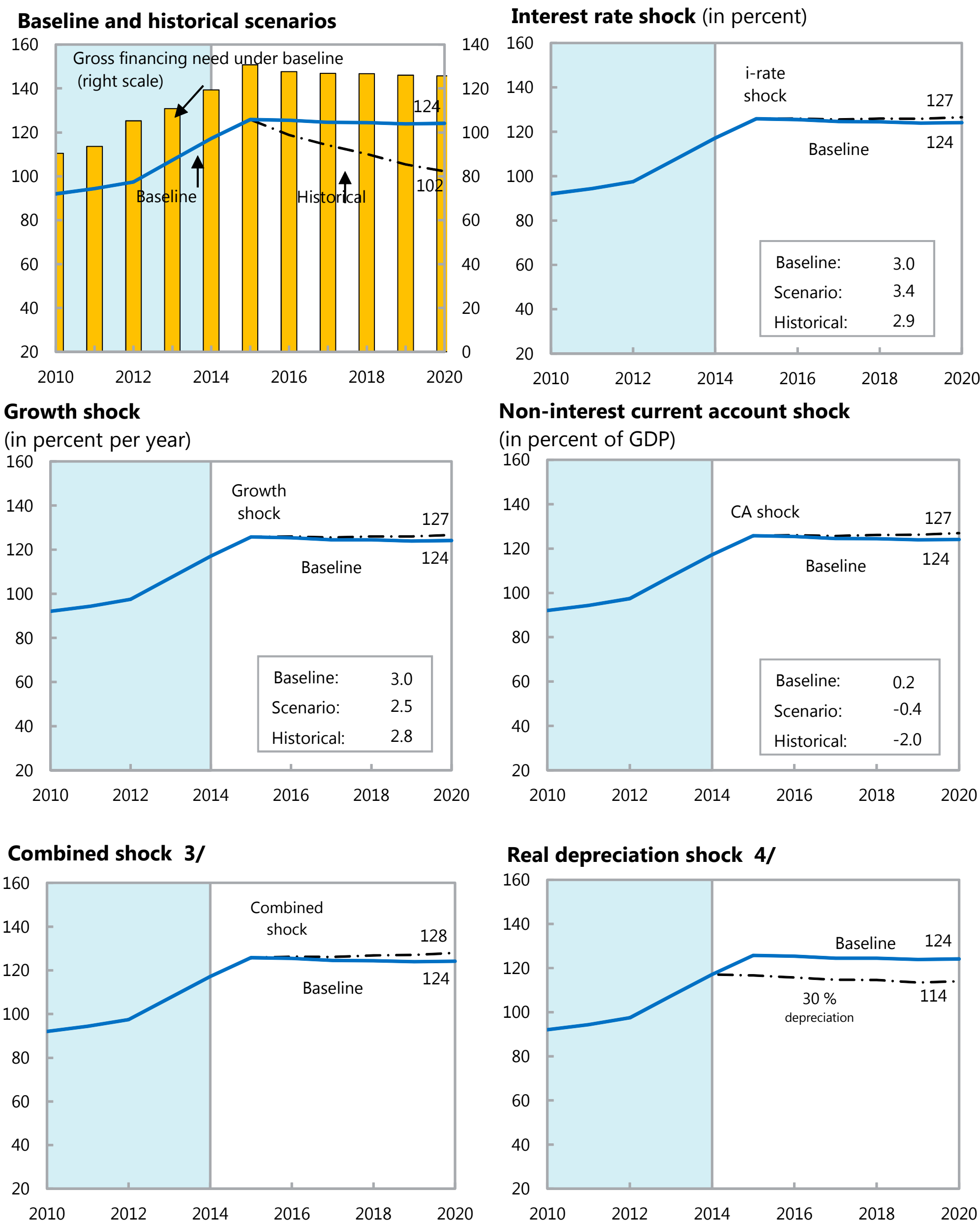
If growth remains on the weak side, further monetary accommodation could be warranted. A faster than expected exit from unconventional monetary policies by major advanced economies, could result in a further exchange rate depreciation which would help support the transition of the economy towards more balanced growth.

The government's planned gradual fiscal consolidation over the longer term should help improve the current account by boosting national savings.

Annex III. External and Fiscal DSAs

Figure 1. Australia: External Debt Sustainability: Bound Tests 1/ 2/

(External debt in percent of GDP)



Sources: International Monetary Fund, Country desk data, and staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.
3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
4/ One-time real depreciation of 30 percent occurs in 2010.

Table 1. Australia: External Debt Sustainability Framework, 2010-2020

(In percent of GDP, unless otherwise indicated)

	Actual							Projections						
	2010	2011	2012	2013	2014	10-Year Historical Average	10-Year Standard Deviation	2015	2016	2017	2018	2019	2020	Debt-stabilizing non-interest current account 6/
1 **Baseline: External debt**	92.0	94.4	97.5	107.4	117.2			**125.8**	**125.5**	**124.5**	**124.4**	**123.9**	**124.1**	**-3.9**
2 Change in external debt	-5.7	2.4	3.1	9.9	9.8			8.6	-0.3	-0.9	-0.1	-0.5	0.2	
3 Identified external debt-creating flows (4+8+9)	-13.3	-11.7	-1.8	0.9	0.1			-2.8	-3.3	-2.9	-2.6	-2.5	-2.4	
4 Current account deficit, excluding interest payments	0.9	0.4	2.2	1.5	0.9			1.4	1.0	0.1	-0.3	-0.8	-0.7	
5 Deficit in balance of goods and services	-0.5	-0.9	1.5	0.7	0.6			1.1	0.7	0.3	0.4	0.3	0.4	
6 Exports	20.8	21.6	20.1	20.5	20.5			20.1	20.6	21.2	21.4	21.6	21.4	
7 Imports	20.3	20.7	21.5	21.2	21.0			21.2	21.4	21.5	21.8	21.9	21.8	
8 Net non-debt creating capital inflows (negative)	-2.6	-3.1	-2.9	-2.7	-3.4			-2.9	-2.9	-2.8	-2.7	-2.5	-2.4	
9 Automatic debt dynamics 1/	-11.6	-8.9	-1.2	2.1	2.6			-1.3	-1.3	-0.2	0.4	0.8	0.7	
10 Contribution from nominal interest rate	2.7	2.5	2.0	1.9	1.9			2.1	2.5	3.5	3.9	4.2	4.1	
11 Contribution from real GDP growth	-1.8	-2.1	-3.3	-2.1	-3.0			-3.4	-3.8	-3.7	-3.6	-3.4	-3.4	
12 Contribution from price and exchange rate changes 2/	-12.5	-9.4	0.1	2.3	3.8			...	...	...	...	...	...	
13 Residual, incl. change in gross foreign assets (2-3) 3/	7.6	14.0	4.9	9.0	9.7			11.5	2.9	2.0	2.5	1.9	2.7	
External debt-to-exports ratio (in percent)	441.6	436.9	485.6	522.5	572.2			625.6	607.6	587.9	581.1	573.2	580.7	
Gross external financing need (in billions of US dollars) 4/	1129.3	1403.4	1638.1	1664.3	1723.4			1623.8	1604.7	1657.7	1718.7	1768.3	1840.7	
in percent of GDP	90.5	93.5	105.3	110.8	119.3			130.8	127.7	126.9	126.7	126.0	125.7	
Scenario with key variables at their historical averages 5/								**125.8**	**118.8**	**114.1**	**110.1**	**105.4**	**102.3**	**-8.7**
Key Macroeconomic Assumptions Underlying Baseline														
Real GDP growth (in percent)	2.3	2.7	3.6	2.1	2.7	2.8	0.8	2.5	3.0	3.1	3.0	2.9	2.8	
GDP deflator in US dollars (change in percent)	22.5	17.0	0.1	-5.4	-6.4	5.7	10.5	-16.1	-1.8	0.8	0.8	0.6	1.5	
Nominal external interest rate (in percent)	3.4	3.3	2.2	1.8	1.7	2.9	0.8	1.5	2.0	2.9	3.3	3.5	3.5	
Growth of exports (US dollar terms, in percent)	31.8	24.6	-3.7	-1.2	-4.2	11.0	16.0	-15.6	3.9	6.6	5.0	4.4	3.2	
Growth of imports (US dollar terms, in percent)	23.7	22.7	7.7	-5.0	-4.6	9.4	13.9	-13.5	2.2	4.6	5.3	4.0	3.8	
Current account balance, excluding interest payments	-0.9	-0.4	-2.2	-1.5	-0.9	-2.0	1.2	-1.4	-1.0	-0.1	0.3	0.8	0.7	
Net non-debt creating capital inflows	2.6	3.1	2.9	2.7	3.4	3.0	1.3	2.9	2.9	2.8	2.7	2.5	2.4	

1/ Derived as [r - g - r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price and exchange rate changes is defined as [-r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock. r increases with an appreciating domestic currency (e > 0) and rising inflation (based on GDP deflator).

3/ For projection, line includes the impact of price and exchange rate changes.

4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Australia Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

(in percent of GDP unless otherwise indicated)

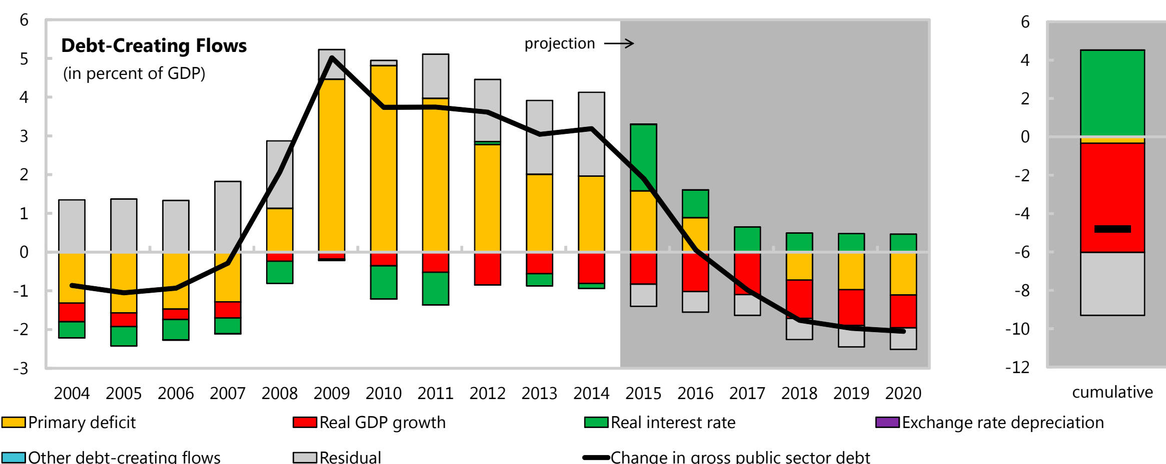
Debt, Economic and Market Indicators [1]

	Actual			Projections					
	2004-2012 [2]	2013	2014	2015	2016	2017	2018	2019	2020
Nominal gross public debt	16.0	30.9	34.1	36.0	36.0	35.1	33.3	31.3	29.3
Public gross financing needs	1.5	2.9	3.0	2.5	2.0	1.6	1.4	1.6	1.6
Real GDP growth (in percent)	3.0	2.1	2.7	2.5	3.0	3.1	3.0	2.9	2.8
Inflation (GDP deflator, in percent)	3.7	1.2	0.4	-1.1	1.8	1.9	2.2	2.3	2.2
Nominal GDP growth (in percent)	6.9	3.3	3.1	1.4	4.8	5.1	5.3	5.2	5.1
Effective interest rate (in percent) [4]	6.4	5.1	4.9	4.0	3.9	3.8	3.8	3.8	3.9

As of April 30, 2015		
Sovereign Spreads		
EMBIG (bp) 3/		59
5Y CDS (bp)		34
Ratings	Foreign	Local
Moody's	Aaa	Aaa
S&Ps	AAA	AAA
Fitch	AAA	AAA

Contribution to Changes in Public Debt

	Actual			Projections							
	2004-2012	2013	2014	2015	2016	2017	2018	2019	2020	cumulative	debt-stabilizing primary balance [9]
Change in gross public sector debt	1.7	3.0	3.2	1.9	0.1	-1.0	-1.8	-2.0	-2.0	-4.8	
Identified debt-creating flows	0.4	1.1	1.0	2.5	0.6	-0.4	-1.2	-1.4	-1.5	-1.5	
Primary deficit	1.3	2.0	2.0	1.6	0.9	0.0	-0.7	-1.0	-1.1	-0.3	-0.4
Primary (noninterest) revenue and grants	33.7	33.5	33.7	34.5	34.7	35.0	35.4	35.8	35.9	211.2	
Primary (noninterest) expenditure	35.0	35.5	35.6	36.1	35.6	35.0	34.7	34.8	34.8	210.9	
Automatic debt dynamics [5]	-0.9	-0.9	-0.9	0.9	-0.3	-0.4	-0.5	-0.4	-0.4	-1.2	
Interest rate/growth differential [6]	-0.9	-0.9	-0.9	0.9	-0.3	-0.4	-0.5	-0.4	-0.4	-1.2	
Of which: real interest rate	-0.5	-0.3	-0.1	1.7	0.7	0.7	0.5	0.5	0.5	4.5	
Of which: real GDP growth	-0.4	-0.6	-0.8	-0.8	-1.0	-1.1	-1.0	-0.9	-0.8	-5.7	
Exchange rate depreciation [7]	0.0	0.0	0.0	...	...	...	...	...	...	...	
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Net privatization proceeds (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroare	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes [8]	1.3	1.9	2.2	-0.6	-0.5	-0.5	-0.5	-0.6	-0.6	-3.3	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).

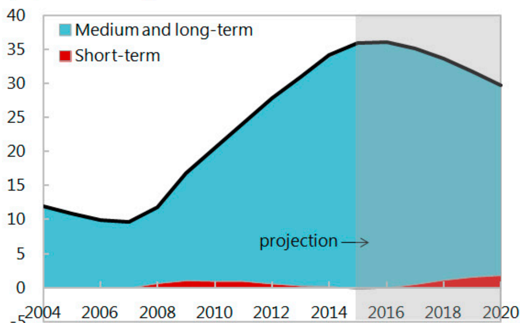
8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

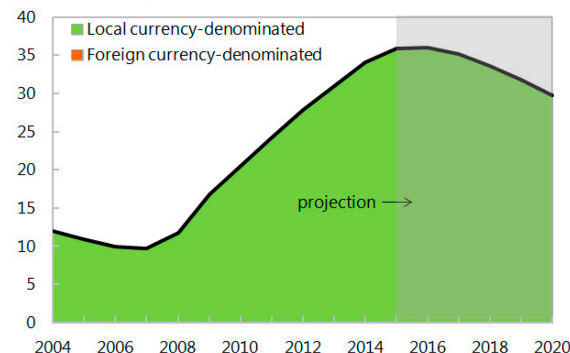
Australia Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



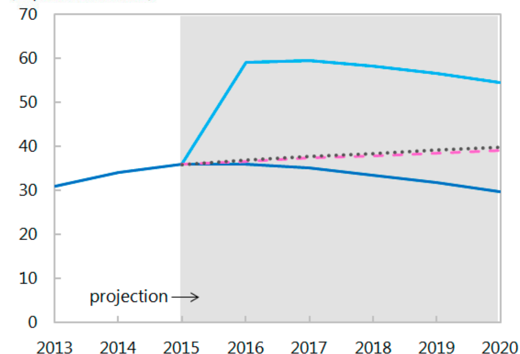
By Currency
(in percent of GDP)



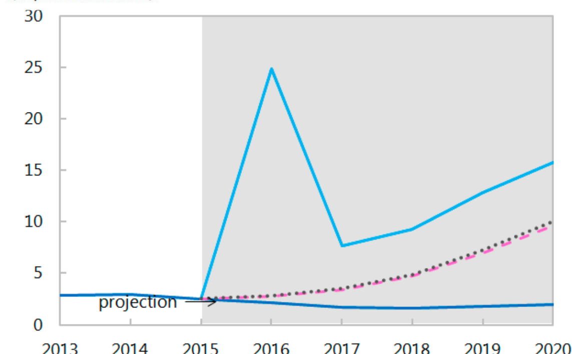
Alternative Scenarios

Baseline
Contingent Liability Shock
Historical
Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions
(in percent)

Baseline Scenario	2015	2016	2017	2018	2019	2020
Real GDP growth	2.5	3.0	3.1	3.0	2.9	2.8
Inflation	-0.9	1.7	1.9	2.0	2.2	2.3
Primary Balance	-1.6	-0.9	-0.1	0.6	0.9	1.0
Effective interest rate	4.0	3.9	3.8	3.8	3.8	3.9
Constant Primary Balance Scenario						
Real GDP growth	2.5	3.0	3.1	3.0	2.9	2.8
Inflation	-0.9	1.7	1.9	2.0	2.2	2.3
Primary Balance	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6
Effective interest rate	4.0	3.9	3.8	3.7	3.7	3.7

Historical Scenario	2015	2016	2017	2018	2019	2020
Real GDP growth	2.5	2.8	2.8	2.8	2.8	2.8
Inflation	-0.9	1.7	1.9	2.0	2.2	2.3
Primary Balance	-1.6	-1.7	-1.7	-1.7	-1.7	-1.7
Effective interest rate	4.0	3.9	3.8	3.8	3.9	3.9
Contingent Liability Shock						
Real GDP growth	2.5	2.2	2.3	3.0	2.9	2.8
Inflation	-0.9	1.5	1.7	2.0	2.2	2.3
Primary Balance	-1.6	-23.4	-0.1	0.6	0.9	1.0
Effective interest rate	4.0	4.5	5.5	5.0	4.7	4.4

Source: IMF staff.

Annex IV. High-Priority FSAP Recommendations

	Recommendations	Implementation
Financial Stability		
1	Develop a top down stress testing framework and publish top down stress test results in the Financial Stability Review (RBA)	On track. The RBA is developing a top down stress testing framework for banks, to complement APRA's stress tests. Practices at other central banks have been assessed and the RBA is consulting stakeholders. Research papers on Australian credit loss models have been published.
2	Devote more resources to stress testing (APRA)	Implemented. APRA has increased resources for stress testing and is implementing an internal stress testing strategy.
3	Introduce higher loss absorbency (HLA) for systemic banks (APRA)	On track. APRA released an information paper setting out its framework for identifying and imposing higher loss absorbency on domestic systemically important banks. The framework will come into effect from January 1, 2016.
Financial Sector Oversight		
4	Intensify on-site supervision of bank liquidity and upgrade daily liquidity reporting requirements to ensure consistency (APRA)	Implemented. The daily liquidity reporting requirement took effect on April 1, 2015. APRA is in the process of testing each ADI's ability to produce the report. This process will continue until March 2016.
5	Improve the effectiveness of conduct of business supervision for insurance companies (note recommendation 6) (Treasury)	Implementation in progress. In October 2014, ASIC published a *Review of retail life insurance advice*, which considers the advice provided to consumers on life insurance. Further consideration of the financial services regime and remuneration for life insurance advisers will be undertaken in the context of the Government's response to the Financial System Inquiry.
6	Ensure sufficiency and stability of ASIC core funding (Treasury)	Further consideration required. ASIC has received new funding of $20.1 million over four years as part of Budget 2015-16. ASIC's funding will be further considered in the context of the Government's response to the Financial System Inquiry.
7	Extend risk based capital requirements, large exposure rules, and reporting requirements to ensure that AFSL holders are appropriately covered (Treasury/ASIC)	Further consideration required. ASIC has introduced increased risk based capital adequacy requirements and periodic reporting for additional classes of licensees e.g., custodians. ASIC is undertaking preliminary work to gauge the extent to which there are significant potential risks from large exposures in Australia.
Crisis Management		
8	Re-evaluate the merits of ex-ante funding for the FCS with a view to converting it to an ex-ante funded scheme (Treasury/CFR)	On track. In August 2013 the previous Government committed to establishing a dedicated Financial Stability Fund, from January 2016. Implementation will be subject to the outcomes of the Financial System Inquiry.
9	Introduce HLA for systemic banks (APRA)	See recommendation 3 above.
10	Ensure ADI implementation of single customer view (SCV) on, or where possible, ahead of the agreed timetable (APRA)	On track. Under the Prudential Standard, ADIs were required to have implemented the SCV by January 1, 2014. A number of ADIs received an extension to this deadline due to the complexity and size of the IT system changes. Only two ADIs are currently outstanding with their SCV implementation.
11	Conduct frequent and focused crisis simulations and other forms of resolution testing (APRA/CFR)	Implemented. APRA had adopted a new internal framework for crisis simulations which includes more frequent simulations of various scopes. The CFR has also adopted a new framework for cross-agency simulations, including Trans-Tasman involvement.
12	Continue recovery planning and introduce resolution planning (APRA)	On track. APRA has completed a recovery planning pilot exercise which included the six largest ADIs, and has since extended the requirement to a number of medium-sized ADIs. APRA is continuing to develop a formal framework and updated guidance for recovery planning. In regard to resolution planning, APRA continues to operationalize the FCS and to consider the development of entity-specific resolution plans, where appropriate working with the other CFR agencies.

INTERNATIONAL MONETARY FUND

AUSTRALIA

August 3, 2015

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By Asia and Pacific Department

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FUND RELATIONS

(As of June 30, 2015)

Membership Status: Joined: August 5, 1947; Article VIII

General Resources Account:

	SDR Million	Percent Quota
Quota	3,236.40	100.00
Fund holdings of currency (exchange rate)	2,668.68	82.46
Reserve tranche position	568.13	17.55
Lending to the Fund New Arrangements to Borrow	419.55	

SDR Department:

	SDR Million	Percent Allocation
Net cumulative allocation	3,083.17	100.00
Holdings	3,234.93	104.92

Outstanding Purchases and Loans: None

Financial Arrangements: None

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-By	May 01, 1961	Sep 05, 1961	100.00	0.00

Projected Obligations to Fund[1]

(SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2015	2016	2017	2018	2019
Principal					
Charges/interest		0.05	0.05	0.05	0.05
Total		0.05	0.05	0.05	0.05

[1] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Rate Arrangement. Australia has accepted the obligations of Article VIII, Sections 2, 3, and 4 of the Articles of Agreement, and maintains an exchange system that is free from restrictions on the making of payments and transfers for current international transactions, except for exchange restrictions that are maintained solely for the preservation of national or international security and which have been notified to the Fund pursuant to Executive Board Decision No. 144-(52/51). The exchange rate is free floating, but the Reserve Bank of Australia retains discretionary power to intervene. There are no taxes or subsidies on purchases or sales of foreign exchange.

Restrictions on Capital Transactions. Australia maintains a capital transactions regime that is virtually free of restrictions. Two main restrictions on foreigners require: authorization for significant ownership of Australian corporations; and approval for acquisition of real estate.

Article IV Consultation. Australia is on the 12-month consultation cycle. The 2015 Article IV consultation discussions were held during June 11-24, 2015; the Executive Board discussed the staff report and concluded the consultation on September 14, 2015.

FSAP Participation. The last FSAP Update involved two missions: April 23-May 15 and July 9-24, 2012; the Executive Board discussed the assessment (IMF Country Report No. 12/308) on November 12, 2012.

Fourth Amendment. Australia has accepted the Fourth Amendment to the Articles of Agreement.

STATISTICAL ISSUES

Data provision is adequate for surveillance. Australia has subscribed to the Special Data Dissemination Standard (SDDS) since April 1996, and its metadata are posted on the Fund's Dissemination Standards Bulletin Board (DSBB). Australia also participates in the G-20 Data Gaps Initiative and has implemented all the recommendations of the first phase of the DGI, with the exception of semi-annual Coordinated Portfolio Investment Survey (CPIS) data. Australia has no plans to adhere to the SDDS Plus. In recent years, the Australian Bureau of Statistics (ABS) has taken several initiatives to further improve the quality of the data, such as issues relating to seasonal adjustment of unemployment and employment statistics. Adding monthly inflation data to the suite of statistics would assist surveillance.

Table of Common Indicators Required for Surveillance
(As of July 31, 2015)

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]
Exchange Rates	07/31/15	07/31/15	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	06/15	07/07/15	M	M	M
Reserve/Base Money	06/15	07/07/15	M	M	M
Broad Money	05/15	06/30/15	M	M	M
Central Bank Balance Sheet	07/29/15	07/31/15	W	W	W
Consolidated Balance Sheet of the Banking System	05/15	06/30/15	M	M	M
Interest Rates[2]	07/31/15	07/31/15	D	D	D
Consumer Price Index	Q2 2015	07/21/15	Q	Q	Q
Revenue, Expenditure, and Balance – General Government[4]	03/15	06/02/15	Q	Q	Q
Revenue, Expenditure, and Balance – Central Government	03/15	06/02/15	Q	Q	Q
Composition of Financing[3] – General Government[4]	05/15	06/30/15	M	M	M
Composition of Financing[3]– Central Government	05/15	06/30/15	M	M	M
External Current Account Balance	Q1 2015	06/01/15	Q	Q	Q
Exports and Imports of Goods and Services	05/15	07/01/15	M	M	M
GDP/GNP	Q1 2015	06/02/15	Q	Q	Q
Gross External Debt[5]	Q1 2015	06/01/15	Q	Q	Q
International Investment Position[6]	Q1 2015	06/01/15	Q	Q	Q

[1] Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] Consists of the central government (including budgetary, extra budgetary, and social security funds) and state and local government
[5] Including currency and maturity composition.
[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[7] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A), Irregular (I); Not Available (NA).

INTERNATIONAL MONETARY FUND

AUSTRALIA

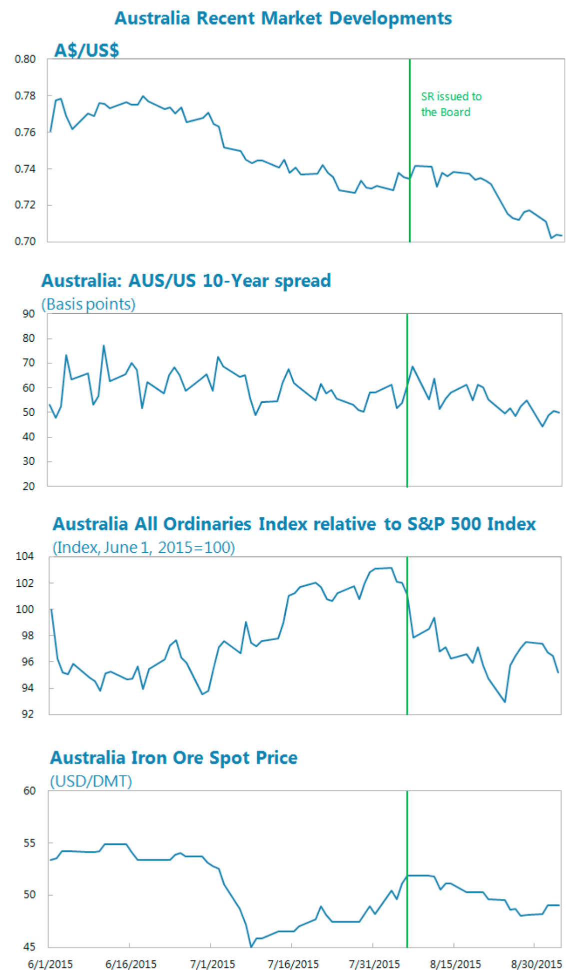
September 8, 2015

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION—SUPPLEMENTARY INFORMATION

Approved By **Asia and Pacific Department**

1. **This supplement contains information that has become available since the Staff Report was circulated to the Executive Board on August 6, 2015.** It does not alter the staff's broad assessment of policy issues and recommendations contained in the report.

2. **Global financial market volatility has increased since July with commodity prices and stock markets weakening in response to economic and financial market developments in China.** The Australian dollar has depreciated further against the US dollar and on a trade weighted basis. This has significantly reduced the likely degree of exchange rate overvaluation and should help support activity. However, equities have lost ground and iron ore prices have traded in a weak U.S.$45-50 range.



3. **GDP data for Q2 came in at the weak end of market expectations but broadly in line with staff projections.** Weather-related effects weighed on net exports and dampened growth in Q2 after a stronger outturn in Q1. The continued decline in mining investment also exerted a drag on

growth. Annualized growth in H1 was 2.2 percent, somewhat below trend. However, recent indicators of business conditions and consumer confidence have been more positive, pointing to a continued gradual pick up in non-mining activity and services exports are benefiting from the lower exchange rate. In response to these developments, staff has shaved down growth projections for 2015 and 2016 to 2.4 percent and 2.9 percent respectively (from 2.5 percent and 3.0 percent respectively).

4. A slower rise in population may be a slight downside risk to potential growth. Recent data released by the Australian Bureau of Statistics shows population growth slowed to 1.4 percent in 2014 (compared to 1.6 percent in 2013) which, if it persists, could pose a modest downside risk to potential growth estimates.

5. Labor market conditions have remained steady. While the unemployment rate rose to 6.3 percent in July, employment held up and the participation rate rose.

6. The Reserve Bank of Australia left interest rates on hold at the August and September meetings. Latest RBA forecasts reduced projected growth to 2-3 percent in 2016 (down from 2½-3½ percent) and left 2015 unchanged at 2¼ percent; inflation is expected to remain consistent with the 2-3 percent target.

Statement by Barry Sterland, Executive Director for Australia
and Christopher Stewart, Advisor to Executive Director
September 14, 2015

We thank the staff for the set of papers, the high quality of engagement with our authorities and the congruence of views.

The Australian economy is currently performing well in the face of one of the largest terms of trade adjustments in its history. Such a shock will inevitably affect growth, though the economy is proving resilient and flexible in the circumstances. Growth has remained around 2½ per cent, unemployment around 6 per cent, inflation and inflation expectations appear well anchored, and public debt remains low by international standards.

The Australian authorities are determined to continue to build upon the policy approaches that have stood the Australian economy in good stead as it enters its 25th year of economic growth. These include medium term macroeconomic policy frameworks that continue to emphasize prudence with a capacity to respond flexibly to economic conditions; a flexible exchange rate; flexible and competitive product and labor markets and other measures to build productivity and participation; strong economic engagement with our region; and sound financial regulatory arrangements.

Outlook and risks

My authorities agree with staff that activity is likely to gradually strengthen. The transition from mining-led growth to broader-based growth is underway. While the fall in commodity prices from their peak in 2011 has contributed to the largest fall in the terms of trade in more than 50 years, the trade-weighted exchange rate has provided a buffer for the real economy, depreciating by about 20 per cent over the same period. Apart from recent temporary weather-related factors in the June quarter, mining export production is continuing to ramp up in response to the extraordinarily strong growth in investment over the preceding decade. Service exports are also growing strongly, partly in response to the lower exchange rate. Accommodative monetary policy settings are working to underpin a gradual improvement in growth, including through support for dwelling construction. Private consumption remains firm, and the conditions are in place for a pick-up in non-mining business investment. Subdued wage growth is also supporting employment and the economy's growth transition. Inflation is expected to remain in line with the Reserve Bank of Australia's target of 2 to 3 per cent, on average, over the business cycle, and expectations appear well anchored.

Authorities consider risks to be reasonably well balanced, though they are carefully monitoring their evolution. Domestically, the key uncertainty is around the anticipated strengthening of growth in the non-mining economy, specifically whether the pick-up in non-mining investment will be sustained in 2015-16 and offset falls in mining investment. This poses both upside and downside risks as noted in the report. In relation to the outlook for China, authorities note that the Australian Budget has been based on relatively conservative forecasts of Chinese growth for some time, that commodity prices remain in line with Budget forecasts, and that the Chinese authorities have numerous policy tools at their disposal and

have shown a willingness to use these instruments to manage growth and financial conditions.

The authorities are particularly appreciative of the analytical work done by staff on Australian house prices and consider that this more nuanced and thorough approach should be used more widely in surveillance. This work highlights that the risks arising from the housing market should not be overstated, with rapid price growth being concentrated in particular markets, few generalized signs of oversupply or mortgage overextension by households, and coordinated policy actions by regulators starting to take effect.

There remains policy space to respond to downside risks if they materialize, while also recognizing that the economy will continue to benefit from the flexibility built over the past couple of decades, including the key role played by the exchange rate in cushioning the economy against external shocks.

Authorities agree with staff that risks associated with the macro-financial outlook are not prominent. The discussion benefited from a focus on macro-financial linkages, and Box 4 serves as a useful check on the overall soundness of Australian credit and sectoral balance sheet positions. The current account deficit continues to reflect Australia's strong investment opportunities not being fully met by Australia's higher-than-average domestic savings, and is close to that estimated by the External Balance Assessment. As staff indicate, while Australia has a net foreign liability position, the country has a net foreign currency asset position, given that the bulk of foreign liabilities are denominated in, or hedged back into, Australian dollars. The banking sector has a diversified funding mix including, for example, a sizeable share of its wholesale funding is sourced through instruments with maturities of greater than a year, and the corporate sector more generally is well hedged against exchange rate movements. We note also that the current account deficit is expected to remain towards the low end of the range in which it has fluctuated over recent decades, and that net foreign liabilities have been stable as a share of GDP over the past decade.

Monetary policy

The RBA is largely in agreement with staff on monetary policy. Monetary policy is supporting economic growth, with the interest sensitive parts of the economy responding to this stimulus. In particular, monetary policy has ensured that finance remains readily available to creditworthy borrowers, supporting housing activity and dwelling construction, and providing a platform for business investment. The Australian dollar is adjusting to significant declines in key commodity prices. At the same time, the authorities recognize that monetary policy cannot be the driver of medium-term growth, and note that the cost of credit is not holding back investment.

Fiscal policy

Fiscal policy is anchored by the policy of returning to surplus over the medium term. Returning to a budget surplus remains a priority given challenges from social spending commitments over the long term (including those associated with ageing), as well as the importance of retaining Australia's favorable standing with external creditors (it is one of

only eight sovereigns with the highest credit rating with all agencies). It demonstrates adherence to the longstanding medium-term fiscal framework of achieving budget surpluses, on average, over the course of the economic cycle. The Australian Government has set out a clear and credible fiscal consolidation path. Within this sound approach, the Government has implemented its fiscal strategy to provide support for jobs and growth, with the 2015/16 Budget prioritizing spending in areas that will build a stronger economy and including measures to boost infrastructure (see below) and business investment, including by SMEs.

Against this background, the authorities do not agree with the staff characterization of the aggregate fiscal consolidation as 'somewhat more frontloaded than desirable'. Authorities consider that the current relatively gradual consolidation strikes the right balance between short- and medium-term considerations. There is limited scope for easing the rate of consolidation in structural terms given the importance of adhering to fiscal frameworks and anchors that have served Australia well. The chart on Page 8 demonstrates the significant extent to which revenue weakness, including that associated with commodity price write-downs, has been allowed to flow through to a more gradual fiscal consolidation. Moreover, the planned gradual consolidation is in line with the staff's estimates of a gradual closing of the output gap after this year. In addition, recent state budgets imply less aggregate consolidation in 2015/16 than was expected at the time of the May Federal Budget, with the combined state and local government deficit expected to increase this year.

Within its medium-term fiscal strategy, the Australian Government remains committed to addressing infrastructure bottlenecks. Funding infrastructure has been a key focus of recent budgets, with key spending both added and brought forward. Substantial investments are planned in transport infrastructure and the Government's national broadband network in the next few years. The Government's Asset Recycling Initiative and the Northern Australia Infrastructure Facility will provide scope for additional investment in high priority infrastructure projects as they are identified. This builds on the biggest infrastructure program in Australia's history, which is expected to permanently boost the size of the economy by one percent over the longer term.

The Australian Government is developing a pipeline of high-quality projects supported by transparent cost-benefit analysis. For example, Infrastructure Australia is charged with helping all levels of government and the private sector to prioritize and progress nationally significant infrastructure through its independent advice on the projects and reforms needed to fill Australia's infrastructure gap. Following a recent comprehensive review of Australia's infrastructure needs, it is now formulating a 15-year plan based on national and state priorities. Australia also works on an international level to encourage quality infrastructure development, and is hosting the G20's Global Infrastructure Hub to enhance information about opportunities and build links between private sector investment and public infrastructure projects.

Potential growth and structural reforms

The authorities recognize the need for continued action to secure Australia's future prosperity. In particular, they recognize that future income growth requires a continued focus on productivity-enhancing reforms. Review processes are currently underway examining the

reform in labor markets, competition, taxation, and federal-state relations that could play an important role in raising economic efficiency. Given Australia is near the productivity frontier in numerous sectors, there is no single lever that can be pulled to produce a large impact, rather a range of approaches is required. Australian authorities are conscious of the need to balance the impact of specific reforms on individual groups and to explore complementary reforms that can reinforce positive impacts on growth while ensuring fairness. At the same time, the authorities consider that any changes to tax and superannuation need to have regard to Australia's already highly progressive tax and welfare arrangements and ensure that they take account of investment decisions people have already made in good faith on the basis of existing policy, and take into account the potential complexities arising from undertaking such changes in a low-return environment. The authorities also note the costs associated with the impacts of continued tax bracket creep on labor supply.

The authorities recognize that the rate of potential output growth is uncertain and will depend on many factors. The increasing diversification of the Australian economy and integration with Asia represents a key opportunity to underpin medium- to long-term growth prospects. In particular, a growing middle class in Asian emerging economies is likely to increase demand for goods and services produced in Australia. Recently concluded free trade agreements with Japan, Korea and China will also assist, including through opening trade and investment in the service sectors. Nevertheless, authorities recognize that the key to ensuring continued strong growth in Australia's economy remains pushing ahead with policies that will improve innovation, productivity, and participation as outlined above.

Financial Stability

The Australian financial system continues to perform strongly and near-term risks to financial stability from households, businesses and the financial sector appear low. APRA's intensive and risk-based approach to financial sector regulation and supervision, along with the strong capital position and broadly prudent practices of Australia's banking system, has helped the financial system withstand shocks. Over recent years authorities have been undertaking targeted responses to developments in segments of the property sector by reinforcing sound lending practices, including focusing on the heightened level of investor activity in the housing market. This has been supplemented by ASIC's review into interest-only lending practices and the RBA's work assessing and publicly noting the need for prudent risk taking by both lenders and borrowers. There are signs this approach is having some effect, as evidenced by changes in banks' loan pricing, loan serviceability standards and product offerings. Growth in investor credit is expected to slow in the second half of 2015. The overall effectiveness of these actions is subject to ongoing monitoring, and regulators will consider whether additional steps are needed depending upon the evolution of risks in the housing and mortgage markets, including Pillar 2 actions if individual banks fail to rein in investor lending. Actions are coordinated through the Council of Financial Regulators which includes the RBA, Treasury, APRA and ASIC.

The authorities are also building upon the existing strength of the financial sector by increasing over time the capital position of banks and other authorized deposit-taking institutions (ADIs). APRA has already announced plans to increase the amount of capital

held by the largest banks against housing loans. The major banks have recently issued, or are in the process of issuing, a significant amount of additional capital, and appear well placed to accumulate capital in the period ahead. More generally, the authorities fully support the findings of the recent Financial System Inquiry (FSI) that the capital ratios of ADIs should be 'unquestionably strong'. APRA's final response to the FSI will require further consideration, and changes will need to be in line with evolving international standards, commensurate to risks, and gradual so as to minimize unnecessary costs. Nevertheless, APRA has indicated publicly that it is likely that the major banks will need to increase their capital ratios further over the next couple of years. This will further reinforce the conservative requirements already imposed by APRA on the basis that banks should be able to support the economy in the aftermath of any severe recession rather than just survive such a scenario.