



Australian Government

The Treasury

# JOINT ECONOMIC FORECASTING GROUP REPORT

ECONOMIC OUTLOOK FOR  
2014–15 and 2015–16

September 2014

The forecasts contained in this report incorporate domestic and international data released up to 3 October 2014

## EXECUTIVE SUMMARY

Compared with Budget, forecast real GDP growth in 2014-15 and 2015-16 is unchanged at 2½ per cent and 3 per cent. Export growth and consumption growth are both forecast to be a little weaker in the near term, but this is balanced by an improved outlook for investment in the non-resources sectors, supported in part by the depreciation of the Australian dollar.

However, the outlook for nominal GDP growth has changed significantly, because commodity prices have fallen further and more sharply than expected at Budget. Wage growth has also been a bit softer than expected. Forecast nominal GDP growth in 2014-15 has been downgraded from 3 per cent to 2 per cent.

Risks to the outlook remain. The pick-up in the non-mining sectors of the economy could be delayed if consumers continue to exhibit caution in spending, despite the large accumulation of household savings. On the other hand, a further fall in the dollar would strengthen the outlook for exporting and import-competing businesses.

The global economy had a weaker-than-anticipated first half of 2014 but should strengthen going into 2015. Although China is still expected to hit its growth target of 'around 7½ per cent', the property market slowdown heightens medium-term risks and puts further downward pressure on iron ore prices. The United States has resumed a solid recovery following the weather-induced first quarter contraction but the euro area and Japan have lost momentum. The stalling of the euro area recovery and a potential slide into permanently lower potential growth and inflation remains a key risk to the global economy.

Table 1: Key domestic and international forecasts<sup>(a)</sup>

	2013-14	2014-15		2015-16	
	Outcome	Budget	September	Budget	September
Real GDP	2.9	2 1/2	2 1/2	3	3
Nominal GDP	4.1	3	2	4 3/4	5
Unemployment rate	5.9	6 1/4	6 1/4	6 1/4	6 1/4
Underlying inflation	2.8	2 1/4	2 1/4	2 1/2	2 1/2
WPI	2.6	3	2 3/4	3	3
Terms of trade	-4.2	-6 3/4	-11 3/4	-1 3/4	-1
World GDP (b)	2.9	3 3/4	3 3/4	3 3/4	3 3/4
Major trading partners GDP (b)	4.6	4 3/4	4 3/4	4 3/4	4 3/4
China (b)	7.7	7 1/4	7 1/4	7	7
United States (b)	1.9	3	3	2 3/4	2 3/4
<b>Real GDP forecast comparison</b>					
RBA		2 1/2		3	
PM&C		2 1/2		2 1/2	

Note: Text in blue indicates a forecast upgrade, while red text indicates a forecast downgrade. Forecasts for the domestic economy are based on the assumption of a trade weighted index of around 69 index points and \$US exchange rate of around 88 US cents.

(a) Real GDP, nominal GDP, the terms of trade, world GDP, major trading partner GDP, China and United States are year-average growth. Underlying inflation and the WPI are through-the-year growth to the June quarter. The unemployment rate is the rate for the June quarter.

(b) International GDP figures are calendar year average growth for 2013, 2014, 2015 and 2016.

Source: ABS cat. no. 5206.0, 5302.0, 6202.0, 6345.0, 6401.0 and Treasury.

## Outlook for the International Economy

**Table 2: Key international forecasts**

	2013	2014		2015		2016	
	Actual	Budget	Sep JIEG	Budget	Sep JIEG	Budget	Sep JIEG
China <sup>(b)</sup>	7.7	7 1/4	7 1/4	7 1/4	7 1/4	7	7
India <sup>(b)</sup>	4.7	4 3/4	5 1/4	5 1/4	5 1/4	5 1/2	5 1/2
Japan	1.5	1 1/2	1 1/2	1	1	1	3/4
United States	2.2	2 3/4	2	3	3	3	3
Euro area	-0.4	1	3/4	1 1/2	1 1/2	1 1/2	1 1/2
Other East Asia <sup>(c)</sup>	4.0	4 1/2	4	4 1/2	4 1/2	4 3/4	4 3/4
Major Trading Partners	4.6	4 3/4	4 1/2	4 3/4	4 3/4	4 3/4	4 3/4
World	3.3	3 1/2	3 1/4	3 3/4	4	3 3/4	3 3/4

Note: Text in blue indicates a forecast upgrade, while red indicates a forecast downgrade.

(a) Calculations for World, euro area and other East Asia growth rates use GDP weights based on purchasing power parity (PPP). Calculations for Major Trading Partners use export trade weights.

(b) Production-based measure of GDP.

(c) Other East Asia comprises the newly industrialised economies (NIEs) of Hong Kong, South Korea, Singapore and Taiwan and the Association of Southeast Asian Nations group of five (ASEAN-5), which comprises Indonesia, Malaysia, the Philippines, Thailand and Vietnam.

Source: National statistical publications, IMF, Thomson Reuters and Treasury.

### A disappointing start to 2014.

The global economy had a disappointing start to 2014 following negative surprises in major advanced economies. While China remains on track to meet its growth target for this year, a slowing property sector has weighed on steel demand. The United States has returned to solid growth, but euro area and Japanese recoveries are weaker than anticipated.

These setbacks have seen forecast global growth revised down to 3¼ per cent for 2014, with a slight rebound temporarily pushing forecast growth to 4 per cent for 2015. Similarly, forecast growth for Australia's major trading partners has fallen to 4½ per cent for 2014 but remains at a relatively robust 4 per cent over the remainder of the forecast period.

### A delicate balancing act in China...

In China, growth has continued to moderate as the economy matures and the benefits of past periods of reform fade.

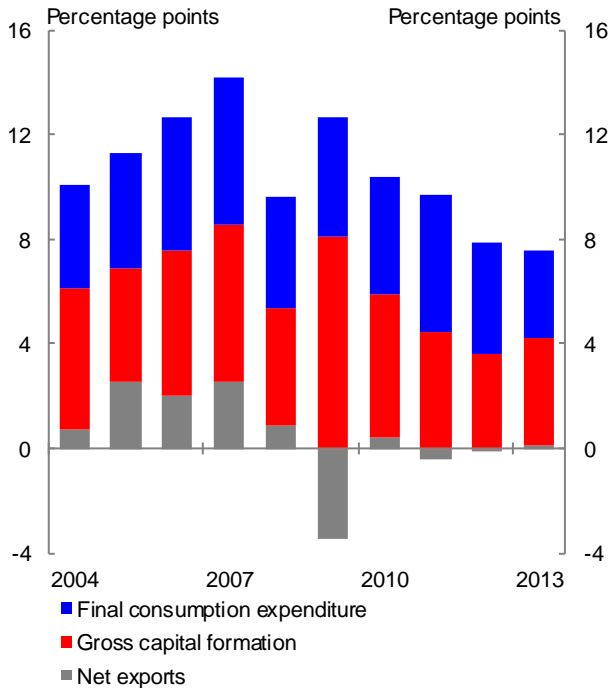
This year's moderation also reflects cyclical weakness, from a property market slowdown, deleveraging in the corporate sector and the reduction of excess capacity in industries such as steel and cement. This has been partly offset by a pick-up in external demand and

policy stimulus which are likely to ensure the growth target of 'around 7½ per cent' is met. Consistent with this, forecast growth remains unchanged at 7¼ per cent in 2014 and 2015.

The demands of short-term economic management may heighten medium-term risks to the outlook, if they also lead to a delay in rebalancing. Strong and sustained growth in China will rely on a shift from investment-led to consumption-led growth (Chart 1), with industry gradually moving up the value chain. Financial system deregulation will also be important for improving the allocation of capital as part of this process, but will need to be handled carefully in the context of the property-market led slowdown.

Despite the unchanged headline figures, the composition of Chinese growth is also relevant to the broader outlook, with the property market slowdown putting downward pressure on commodity prices. More recently doubts about Chinese and also euro area demand have seen falls in oil prices, with further downward pressure coming from producers facing increased competition from alternative energy sources in major markets such as the United States.

**Chart 1: Contributions to Chinese growth**



Source: CEIC China Database and Treasury.

Elsewhere in emerging Asia, forecast growth for India has been upgraded to 5½ per cent for 2014, with exports and investment leading a recovery from recent cyclical weakness. While the new Government has a promising reform agenda, questions around implementation make it too early to ascertain the likelihood of a growth dividend from reform.

**...while advanced economy recoveries are mixed...**

The United States is leading advanced economy recoveries, which are still expected to underpin improving global growth. The first quarter contraction was primarily due to severe winter weather and has been followed by a return to strong and broad-based growth. Household balance sheets are substantially repaired, labour market conditions are improving and business investment is increasing. The first quarter has seen forecast growth mechanically downgraded to 2 per cent in 2014, returning to 3 per cent in 2015.

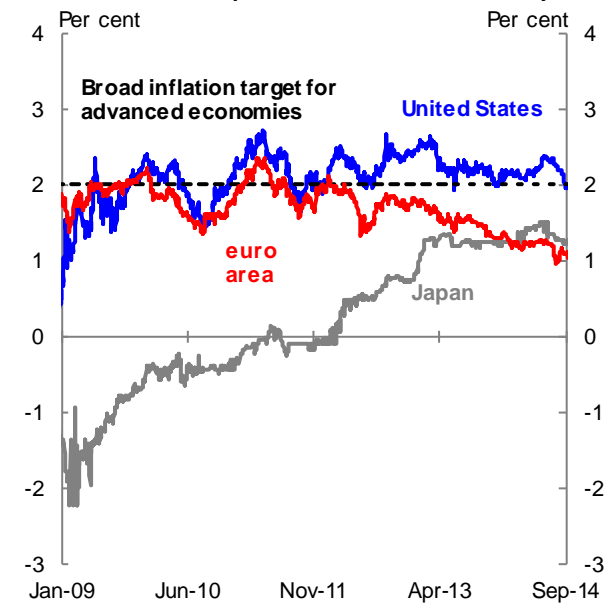
Much more concerning has been the loss of momentum in the euro area, which poses the clearest risk to the global recovery. The euro area recovery has lost momentum since Budget, with growth stagnating in the second quarter. Parts of the periphery have been recovering strongly, but they have a lot of ground to make up, and growth in Germany and France has weakened significantly. Forecast growth has been revised down to ¾ per cent in 2014 and held at

1 ½ per cent in 2015, though downside risks have increased.

The conflict between Russia and Ukraine has hurt confidence, weighing on investment and the recovery. This has highlighted the vulnerability of the euro area recovery to adverse shocks. Most worrying is the risk that continual setbacks and inadequate policy responses see the euro area enter a lost decade along the lines of Japan, with permanently lower growth. With the unemployment rate in double digits for most of the past five years and depressed business investment, the euro area has already seen damage done to its medium-term potential growth rate.

Partly reflecting prolonged economic weakness, the euro area is facing persistent low inflation and falling market inflation expectations (Chart 2). Although the European Central Bank is pursuing further easing measures to try to address this, market reactions to date suggest these could be insufficient.

**Chart 2: Inflation expectations for the next five years**



Source: Bloomberg.

In Japan, the consumption tax increase in April has made a clear read on the recovery difficult, with forecasts left at 1½ per cent for 2014 and 1 per cent for 2015. While structural reforms are more ambitious than past efforts, they are unlikely to lift potential growth rates substantially, which has seen forecast growth for 2016 downgraded to ¾ per cent.

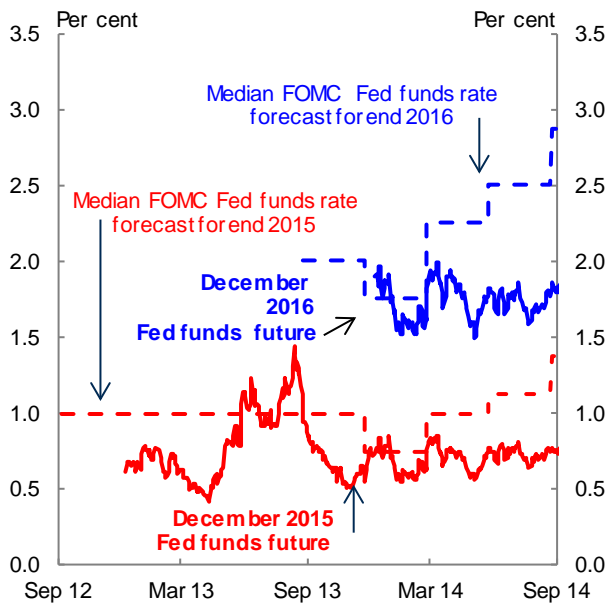
### ... and financial market risks build.

The long period of low interest rates has seen a search for yield among some market participants, with possible complacency about the future. Equity and low-grade corporate and sovereign bond valuations arguably rely on a lot of things going right with the global economy, and there are several potential triggers for a sharp readjustment.

For example, real economy disappointments in major advanced economies or China could trigger price falls for assets valued on the assumption of a more rapid return to strong and sustained growth. A sharp realignment of United States interest rate expectations is also a possibility. Chart 3 shows that markets are pricing in a longer period of low rates than the United States Federal Reserve thinks it will provide. This expectations gap will have to close.

While the systemic risks from renewed volatility and falls in asset prices would depend on the degree of leverage involved, there could be real economy implications through confidence and wealth channels. The implications for Australia depend very much on the nature of the shock.

**Chart 3: Interest rate expectations of the market versus the United States Federal Reserve**



Source: Bloomberg.

## Outlook for the Domestic Economy

### Below trend growth continues...

The outlook for real GDP continues to reflect the rebalancing of growth away from resources investment towards resources exports and the non-resources sectors.

Since Budget, resources exports have grown much more quickly than expected, largely as a result of strong growth in iron ore export volumes. However, this has been accompanied by a steeper-than-expected fall in commodity prices, which has led to a sharp fall in the terms of trade.

The fall in the terms of trade is weighing on gross national income growth. Real gross national income per capita (RGNI) is expected to fall over the four years from 2011-12 to 2015-16 (Chart 4). This would represent the longest sustained decline in real incomes since the series began in 1959-60, contributing to weaker consumption growth and subdued business investment and hiring.

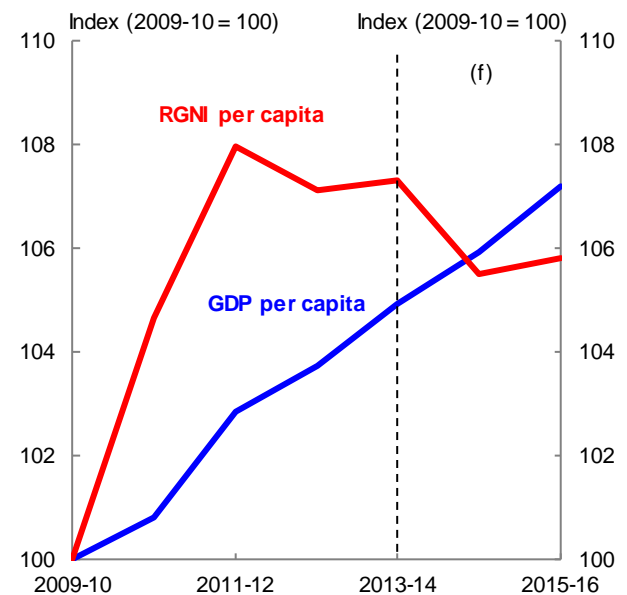
With real GDP growth remaining below trend, employment growth has continued to be soft, the unemployment rate has risen, and wage growth has remained very subdued.

Weaker wage growth and more expensive imports are expected to adversely affect consumption growth in the short term. However, weak wage growth along with historically low interest rates are expected to aid the rebalancing of growth over the medium term by improving conditions for business investment. The depreciation of the Australian dollar should also support business investment in the exporting and import-competing sectors of the economy.

The transition was never expected to be smooth and adjustments to the forecasts for September JIEG reflect this. Forecast real GDP growth remains unchanged in 2014-15 and 2015-16 at 2½ per cent and 3 per cent (Chart 5). Risks to the downside stem from possible disappointment in global growth, continuing high degrees of caution from consumers and businesses, and a larger-than-anticipated exchange rate impact on consumers' purchasing power.

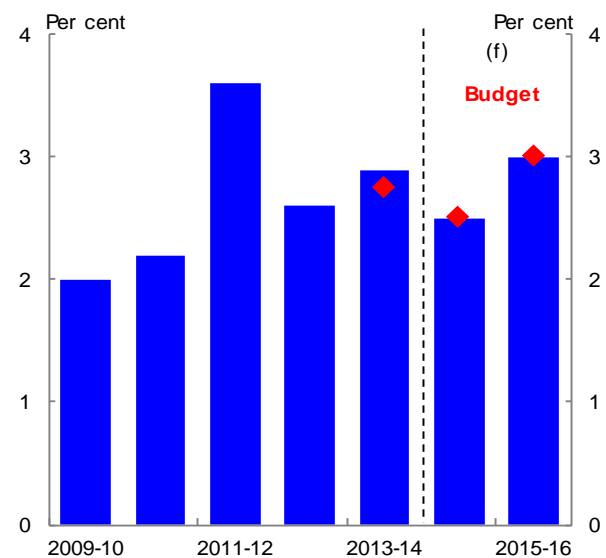
Forecast real GDP growth is lower than the consensus mean forecast in 2015, while the forecast unemployment rate is higher than the consensus mean forecast in 2015 and commodity prices are well below mean expectations (Appendix B).

**Chart 4: RGNI and GDP per capita**



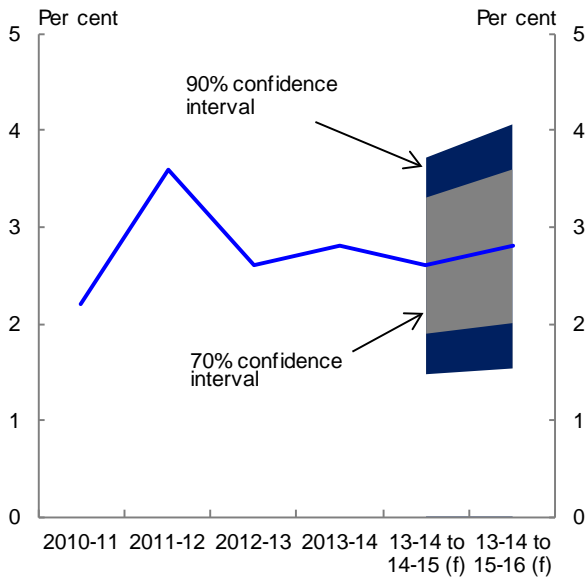
Source: ABS cat. no. 5206.0 and Treasury.

**Chart 5: Real GDP growth forecasts**



Source: ABS cat. no. 5206.0 and Treasury.

**Chart 6: Confidence intervals around forecast real GDP growth**



Note: Confidence intervals are based on Budget forecast errors. Using Budget forecast errors may understate the degree of uncertainty (see Appendix A for further information).  
Source: ABS cat. no. 5206.0, Budget papers and Treasury.

The degree of uncertainty can be estimated based on past forecast errors and presented using confidence intervals (Chart 6). The average annualised real GDP growth over the two years from 2013-14 to 2015-16 is expected to be around 2.8 per cent, with the 70 per cent confidence interval ranging from 2.0 to 3.6 per cent.

The JIEFG forecasts are based on an interest rate profile with no change in interest rates over the forecast period. This is consistent with market expectations at the time the forecasts were prepared. The forecasts also assume a US exchange rate of 88 cents and a trade weighted index of around 69 index points over the forecast period.

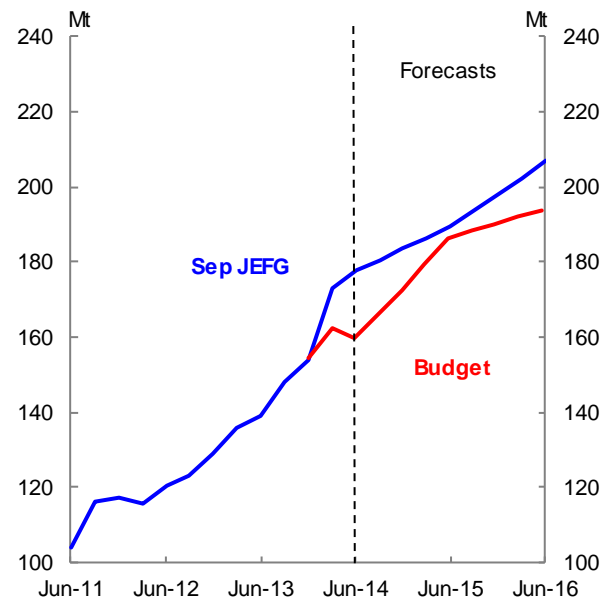
**... underpinned by a sharper fall in the terms of trade...**

Iron ore export volumes grew by 23.7 per cent in 2013-14, surpassing our forecast of 18.3 per cent (Chart 7). The greater than anticipated supply expansion was driven by the three major miners completing infrastructure faster than expected and ramping up production. With further upgrades to production guidance by a number of major miners, we consider that the strength in supply will be sustained, leading to significant upgrades to our iron ore exports forecasts.

Increased production driven by Australian suppliers has led to sharp falls in iron ore prices in 2014; they are now around 26 per cent lower than at the Budget (Chart 8). The fall has been compounded by concerns about Chinese demand in light of slowing in the Chinese property market and infrastructure investment.

Coal exports also saw a stronger than forecast 2013-14, although growth slowed in the second half of the year. Our outlook is for weaker growth ahead, with the expected closure of some high cost operations. Prices have also remained weak, reflecting strong supply growth and somewhat weaker demand for steel and energy.

**Chart 7: Comparison of Budget and September JIEFG iron ore volumes.**



Source: ABS cat. no. 5302.0 and Treasury.

**Chart 8. Comparison of iron ore price forecasts and current spot**

Chart has been removed as it contains subscription information.

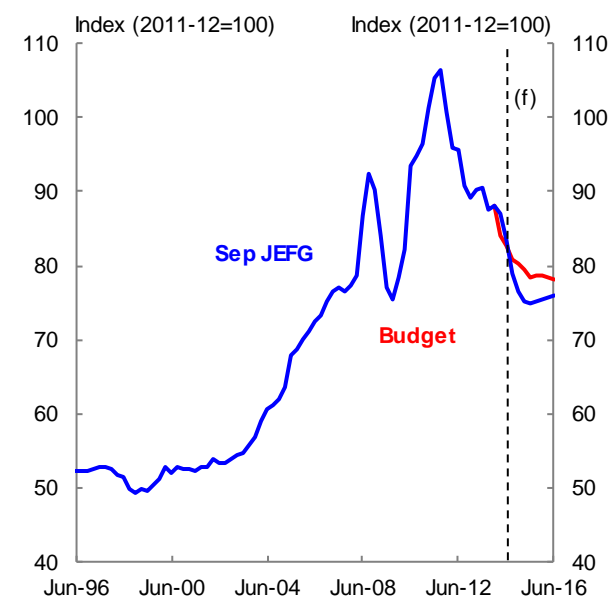
The fall in bulk commodity prices and the expectation that they will only recover a little from their current spot price have led to a downgrade in the terms of trade growth forecast for 2014-15 from -6¼ per cent to -11¼ per cent (Chart 9).

**... a fall in the exchange rate...**

Currency falls for major commodity producers including Australia have occurred as a result of US dollar strength, continued weakness in the euro area and slowing industrial production in China. Since 1 September, the exchange rate has fallen by 6.5 US cents (a fall of 6.9 per cent), to its lowest level since July 2010. The trade-weighted index has also fallen by 3.4 index points (a fall of 4.7 per cent), to its lowest point since February 2014 (Chart 10). The forecasts now assume an exchange rate of 88 cents.

A lower dollar will adversely affect consumption growth and profit margins of value-add businesses with a high import content. On the other hand, it will soften the impact on mining revenue from falling commodity prices, and relieve some of the pressure on manufacturing and services exporters and import competing producers. Overall, it is expected to support growth rebalancing over the medium term.

**Chart 9. Comparison of forecasts of the terms of trade**

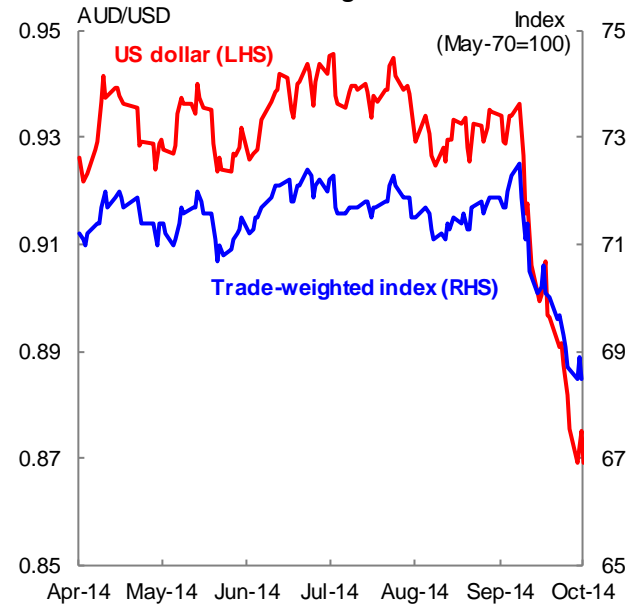


Source: ABS cat. no. 5206.0 and Treasury

Increases in global oil supply and lower demand have also resulted in a 13 per cent fall in the oil price. A sustained lower oil price is also expected to eventually feed through into lower prices for Australian LNG exports, which are contractually linked to oil prices. This will become particularly important as Australian LNG export capacity starts to come online over the forecast period, to become our second largest export.

LNG prices are expected to decline slightly through 2015-16 from their June 2014 high and remain around that level over the forecast period. LNG volume exports are expected to grow considerably over the forecast period as new projects come online.

**Chart 10: The exchange rate and TWI**



Source: RBA



**... and weaker employment and wage growth.**

Notwithstanding the uncertainty around recent employment outcomes, below trend real GDP growth continues to mean that employment growth is insufficient to keep up with population growth. This means that there has been an increase in spare capacity in the labour market since Budget.

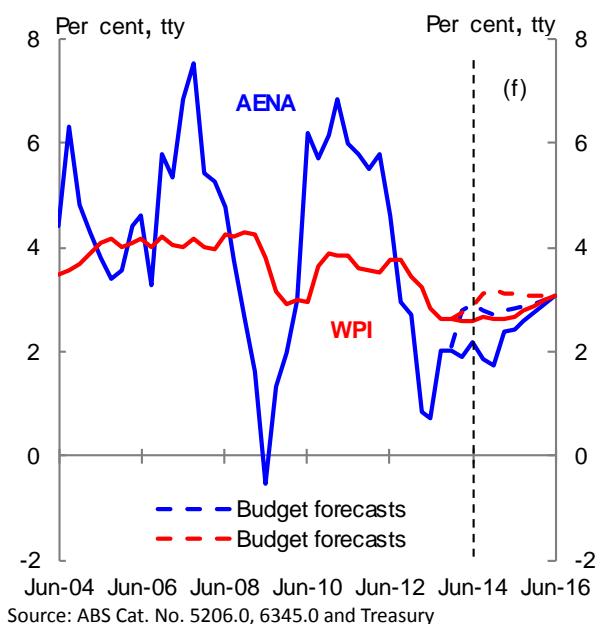
The mining sector – and indeed all sectors – have had a strong focus on cost containment, which is further weighing on employment growth.

The forecasts for employment growth have been downgraded to 1¼ per cent in 2014-15, and remain unchanged at 1½ per cent in 2015-16.

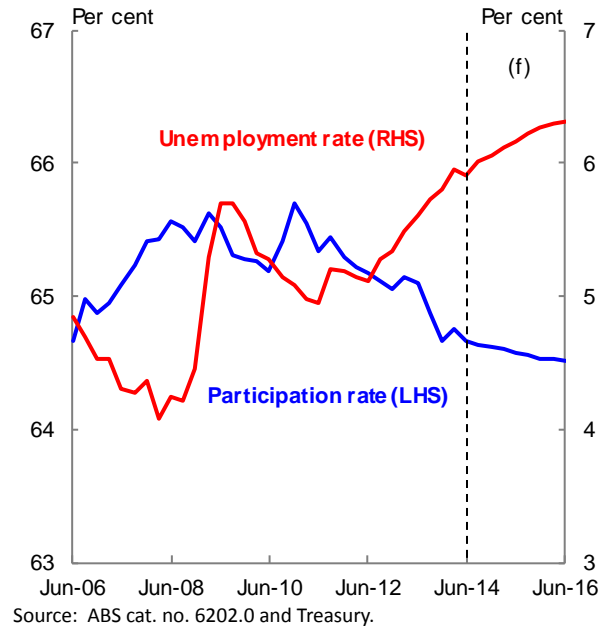
Wage growth has eased considerably, consistent with the spare capacity in the labour market. The Wage Price Index is growing at its equal lowest rate since the series began in the late 1990s. Forecast growth in 2014-15 has been downgraded to 2¼ per cent, while average weekly earnings (national accounts basis) growth has been downgraded to 2½ per cent (Chart 11).

The forecast for the participation rate remains unchanged. The unemployment rate forecast is also unchanged at 6¼ per cent in the June quarters of 2014-15 and 2015-16 (Chart 12).

**Chart 11: Wage Price Index (WPI) and Average Weekly Earnings on a National Accounts basis (AENA)**



**Chart 12: Unemployment and participation rates**



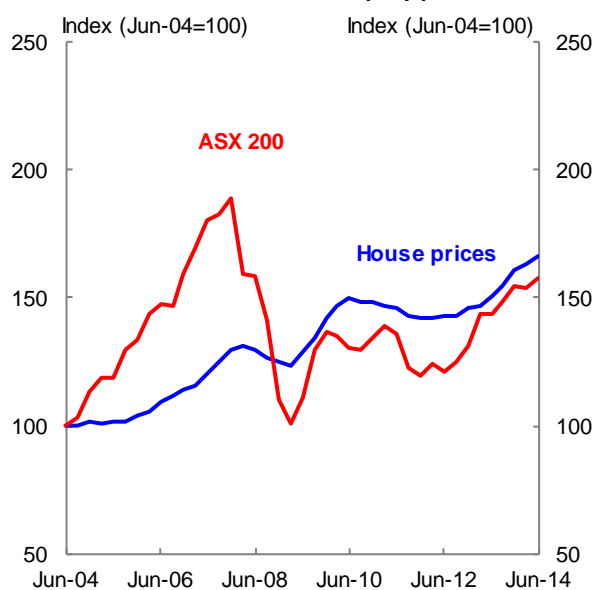
**Consumption being weighed down by reduced incomes...**

Household consumption growth has slowed in 2014, partly due to slow turnover of winter stock following unseasonably warm winter weather and ongoing consumer caution. Consumption has nevertheless been supported by rising household wealth, particularly from continued house price growth (Chart 13). The fall in oil prices, leading to cheaper fuel costs, will also benefit domestic consumers by freeing up income to spend on other goods and services.

Still, more expensive imports and weaker wage growth will likely flow through to weaker growth in real household disposable income, and this is likely to constrain consumption growth.

Our forecasts for household consumption growth has been downgraded to 2¼ per cent in 2014-15 and 3 per cent in 2015-16. Stronger balance sheets should also provide households with the capacity to smooth consumption through a decline in the household saving ratio to 7½ per cent in 2015-16.

**Chart 13: House and equity prices**



### ...and weak public final demand...

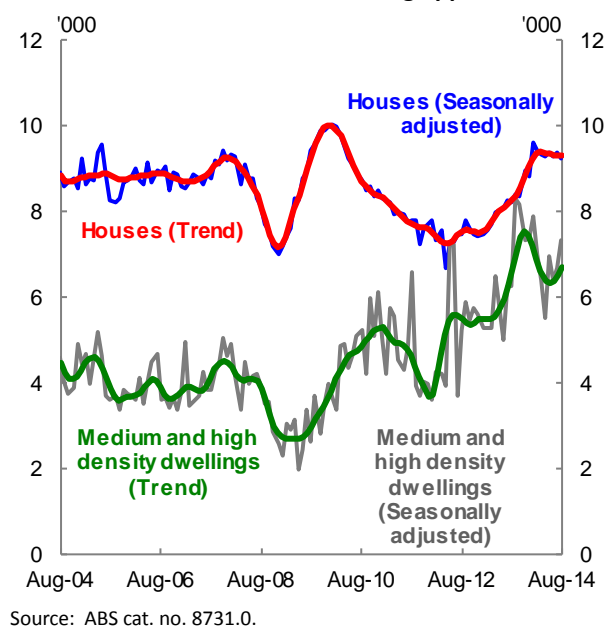
Public final demand growth is forecast to remain well below average, as all levels of government continue to pursue fiscal consolidation. These forecasts are based on a direct translation of the fiscal settings outlined in the latest available state budgets.

With state budgets indicating a bring-forward of some state investment, our new public demand growth forecast has been upgraded to 2 per cent in 2014-15 and downgraded to ½ per cent in 2015-16.

### ... are being balanced by stronger dwelling investment, ...

New dwelling investment grew by 5.0 per cent in 2013-14, and leading indicators suggest that dwelling construction activity will remain strong in the near term (Chart 14). Compared to Budget, forecast growth in dwelling investment has been brought forward to reflect recent data, with an upgrade in 2014-15 to 8½ per cent, and a reduction to 5 per cent in 2015-16.

**Chart 14: Residential building approvals**



### ... an improved outlook for non-mining business investment...

Business investment outcomes in 2013-14 were weaker than expected, with machinery and equipment investment falling 12.4 per cent, new engineering construction falling 4.3 per cent and new buildings investment increasing 3.0 per cent. We have passed the peak in the investment stage of the mining boom and there is still a way to fall to return to average historical investment levels as existing investment winds up. Resources investment is expected to fall a little more sharply in 2014-15 and 2015-16, with mining companies responding to lower commodity prices by cutting back their investment plans (Chart 15).

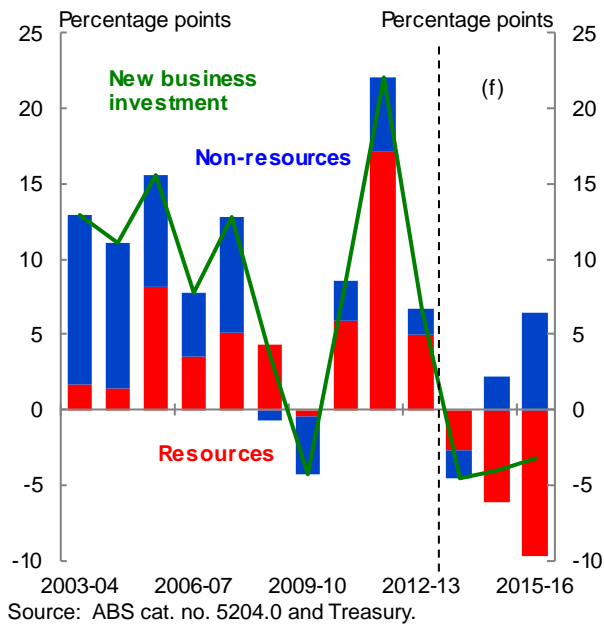
However, the non-resources investment outlook is showing some encouraging signs. Capital expenditure intentions for the non-mining sector in 2014-15 and capacity utilisation have improved a little, and along with expectations of improved demand have driven an increase in forecast new business investment in 2014-15.

Investment in new machinery and equipment and new buildings is expected to increase in 2015-16, following the earlier period of restrained investment, as firms respond to the depreciation in the exchange rate, weak wage growth and improving demand.

However, the scale and timing of the anticipated recovery in non-resources business investment remains a key source of uncertainty for the outlook. Business liaison continues to suggest that the non-resources sector remains cautious, with firms reluctant to replace capital until they have a clearer sense that demand is improving.

Overall, new business investment is forecast to decline by 4 per cent in 2014-15 and 3½ per cent in 2015-16.

**Chart 15: Contributions to growth in new business investment, resources and non-resources sectors**



**...and a consistent contribution from net exports.**

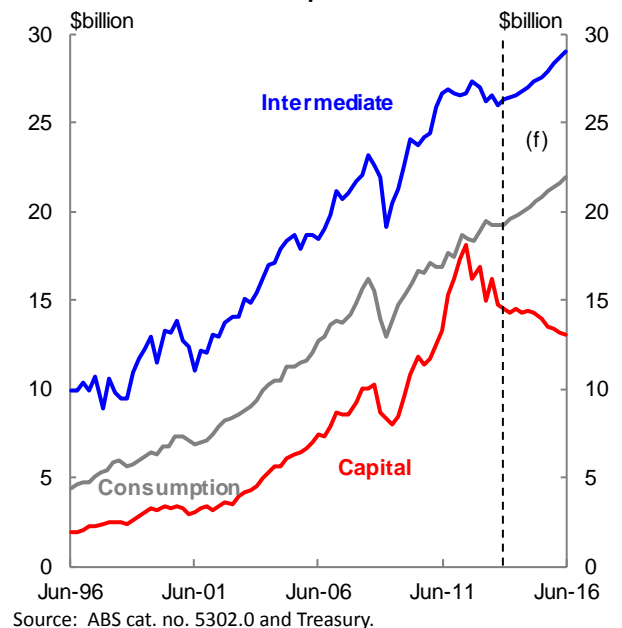
The forecast contribution to real GDP growth from net exports remains unchanged at 1 percentage point in 2014-15 and 1¼ percentage points in 2015-16. This reflects downgrades in both export and import volumes.

Export growth in 2013-14 was higher than expected due to strong commodity volumes, with net exports contributing 2.0 percentage points to growth. Exporters are expected to benefit from the depreciation in the exchange rate, and this has led to an upgrade to forecast services exports growth in both 2014-15 and 2015-16. However, growth in export volumes has been downgraded overall, to 4½ per cent in 2014-15 and 6½ per cent in 2015-16, because much of the expected commodity volumes growth occurred in 2013-14.

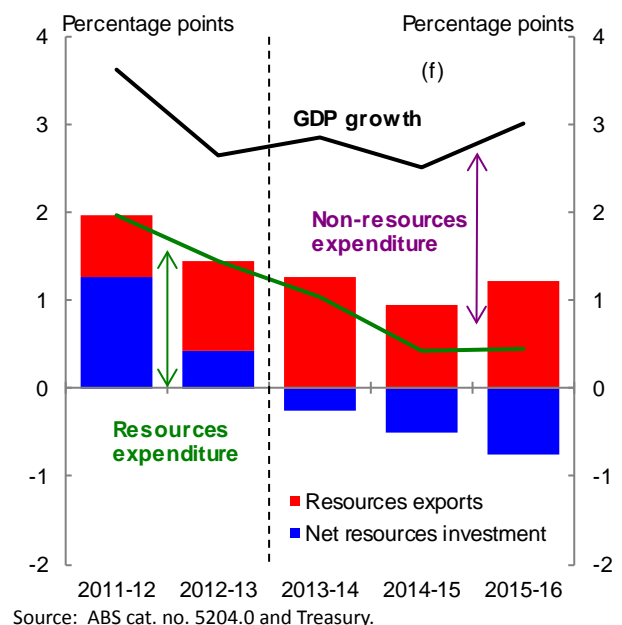
Import growth is expected to remain subdued, with consumers progressively substituting away from imported goods in response to the depreciation in the exchange rate. Capital goods imports are expected to fall sharply in response to the fall in mining investment, as construction on LNG projects winds down (Chart 16). The forecast for imports growth has been downgraded to 1 per cent in both 2014-15 and 2015-16.

Overall, the resources sector is forecast to continue contributing to growth. However, with the decline in resources investment, this contribution to growth will be smaller than in previous years despite the benefit of higher export volumes (Chart 17).

**Chart 16: Import volumes**



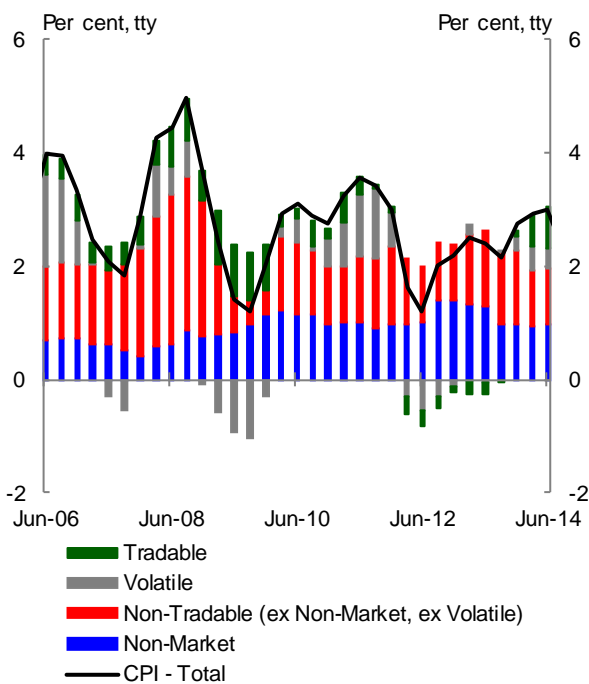
**Chart 17: Contributions to GDP growth**



**Inflation is steady, reflecting a balance between non-tradable and tradable goods...**

The June quarter CPI was weaker than expected, at 0.5 per cent and 3.0 per cent through the year. Non-tradable inflation is now at its weakest through-the-year growth rate since the global financial crisis. The weakness in the June quarter (Chart 18) largely reflected weakness in the prices of domestic holidays and electricity. Tradables inflation strengthened slightly in through the year terms, primarily due to the prices of international holiday travel and tobacco. However, tradables inflation is not contributing to quarterly inflation as strongly as it was in the second half of 2013, when the dollar depreciated to around 0.95 cents.

**Chart 18: Contributions to annual CPI outcomes**



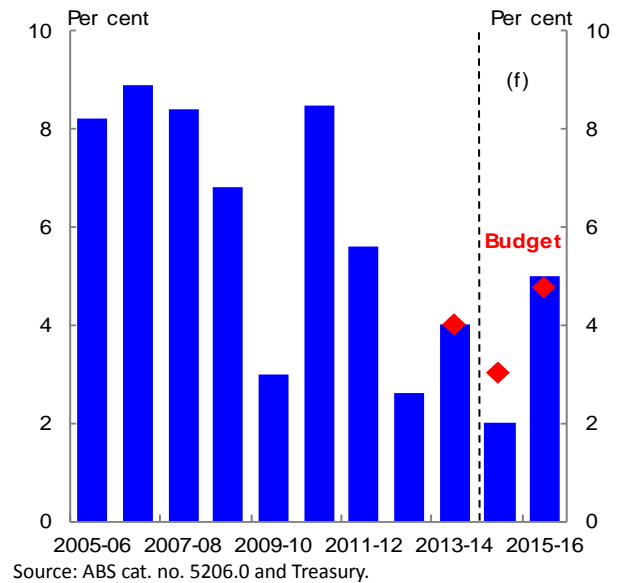
Source: ABS cat. no. 6401.0 and Treasury.

Similar to Budget, the outlook for inflation is contained (consistent with weak growth in unit labour costs), notwithstanding some upwards pressure from some 2013-14 Budget measures. Both underlying and headline inflation are forecast to be the same as at Budget.

**...with the lower terms of trade driving below trend nominal GDP growth.**

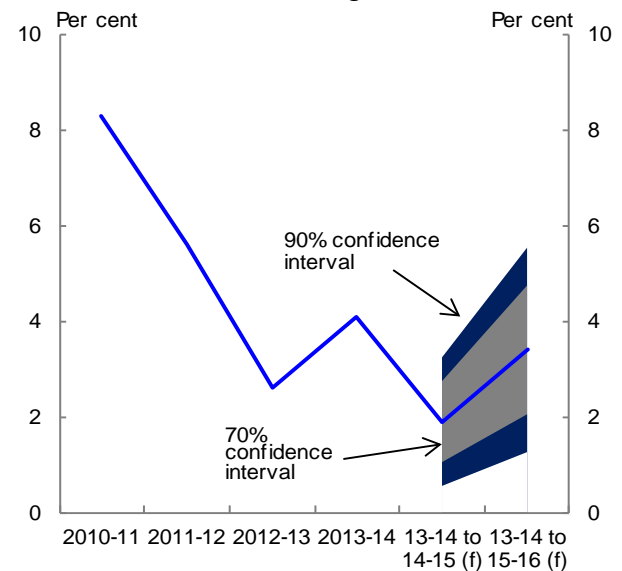
Nominal GDP growth in 2014-15 is forecast to grow at 2 per cent, substantially weaker than forecast at Budget, reflecting the downgrade to the terms of trade (Chart 19). Overall, nominal GDP growth is expected to remain weak, reflecting continued declines in the terms of trade and weak wage growth.

**Chart 19: Nominal GDP growth**



Source: ABS cat. no. 5206.0 and Treasury.

**Chart 20: Confidence intervals around forecast nominal GDP growth**



Note: Confidence intervals are based on Budget forecast errors. Using Budget forecast errors may understate the degree of uncertainty (see Appendix A for further information).

Source: ABS cat. no. 5206.0, Budget papers and Treasury.

The uncertainty around nominal GDP growth forecasts is larger than around real GDP growth forecasts, reflecting the compounding nature of two sources of uncertainty: the outlook for real GDP and the outlook for prices or the GDP deflator (Chart 20). The average annualised nominal GDP growth over the two years from 2013-14 to 2015-16 is expected to be 3.4 per cent, with the 70 per cent confidence interval ranging from 2.1 to 4.7 per cent.

### **Downside risks, both new and old, remain.**

Risks to the forecasts are tilted to the downside. Internationally, a number of risks exist. A stronger than anticipated moderation in Chinese growth could occur. A sustained loss of momentum in key euro area economies, or a shock to the euro area could cause disinflation to turn into deflation. The normalisation of US monetary policy also has the potential to cause bouts of global financial market volatility and expose pre-existing vulnerabilities in emerging markets. In addition, the recovery in the United States could prove more modest than anticipated.

Geopolitical risks have also emerged over the past year, though the current very low levels of volatility in financial markets suggest that other factors are insulating markets from those risks at this stage.

Domestically, the forecasts assume that the recovery now underway in dwelling investment, along with a lower exchange rate, weak wage growth and continuing accommodative monetary policy, will stimulate growth in the non-resources sectors of the economy. However growth in business investment could continue to be anaemic if companies wait for stronger signs of improving demand before committing funds to new projects and hiring new staff. Similarly, consumers might continue to exhibit caution in spending because of ongoing concerns about their employment prospects and the health of the economy, despite large accumulated household savings.

The depreciation of the Australian dollar presents both upside and downside risks. Both consumer spending and business investment could be more substantially affected by the rising price of imports than anticipated in the forecasts, particularly if firms and consumers find that their ability to substitute away from imported goods is limited. On the other hand, a further depreciation in the exchange rate could lead to stronger non-mining investment outcomes in export-oriented and import-competing sectors of the economy, and a more rapid recovery.

**Table 3: Domestic economy forecasts (a)**

	Outcomes (b)	Forecasts	
	2013-14	2014-15	2015-16
<b>Panel A - Demand and output(c)</b>			
Household consumption	2.5	2 3/4	3
Private investment			
Dwellings	5.0	8 1/2	5
Total business investment(d)	-4.6	-4	-3 1/2
Non-dwelling construction(d)	-2.2	-9	-13
Machinery and equipment(d)	-12.4	1/2	8 1/2
Private final demand(d)	1.1	1 1/2	2
Public final demand(d)	1.5	2	1/2
Total final demand	1.2	1 3/4	1 3/4
Change in inventories(e)	-0.4	0	0
Gross national expenditure	0.8	1 3/4	1 3/4
Exports of goods and services	6.8	4 1/2	6 1/2
Imports of goods and services	-2.3	1	1
Net exports(e)	2.0	1	1 1/4
<b>Real gross domestic product</b>	<b>2.9</b>	<b>2 1/2</b>	<b>3</b>
Non-farm product	2.9	2 3/4	3
Farm product	2.1	-5	2
Nominal gross domestic product	4.1	2	5
<b>Panel B - Other selected economic measures</b>			
External accounts			
Terms of trade	-4.2	-11 3/4	-1
Current account balance			
\$billion	-47.1	-75 3/4	-72 1/2
Percentage of GDP	-3.0	-4 3/4	-4 1/4
Labour market			
Employment (labour force survey basis)(f)	0.9	1 1/4	1 1/2
Unemployment rate (per cent)(g)	5.9	6 1/4	6 1/4
Participation rate (per cent)(g)	64.7	64 1/2	64 1/2
Prices and wages			
Consumer Price Index(h)			
- headline	3.0	2 1/4	2 1/2
- underlying	2.8	2 1/4	2 1/2
Gross non-farm product deflator	1.0	- 3/4	2
Wage Price Index(f)	2.6	2 3/4	3

(a) Percentage change on preceding year unless otherwise indicated.

(b) Calculated using original data unless otherwise indicated.

(c) Chain volume measures except for nominal gross domestic product which is in current prices.

(d) Excluding second hand asset sales from the public sector to the private sector.

(e) Percentage point contribution to growth in GDP.

(f) Seasonally adjusted, through the year growth rate to the June quarter.

(g) Seasonally adjusted rate in the June quarter.

(h) Through the year growth rate to the June quarter.

Note: The forecasts for the domestic economy are based on several technical assumptions. The exchange rate is assumed to remain around its recent average level — a trade weighted index of around 69 index points and a \$US exchange rate of around 88 US cents. Interest rates are assumed to move broadly in line with market expectations. World oil prices (Malaysian Tapis) are assumed to remain around US\$99 per barrel. The farm sector forecasts are based on an assumption of average seasonal conditions in 2014-15.

Source: ABS cat. no. 5206.0, 5302.0, 6202.0, 6345.0, 6401.0, unpublished ABS data and Treasury.

## Appendix A – Confidence intervals

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In the 2014-15 Budget, confidence intervals around two key economic variables, real and nominal GDP, were reported to reflect the forecast uncertainty of Treasury's estimates. This practice was first introduced in the 2013 PEFO to help convey to readers a better appreciation of the risks associated with the economic outlook and also improve the credibility and transparency of the forecasting process.

The degree of uncertainty around forecasts can be estimated based on past forecast errors. For GDP forecasts, confidence intervals can be presented around forecasts of annual growth rates or average annualised growth rates. While both measures have merit, providing a reasonable forecast of the level of GDP is important for fiscal variables. For this purpose, the average annualised growth rate is a better summary statistic, since the level of GDP depends on cumulative growth over time. The average annualised growth rate is reported as it captures the effects of cumulative growth, while still giving a sense of what the annual growth rate would be.

For a hypothetical example, if GDP is forecast to grow by 1 per cent in one year and 4 per cent in the next, the level of GDP will be forecast to be roughly 5 per cent higher after two years. This is better summarised by the 2½ per cent average annualised growth rate over the two years than by the two separate annual growth rates.

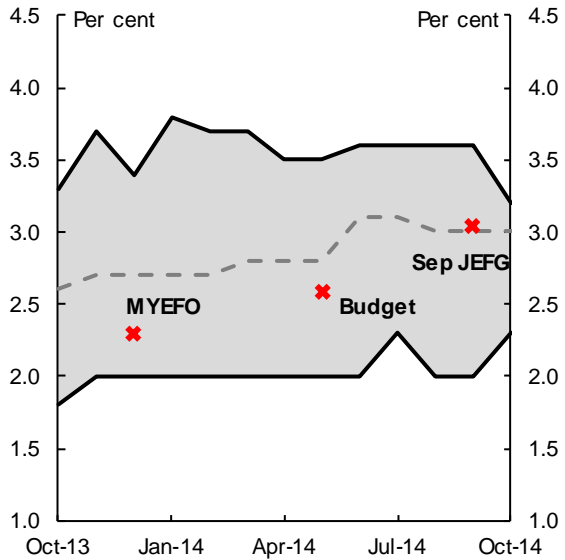
The confidence intervals in the September JFIG report are derived from forecast errors based on Budget forecasts from the 1998-99 Budget onwards, with outcomes based on the June quarter 2014 National Accounts. Forecast errors are calculated using the root mean square error of forecast percentage growth rates. The confidence intervals may understate the degree of uncertainty around the September JFIG forecasts, particularly for the first forecast year (2014-15). This is because the interval is based on Budget forecast errors for 2013-14. There was more information available at Budget to make forecasts for 2013-14 than there is at September JFIG to make 2014-15 forecasts.

In the charts, the central line shows the outcomes and September JFIG forecasts with annual growth reported for outcomes and annualised average growth rates from 2013-14 reported from 2014-15 onwards.

## Appendix B – Forecast comparison

Real GDP forecasts are well below the mean consensus in 2015,...

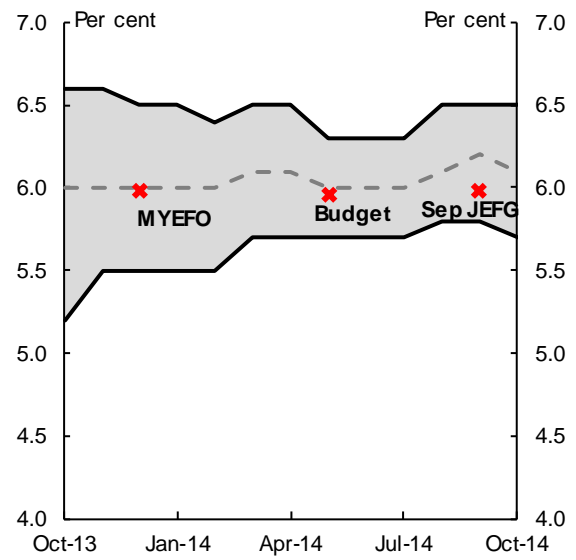
**Chart 1: Consensus real GDP forecasts for calendar year 2014**



Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

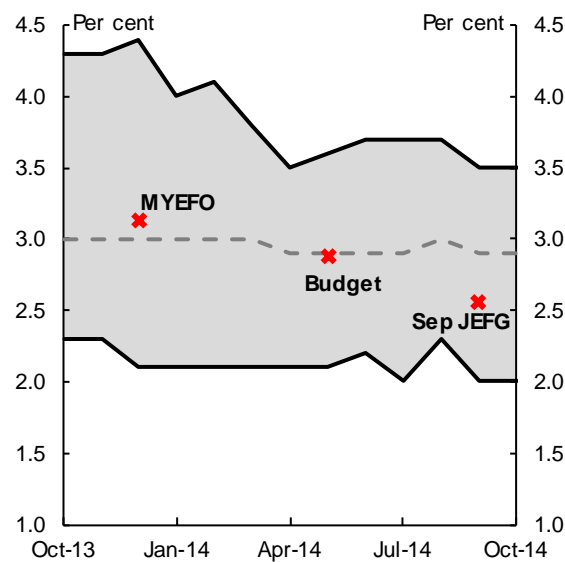
... the forecast unemployment rate is above the mean consensus in 2015...

**Chart 3: Consensus unemployment rate forecasts for calendar year 2014**



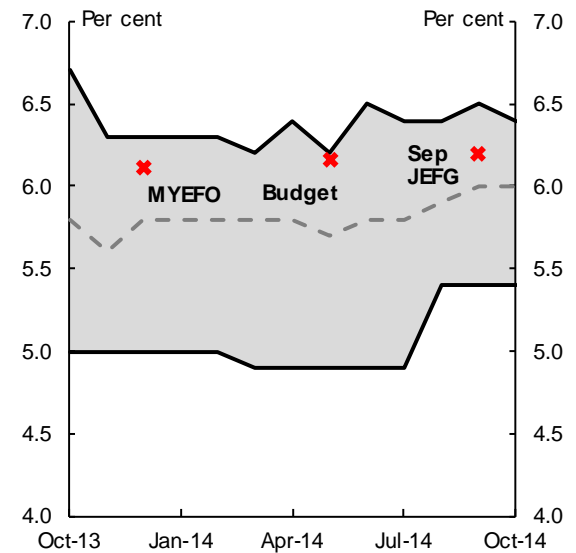
Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

**Chart 2: Consensus real GDP forecasts for calendar year 2015**



Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

**Chart 4: Consensus unemployment rate forecasts for calendar year 2015**

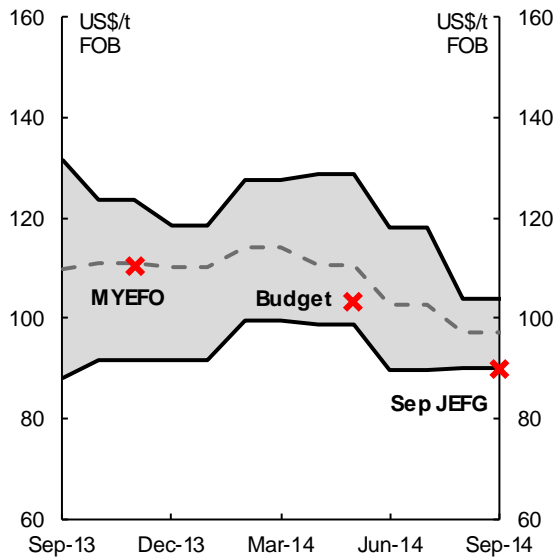


Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.



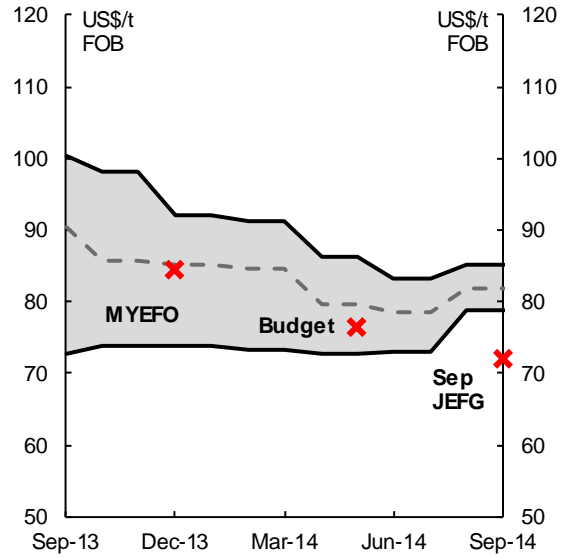
...while bulk commodity price forecasts are at the lower end of consensus.

**Chart 5: Iron ore price<sup>3</sup> forecasts for calendar year 2014**



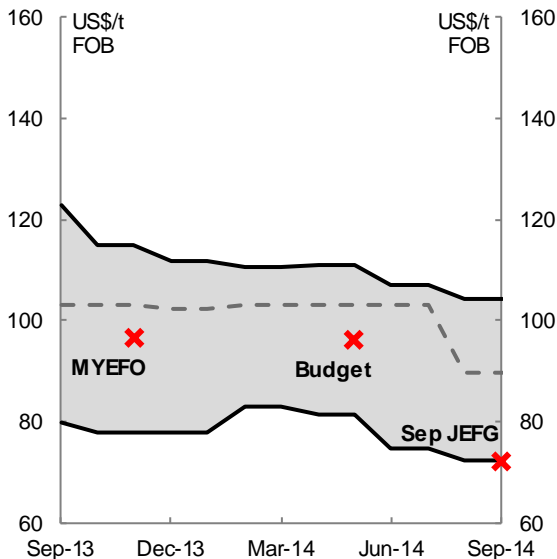
Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics<sup>4</sup> and Treasury.

**Chart 7: Thermal coal price forecasts for calendar year 2014**



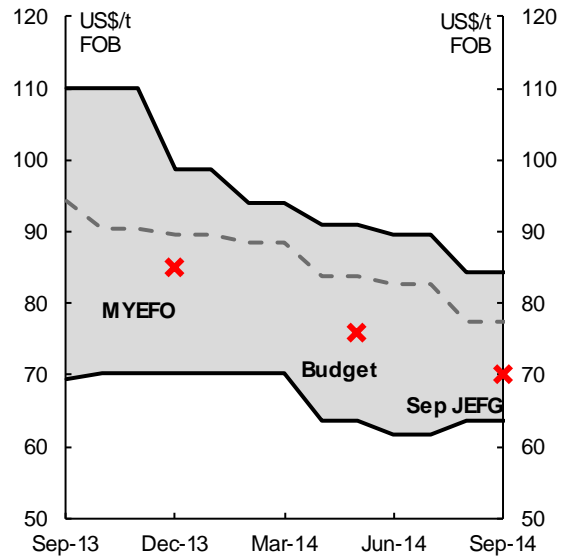
Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

**Chart 6: Iron ore price forecasts for calendar year 2015<sup>5</sup>**



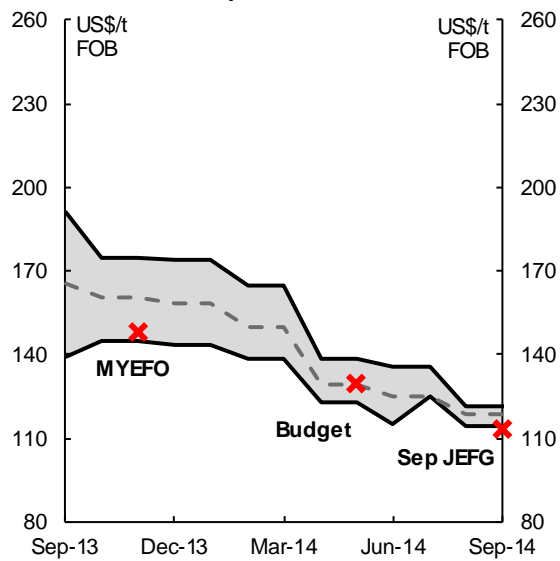
Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

**Chart 8: Thermal coal price forecasts for calendar year 2015**



Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

**Chart 9: Metallurgical coal price forecasts for calendar year 2014**



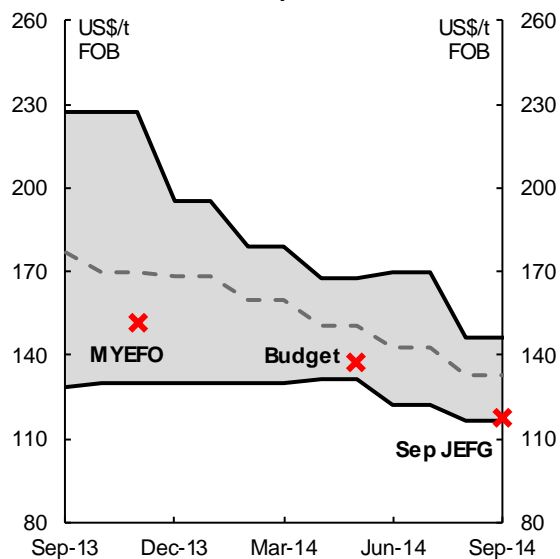
Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.

<sup>3</sup> Prices are reported on a free on board (FOB) basis.

<sup>4</sup> Consensus Economics surveys commodity price forecasters every two months.

<sup>5</sup> Treasury forecasts of commodity prices for Budget and MYEFO represent average forecasts to June 2015.

**Chart 10: Metallurgical coal price forecasts for calendar year 2015**



Note: Top and bottom lines represent range of individual forecasts. Centre line represents consensus mean forecast.  
Source: Consensus Economics and Treasury.