# ECONOMIC OUTLOOK FOR 2011-12 AND 2012-13 SEPTEMBER 2011

(THIS REPORT INCORPORATES DOMESTIC AND INTERNATIONAL DATA RELEASED UP TO 23 SEPTEMBER 2011)

Overview	3
Outlook for the domestic economy	8
Household consumption	
Dwelling investment	
Business investment	
Public final demand	11
Exports, imports and the current account balance	12
Employment, wages and inflation	13
Outlook for the international economy	16
World outlook and risks	16
Country summaries	18
Attachment A: Forecast Growth in Nominal GDP	21

# **OVERVIEW**

The economic outlook has weakened since the June forecasting round. International growth prospects have deteriorated and the risks to global financial stability from the European sovereign debt crisis have intensified. Weak activity in Europe and the US has become more entrenched and - even under the benign scenario underpinning the central forecasts, which are predicated on an orderly resolution to the European sovereign debt crisis - it is expected that there will be an extended period of weak global growth. This is notwithstanding solid forecast growth in the large emerging market economies, underpinned by continued strong growth in domestic demand. The deterioration in the external environment is affecting the Australian economy through financial market and confidence channels, with weaker trading partner growth also expected to reduce demand for Australia's exports. However, even before the recent international turmoil, it was becoming increasingly evident that the sustained high exchange rate was having a greater impact on economic activity than previously anticipated, prompting a growing number of firms in the trade-exposed manufacturing and services sectors to re-evaluate their business models. In contrast, industries connected to the resources sector generally continue to experience very strong conditions. Solid growth in emerging Asia is expected to underpin continued strong demand and high prices for Australia's bulk commodity exports. Therefore, the outlook for mining production and investment currently remains intact, with no evidence as yet that the deterioration in international conditions has dented the record pipeline of resources investment.

This combination of international and domestic factors has led to substantial downward revisions to forecast growth in Australia's real GDP and employment and an upward revision in the expected unemployment rate. Notwithstanding these revisions, the risks to the outlook remain firmly on the downside. Events in Europe are evolving rapidly in the context of an already fragile global economy, presenting a significant risk that the economic outlook could deteriorate quickly and require further substantial downward revisions to the international and domestic growth forecasts. In this environment, Australia's terms of trade could also decline more sharply than currently forecast.

Table 1 presents the key domestic forecasts. The June and September JEFG forecasts shown in Table 1 are inclusive of the Government's carbon price policy, consistent with the economic modelling presented in *Strong growth, low pollution: modelling a carbon price*. However, the 2011-12 Budget forecasts did not include the impact of the carbon price.

**Table 1: Key Domestic Forecasts** 

	2010-11		2011-12		2012-13			
	Outcome (a)	Budget	June	Sept	Budget	June	Sept	
Real GDP (b)	1.8	4	3 3/4	3 1/4	3 3/4	3 1/4	3	
Nominal GDP (b)	8.3	6 1/4	6 3/4	6 1/2	5 3/4	5 1/2	4 1/2	
Unemployment rate (c)	4.9	4 3/4	4 3/4	5 1/2	4 1/2	5	5 3/4	
Employment (d)	2.2	1 3/4	1 1/2	1	1 3/4	1 1/2	1 1/4	
CPI (d)	3.6	2 3/4	2 3/4	2 1/2	3	3 1/2	3 1/4	
Underlying inflation (d)	2.7	2 3/4	2 3/4	2 1/2	3	3	2 3/4	
WPI (d)	3.8	4	4	3 3/4	4 1/4	4 3/4	3 3/4	
Terms of trade (b)	20.7	- 1/4	1 1/4	3	-3	-6	-6 3/4	

<sup>(</sup>a) Calculated using original data except for employment, the unemployment rate and WPI.

The global economic outlook has deteriorated sharply, with some of the downside risks identified in the June round crystalizing over recent months. The euro area sovereign debt crisis has entered a

<sup>(</sup>b) Year average.

<sup>(</sup>c) June quarter.

<sup>(</sup>d) Through-the-year grow th rate to the June quarter.

dangerous new phase. Markets are pricing in a high probability that Greece will default on its sovereign debts, Spanish and Italian government bond yields have come under increased pressure and there are growing concerns about the credit worthiness of financial institutions in the euro area core with significant exposures to the euro area periphery. This has coincided with weaker growth in the United States in the first half of 2011 and Japan's slower-than-anticipated recovery from the March tsunami, further weighing on global growth prospects at a time when monetary and fiscal policy are significantly constrained. The risk of a US government default due to a failure to lift the debt ceiling has been at least deferred, although it is yet to be seen whether a credible medium-term fiscal consolidation plan can be agreed. In the presence of both political and practical obstacles, markets have become increasingly sceptical about the ability of policymakers in the major advanced countries to prevent or respond to further adverse developments, contributing to market volatility and the general sense of unease. In our region, while the weakness in the major advanced economies is expected to have negative flow-on effects to trade-exposed emerging market economies, growth in emerging Asia is forecast to remain solid, underpinned by domestic demand.

Global growth forecasts for 2011 have been downgraded to  $3\frac{3}{4}$  per cent, reflecting weaker-than-expected outcomes in the United States and a more subdued outlook for the major advanced economies, with the euro zone expected to be in technical recession in the second half of the year. This weakness is expected to carry over into 2012 and 2013, with global growth forecasts downgraded to  $3\frac{3}{4}$  per cent and  $4\frac{1}{4}$  per cent respectively. The risks to these forecasts are firmly on the downside, with the combination of financial market fragility, low growth and constraints to both monetary and fiscal policy in the major advanced economies giving rise to significant vulnerability.

After contracting in the March quarter, the Australian economy grew 1.2 per cent in the June quarter. Domestic final demand contributed a solid 0.8 percentage points to real GDP growth in the June quarter, underpinned by mining investment and household consumption, with the initial recovery from the natural disasters in early 2011 also adding to real GDP growth. Iron ore and thermal coal production have now returned to pre-flood levels; however, the dewatering of Queensland metallurgical coal mines has been more protracted. Recent mining company announcements suggest that metallurgical coal production will not return to pre-flood levels until the end of 2011, leading QR National to raise their estimates of total coal production losses to 43 million tonnes (up from 37 million tonnes at June). The rebound from the natural disasters is expected to add ½ a percentage point to real GDP growth in 2011-12, unchanged from June.

Conditions have weakened across most sectors of the Australian economy since the June quarter. The deterioration in global sentiment is being transmitted to the Australian economy through financial markets, with lower global growth expectations, heightened uncertainty, and increased risk aversion combining to drive down financial asset prices over recent months. The effects are also being seen in sharp declines in consumer sentiment and business confidence, with global uncertainty exacerbating existing pressures on the non-mining economy. According to the latest NAB Monthly Business Survey, business confidence fell in August to its lowest level since April 2009. Labour market conditions outside of the mining and mining-related sectors have softened, with employment stagnant and the unemployment rate starting to trend up; and house prices have continued to fall, detracting from household wealth and weighing on consumer spending decisions. The exchange rate also remains well above the post-float average, weighing on the competitiveness of trade-exposed industries, particularly manufacturing, tourism and education. If sustained, the recent depreciation of the Australia dollar may provide some relief to Australian exporters. However, the exchange rate is still well above the post-float average, with any benefits from the recent decline likely to be overshadowed by the fall in external demand associated with the weaker global economic outlook.

In contrast, industries exposed to the resources sector continue to experience very strong conditions. With global prices of Australia's key commodities remaining high and mining investment intentions at record levels, growth in mining investment and exports are expected to be the key drivers of

economic growth over the next two years. Forecast growth in mining investment has increased since June, with the value of mining investment scheduled to take place over the forecast horizon rising by \$10.3 billion. This has included positive final investment decisions on the Wheatstone LNG project (\$29 billion) and the Australia Pacific LNG project (US\$14 billion), as well as the announcement of preliminary work on the Arrow LNG project (\$15 billion). With significant investment being undertaken to expand mine and transport infrastructure, export capacity is expected to grow strongly, albeit at a slower pace than expected at June, with recent project delays casting further doubt as to whether the projected scale of expansion can be achieved within announced timeframes.

The combination of weaker international and domestic conditions has led to a downward revision to forecast growth in real GDP to  $3\frac{1}{4}$  per cent in 2011-12 and 3 per cent in 2012-13. Forecast employment growth has also been revised down to 1 per cent through the year to June 2012 and  $1\frac{1}{4}$  per cent through the year to June 2013, with the unemployment rate now expected to rise over the forecast horizon, from 5.3 per cent currently to  $5\frac{3}{4}$  per cent in the June quarter of 2013. The significant risks to the global economy noted earlier, if they eventuated, would have more significant negative implications for Australia's economic growth and employment outlook.

# Box 1: The mining and non-mining economy

Sustained demand and high prices for Australia's bulk commodity exports are expected to support strong growth in mining production and investment. However, the deterioration in global conditions has placed further pressure on those sectors of the economy that are not benefitting directly from the resources boom. Therefore, the updated forecasts imply a greater divergence between growth in the mining and non-mining economy than in June.

Mapping the expenditure forecasts to production, the mining and related metals manufacturing industries are expected to account for 12 per cent of real GDP in 2011-12. The resources boom is also generating strong growth in the mining-related construction, services and manufacturing industries, which are expected to account for 9 per cent of real GDP in 2011-12. Abstracting from agriculture, this leaves around 70 per cent of the economy that is not expected to benefit directly from the resources boom.

Table 1 shows the growth rates for these four groupings implied by the current economic forecasts. Mining production is forecast to grow 7 per cent in 2011-12 and mining related production is expected to grow around 30 per cent, driven by the forecast strength of mining investment related construction. By contrast, those parts of the non-farm economy that will not benefit directly from the resources boom are expected to grow 0.2 per cent in 2011-12 and 0.7 per cent in 2012-13, following 1.5 per cent growth in 2010-11.

Table 1: Estimated growth in production (per cent, year average)

	09-10	10-11	11-12(f)	12-13(f)	Share of Real GDP (2011-12)
Agriculture	2.1	7.5	1.0	1.1	6.7
Mining <sup>1</sup>	4.3	-0.8	7.3	6.0	12.1
Mining-related	1.8	14.3	29.4	18.0	8.7
Non-mining	2.1	1.5	0.2	0.7	72.5
GDP	2.2	1.9	3.2	3.0	100.0

<sup>1.</sup> Includes related metals manufacturing.

A key conclusion is that, while the Australian economy is forecast to grow at around the trend rate in aggregate over the forecast horizon, growth across those parts of the economy that are not benefitting directly from the resources boom is very weak. Aggregate growth in the relatively labour intensive non-mining and mining-related sectors together (representing around 80 per cent of production and around 94 per cent of aggregate non-farm employment) is forecast to be around 3 per cent in both 2011-12 and 2012-13, or around trend.

Capacity pressures outside the mining sector are expected to ease gradually over the forecast horizon and therefore the forecasts for wages growth and inflation have also been revised down since June. After accelerating through 2010, growth in the Wage Price Index stabilised in the June quarter at around its long-run average. The Wage Price Index growth forecasts have been downgraded by ¼ of a percentage point in each year to 3¾ per cent through the year to the June quarter of both 2012 and 2013. Underlying and headline inflation are forecast to be 2½ per cent through the year to June 2012, with the introduction of the carbon price expected to raise underlying inflation to 2¾ per cent and headline inflation to 3¼ per cent through the year to June 2013. Despite capacity pressures easing, rising prices for health, education and utilities are expected to continue to support non-tradeable inflation. Import prices may also exert less of a deflationary influence over the medium-term as the pass-through of earlier exchange rate appreciation wanes and as rising wages in emerging market economies add to global manufacturing prices.

The terms of trade forecasts have been revised slightly higher in 2011-12 and 2012-13. Prices of Australia's key non-rural commodity exports remain elevated, in part due to a more protracted return to normal operations at Queensland coal mines and underpinned by continued robust demand from China. While most commodity prices have declined since the start of August, spot prices for iron ore and coal have remained stable, suggesting that physical demand has held up despite the volatility in financial markets. There have also been further delays to mine expansion plans, both in Australia and overseas, pushing out supply projections. The terms of trade are now expected to increase 3 per cent in 2011-12, before declining 6¾ per cent in 2012-13 as increasing global iron ore and coal supply capacity comes on line. This would leave the level of the terms of trade around ¾ of a per cent higher at the end of the forecast horizon than anticipated in June. However, consistent with the experience of the global financial crisis, there is a risk that the deterioration in global conditions could lead to a sharper decline in prices of Australia's non-rural commodity exports and hence the terms of trade.

Nominal GDP is forecast to grow  $6\frac{1}{2}$  per cent in 2011-12 and  $4\frac{1}{2}$  per cent in 2012-13. Forecast growth in nominal GDP is  $\frac{1}{4}$  of a percentage point lower in 2011-12 than in June, reflecting the  $\frac{1}{2}$  of a percentage point downgrade to real GDP growth, partially offset by the upward revision to the terms of trade. However, forecast nominal GDP growth has been revised down by  $\frac{1}{2}$  of a percentage point to  $\frac{4}{2}$  per cent in 2012-13, in line with lower expected real GDP growth. Attachment A contains a detailed description of the movements in nominal GDP since the June forecasting round.

Table 2 – Domestic economy forecasts

	Outcomes (a)	Fore	casts	Outcomes (b)	Fore	casts
		Year average		Th	Through the year	
	2010-11	2011-12	2012-13	June 2011	June 2012	June 2013
Panel A - Demand and output(c)				ı — — — — — — — — — — — — — — — — — — —		
Household consumption	3.3	2 3/4	3	3.2	2 3/4	3 1/4
Private investment				i		
Dw ellings	2.6	1 1/2	1 1/2	0.7	1/2	2 1/2
Total business investment(d)	6.0	14	14 1/2	I 10.2	16	13 1/2
Non-dw elling construction(d)	11.3	17 1/2	16 1/2	I 10.4	24	12 1/2
Machinery and equipment(d)	2.0	14	14 1/2	I 13.0	11	16
Private final demand(d)	3.5	5	5 1/2	4.1	5 1/2	5 1/2
Public final demand(d)	4.5	1 1/4	-1	I 1.2	1 1/2	-2 1/2
Total final demand	3.7	4 1/4	4	3.4	4 1/2	3 3/4
Change in inventories(e)	0.2	0	0	1.3	0	0
Gross national expenditure	4.0	4 1/4	4	4.7	3 3/4	3 3/4
Exports of goods and services	0.2	6	5 1/2	-3.7	10	4
Imports of goods and services	10.7	10	9 1/2	10.5	7 1/2	11
Net exports(e)	-2.4	-1 1/4	-1 1/4	-3.4	1/4	-2
Gross domestic product	1.8	3 1/4	3	1.4	4 1/4	1 3/4
Non-farm product	1.5	3 1/4	3 1/4	1.1	4	2 1/4
Farm product	22.3	1	-10	14.3	9	-21
Nominal gross domestic product	8.3	6 1/2	4 1/2	6.3	5 3/4	3 3/4
Panel B - Other selected economic me	asures			1		
External accounts				1		
Terms of trade	20.7	3	-6 3/4	l 12.9	-6 1/2	-5 1/2
Current account balance				1		
\$billion	-33.6	-55 3/4	-91 3/4	-7.4	-16 3/4	-27 1/4
Percentage of GDP(f)	-2.4	-3 3/4	-6	-2.1	-4 1/2	-7
Labour market				1		
Employment (labour force survey basis)	2.9	3/4	1 1/4	2.2	1	1 1/4
Unemployment rate (per cent)(g)	5.1	5 1/2	5 1/2	4.9	5 1/2	5 3/4
Participation rate (per cent)(g)	65.7	65 1/2	65 1/2	65.5	65 1/2	65 1/2
Prices and wages				1		
Consumer Price Index (original)				i İ		
- headline	3.1	3	3 1/4	3.6	2 1/2	3 1/4
- underlying	2.4	2 3/4	2 3/4	2.7	2 1/2	2 3/4
Gross non-farm product deflator	6.4	3 1/4	1 1/2	4.8	1 1/2	1 3/4
Wage Price Index	3.8	3 3/4	3 3/4	3.8	3 3/4	3 3/4

<sup>(</sup>a) Calculated using original data unless otherwise specified.

Note: The forecasts for the domestic economy are underpinned by several technical assumptions. The exchange rate is assumed to remain around its level at the time the forecasts were prepared, with a trade-weighted index of around 75 and a \$US exchange rate of around 103c. Domestic interest rates are assumed to remain constant over the forecast period. World oil prices (Tapis) are assumed to remain around \$US120 per barrel. The farm sector forecasts are based on average seasonal conditions over the remainder of the forecast period.

Source: ABS Cat. No. 5206.0, 5302.0, 6202.0, 6345.0, 6401.0, unpublished ABS data and Treasury.

<sup>(</sup>b) Calculated using seasonally adjusted data unless otherwise specified.

<sup>(</sup>c) Chain volume measure, except for nominal GDP.

<sup>(</sup>d) Excluding second-hand asset sales from the public sector to the private sector.

<sup>(</sup>e) Percentage point contribution to growth in real GDP.

<sup>(</sup>f) The outcomes and forecasts in the final three columns are the percentage of GDP in the June quarter.

<sup>(</sup>g) The outcomes and forecasts in the final three columns are the rate in the June quarter.

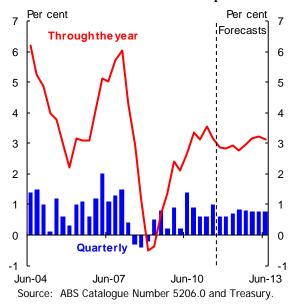
# OUTLOOK FOR THE DOMESTIC ECONOMY

Australia's economic growth is forecast to be 3½ per cent in 2011-12 and 3 per cent in 2012-13. Compared with June, the real GDP growth forecasts have been downgraded by ½ of a percentage point in 2011-12 and ¼ of a percentage point in 2012-13, inclusive of the estimated impact of the Government's carbon price policy.

# Household consumption

Household consumption is forecast to grow 2<sup>3</sup>/<sub>4</sub> per cent in 2011-12 and 3 per cent in 2012-13 – a downward revision of ½ of a percentage point in each forecast year from the June round (Chart 1).

Chart 1: Household consumption



Household consumption growth was solid in the June quarter, underpinned by continued strength in services consumption and solid growth in goods purchases. Balance of payments data suggest that overseas spending by Australian tourists made a significant contribution to consumption growth in the June quarter, with the continued strength of the Australian dollar supporting a surge in overseas departures. Combined with a continued expansion of online purchases, this explains at least in part why the retail trade survey would suggest that Australian retailers

did not benefit from the solid consumption growth in the June quarter.

Partial data for the September quarter have increased following recent monthly declines. After falling in the June quarter, motor vehicle sales have rebounded over the past two months, likely reflecting a return to more normal supply conditions following March's earthquake and tsunami in Japan. Retail sales also rose in July (by 0.5 per cent), after falling in June.

Nonetheless, the outlook for consumption growth has weakened, reflecting recent declines in household net worth and a less positive outlook for incomes growth, in line with the weaker outlook for the labour market. Consumer sentiment has fallen since the first half of 2011 and (according Westpac-Melbourne Institute measure) is well below its long-run average. Household net worth fell in the March and June quarters and is likely to have fallen again in the September quarter, reflecting substantial share market falls in recent months and steadily declining house prices. Developments in global financial markets, to which Australia is intrinsically linked, will continue to pose a risk to the consumption outlook.

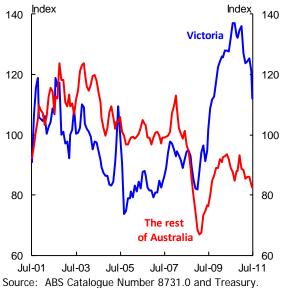
The household saving ratio remained elevated in the June quarter, at 10.5 per cent, with household consumption growing broadly in line with income. Personal credit has been declining over recent months, and is down 0.1 per cent over the year. If this weakness in personal credit growth persists, it would be consistent with a slower pace of household consumption growth going forward for any given increase in household disposable income. Household consumption is forecast to grow broadly in line with household disposable income, such that the household saving ratio is expected to remain elevated over the forecast horizon.

# **Dwelling investment**

The outlook for dwelling investment is broadly unchanged from the June round, with modest growth forecast in 2011-12 and 2012-13. Forecast growth for 2011-12 is unchanged at 1½ per cent, while growth for 2012-13 has been revised down from 2 per cent to 1½ per cent, in line with the weaker labour market outlook.

New dwelling investment grew 4¾ per cent in 2010-11, the strongest growth in the past five years - underpinned by a high level of construction activity in the Victorian market (Chart 2). It is expected that the pipeline of investment in Victoria will continue to support construction activity in the near term. However, with few signs of growth in other states, the substantial weakening in building approvals and housing finance for new dwellings over the past year is expected to see growth ease in 2012-13. Housing finance for new dwellings fell 3.5 per cent through the year to July and private sector dwelling approvals fell 12.8 per cent.

Chart 2: Private sector dwelling approvals (3 month moving average)



Supply constraints associated with planning and approval processes and land release restrictions are also expected to continue to weigh on growth in new dwelling investment over the next two years. The forecasts suggest that around 145,000 new dwellings will be

completed in both 2011-12 and 2012-13, broadly in line with annual completions over the past 5 years (Chart 3).

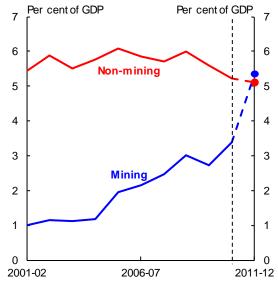
Source: ABS Catalogue Number 8752.0 and Treasury.

2000-01 2003-04 2006-07 2009-10 2012-13

#### **Business investment**

**New business investment** growth forecasts have been downgraded since June, but remain strong. While the record pipeline of mining investment remains intact, the deterioration in conditions in the broader economy has led to a downgrade in forecast growth in non-mining investment (Chart 4). New business investment is forecast to grow by a strong 14 per cent (down from 16½ per cent) in 2011-12, and 14½ per cent (down from 16½ per cent) in 2012-13.

Chart 4: Mining and non-mining investment



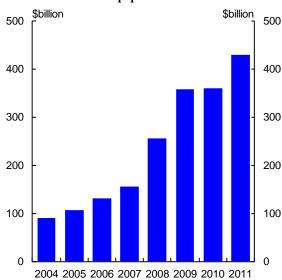
Source: ABS Catalogue Number 5625.0, 5206.0 and Treasury.

The recent deterioration in global economic conditions is yet to have a discernible impact on mining investment intentions. While most commodity prices have declined since the start of August, spot prices for iron ore and coal have remained high, suggesting that physical demand has held up. Therefore, while the global financial crisis demonstrated that a substantial deterioration in global financial conditions can have a substantial impact on mining investment, the fundamental underpinnings of high prices and strong medium-term demand projections remained intact at the time of preparing the forecasts.

The value of expected mining investment has risen by \$10.3 billion over the forecast horizon compared with June, following announcement of the Arrow LNG project (\$15 billion) and a positive final investment decision on the Wheatstone LNG project (\$29 billion) and the Australia Pacific LNG project (US\$14 billion). The resource investment pipeline is at a record \$430 billion (Chart 5) and is expected to result in new business investment, as a share of GDP, reaching 50-year highs by the end of 2012-13. Consistent with previous forecasting rounds, the September JEFG forecasts are based on a conservative translation of mining company

investment plans to the forecasts, consistent with project delays observed to date.

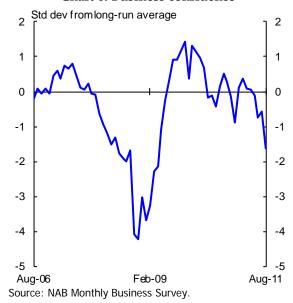
Chart 5: Estimates of the resource investment pipeline



Source: ABARES (2011).

Applying long-run realisation ratios to the June quarter CAPEX survey suggests an increase in non-mining investment of \$3 billion in 2011-12 from the March quarter estimate. The increase was reasonably broad-based, CAPEX intentions rising in most with industries, including manufacturing. However, given the subsequent deterioration in business conditions (around half of the CAPEX responses were received by 7 July, with the remainder received by the beginning August), the non-mining investment based forecasts have been on conservative realisation ratios, implying a substantial downgrade compared to June (Chart 6). The September quarter ACCI-Westpac Survey of Industrial Trends supports this judgment, with the net balance of manufacturers who report plans to increase their spending on plant and equipment falling from 0 in the June quarter to minus 10 in the September quarter.

**Chart 6: Business confidence** 

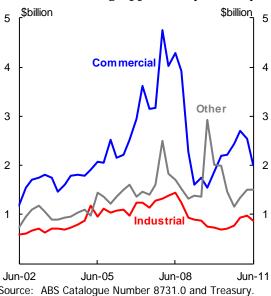


Translating these broad movements in mining and non-mining investment to the individual components, the engineering construction forecasts are broadly in line with the June While growth rates have been forecasts. revised down slightly to 291/2 per cent in 2011-12 and 23 per cent in 2012-13, a higher-thanexpected 2010-11 outcome means that the overall level of engineering construction investment is slightly higher than forecast in However, the new machinery and equipment forecasts have been downgraded since the June round, with the additional strength in mining investment more than offset by the downgrade to non-mining investment. New machinery and equipment investment is forecast to grow 14 per cent in 2011-12 and 14½ per cent in 2012-13, underpinned by mining investment.

Non-residential building investment growth forecasts have also been downgraded since the The June forecasts were for June round. modest growth over the forecast period off a very low base, in line with growing employment, a tightening office market and industry forecasts for a pickup in office However, the NAB Commercial Property Survey, which was conducted in the June quarter and therefore preceded the latest bout of global volatility, points to a deterioration in conditions in all sectors of the commercial property market compared with the March quarter. It suggests that vacancy rates picked up from already high levels and

that rental expectations were flat. Taking into account weak building approvals (Chart 7), the deterioration in conditions since the NAB Commercial Property Survey was undertaken, the potential for even tighter credit conditions amidst the current global volatility, and the weaker growth and employment outlook, we decline expect a 5 per cent non-residential construction in 2011-12, with investment expected to remain flat in 2012-13.

Chart 7: Building Approvals by Industry



Source: ABS Catalogue Number 8731.0 and Treasury.

#### Public final demand

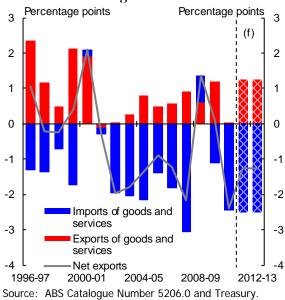
Public final demand forecasts have increased slightly since the June round, with the recent 2011-12 New South Wales, Queensland and South Australian Budgets forecasting higher state and local investment over the next two years, only partially offset by lower government consumption expenditure.

Public final demand growth has declining since it peaked at 7 per cent in 2009-10 and this is expected to continue over the next two years, reflecting the withdrawal of fiscal stimulus and the fiscal consolidation plans of the Commonwealth and State governments. Public final demand is forecast to grow 11/4 per cent in 2011-12, before falling 1 per cent in 2012-13.

# Exports, imports and the current account balance

exports expected are to 11/4 percentage points from real GDP growth in both 2011-12 and 2012-13 (Chart 8). This is a slightly larger detraction in 2011-12 than forecast in June, reflecting slower-than-expected recovery in coal exports following the Queensland floods in early 2011 and delays to new export capacity coming online, partly offset by lower imports growth.

Chart 8: Net exports contribution to GDP growth

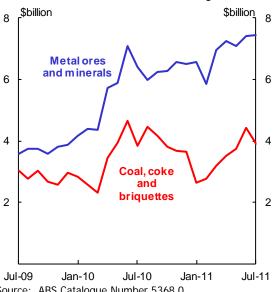


Total exports forecasts in 2011-12 have been downgraded slightly since the June round, reflecting delays in commodity export capacity coming on line. Nevertheless, total exports are expected to increase by a strong 6 per cent in 2011-12 and  $5\frac{1}{2}$  per cent in 2012-13.

Non-rural commodity forecasts have been downgraded slightly in level terms since the June round. In original terms, coal exports from Queensland bounced back in the June quarter from the flood-affected lows earlier in the year. However, with a number of mines continuing experience to issues de-watering, coal (predominantly metallurgical coal) exports from Queensland are not expected to return to pre-flood levels until the end of 2011. Growth over the next been downgraded years has also following revisions to timelines for new

capacity coming online due to logistical issues associated with bringing large scale projects to completion. Two prominent examples of recent project delays are Woodside's Pluto LNG project and CITIC Pacific's Sino Iron project. Notwithstanding the downward revision to the forecasts, growth in non-rural commodity exports is expected to be strong, at 10 per cent in 2011-12 and 8½ per cent in 2012 13.

Chart 9: Coal and iron ore exports



Source: ABS Catalogue Number 5368.0.

Rural export forecasts have been upgraded since the June round, despite a slightly weaker-than-expected 2010-11 Export volumes are expected to grow 3½ per cent in 2011-12 and 3 per cent in 2012-13, driven by stronger production and an down anticipated run of grain inventories. The forecast is also for stronger farm GDP levels, with better-than-expected yields across the Western Australian wheat belt and good carryover soil moisture along the east coast improving grain and cotton yields in 2011-12. The outlook for rural export prices has also strengthened, reflecting lower expected corn yields in the US and a weaker outlook for the US wheat crop.

#### Elaborately transformed manufactures (ETM) export volume forecasts have been upgraded slightly in 2011-12, owing to recent strength in exports transport equipment, downgraded slightly in 2012-13, owing to the weaker growth outlook for Australia's major trading partners. ETM volumes are expected

to grow  $\frac{1}{2}$  per cent in both 2011-12 and 2012-13.

Services' export forecasts broadly are unchanged since the June round. The outlook remains subdued, with continuing declines in overseas student commencements and tourist arrivals suggesting on-going weakness in this sector. Service exports are expected to fall 2 per cent in 2011-12, before rising ½ of a per cent in 2012-13. The forecasts were prepared announcement of the Government's response to the Knight Review (released on 22 September), which contained a of changes to student requirements that may be positive for services exports from 2012-13.

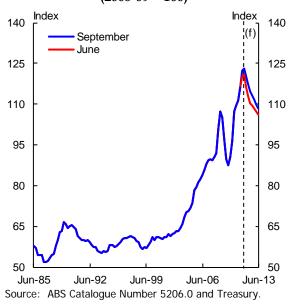
**Import** volume growth forecasts have been reduced slightly since the June round, reflecting weaker domestic demand and the recent depreciation of the Australian dollar. Nevertheless, volumes are expected to increase strongly over the next two years, driven by capital equipment imports associated with the mining investment boom. Import volumes are expected to increase 10 per cent in 2011-12 and 9½ per cent in 2012-13.

Service import volume forecasts have been downgraded slightly since the June round, due to a lower exchange rate assumption and weaker anticipated household consumption expenditure on services, particularly travel. Services' import volumes are expected to grow 9½ per cent in 2011-12 and 2½ per cent in 2012-13.

The terms of trade forecasts have been upgraded since the June round. Prices of Australia's key non-rural commodity exports remain elevated, in part due to a more protracted return to normal operations at Queensland coal mines and underpinned by continued robust demand from China. While high global prices for bulk commodities are resulting in substantial investment in the resources sector, the timing of new supply coming online has been delayed somewhat. Domestically, a number of iron ore and coal projects are finding it increasingly challenging to bring new capacity online by their scheduled completion dates. As Australia is expected to be a major contributor to the increase in the world supply of seaborne iron ore and coal exports, these domestic delays will provide some near-term support for prices in these commodities. This will underpin an expected rise of 3 per cent in the terms of trade in 2011-12, followed by a decline of 63/4 per cent in 2012-13 when substantial additional supply is anticipated to come on line.

The **trade** balance forecasts have been downgraded slightly since the June round, with lower exports growth more than offsetting the combined impact of lower imports growth and higher terms of trade forecasts. However, the widening of the net income deficit is expected to be less pronounced than forecast in June, with lower equity outflows in the June quarter and a lower domestic interest rate assumption outweighing increased outflows associated with the higher terms of trade forecasts. Therefore, the **current account deficit** forecasts have narrowed across the forecast period, to 3¾ per cent of GDP in 2011-12, and 6 per cent of GDP in 2012-13.

# Chart 10: Terms of Trade (2008-09 = 100)



# Employment, wages and inflation

The labour market outlook has weakened since the June round, following soft outcomes in July and August and consistent with the downgrade to the economic growth outlook, particularly in the non-mining sectors of the economy where the vast majority of workers are employed.

After a period where employment seemed to run ahead of activity, there has been a deterioration in labour market conditions. The August labour force release showed a decrease in employment of around 10,000 persons, leaving total employment growth for 2011 at just 22,600.

The Labour Force Survey would appear to have understated employment growth in recent months, with a disconnect between the population figures underpinning the Labour Force Survey and net overseas migration data. Adjusting for these differences suggests that the Labour Force Survey has understated growth in employment by around 20,000 to 40,000 people since the start of 2011. This has partly reversed the overstatement employment growth in 2010, when the Labour Force Survey was slow to pick up the decline in net overseas migration. Average weekly work hours - while highly volatile - have also increased, suggesting that labour demand is perhaps not as weak as the employment figures may imply.

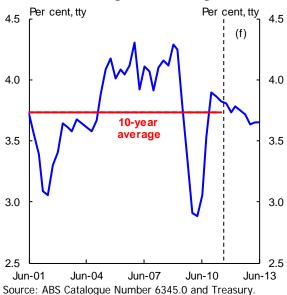
However, even accounting for the possible mismeasurement of population growth and the increase in average weekly work hours, there has been a clear weakening of the labour market since the start of the year. This is evident in ANZ job advertisements, which have fallen 5 per cent since March, and survey measures of business hiring intentions. It is also apparent from the increase in the unemployment rate – which is not affected by the understatement of population growth – from 4.9 per cent in April to 5.3 per cent in August.

The increase in measured unemployment has not yet translated to an increase in unemployment benefit recipients. However, this is not uncommon at turning points and may reflect a number of factors, including a shifting balance between Newstart Allowance and the Disability Support Pension and lags between becoming unemployed and meeting the eligibility criteria for means-tested benefits.

Weakness outside the mining and related sectors of the economy is expected to lead to continuing soft labour demand. **Employment** is forecast to grow 1 per cent through the year to the June quarter of 2012 and 1¼ per cent through the year to the June quarter of 2013 - downgrades of ½ of a percentage point and ¼ of a percentage point since the June round.

After peaking at 66.0 per cent in November 2010, the **participation rate** fell to 65.6 per cent in August 2011. The participation rate is forecast to remain broadly stable at around 65½ per cent over the forecast period and therefore weaker employment growth is expected to translate to a gradually rising unemployment rate. The **unemployment rate** is forecast to rise from 5.3 per cent currently to 5½ per cent by the June quarter of 2012 and 5¾ per cent by the June quarter of 2013.

Chart 11: Wage Price Index growth

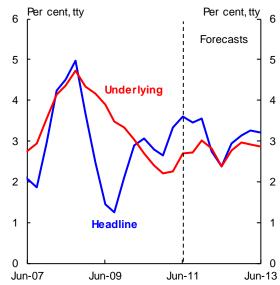


Capacity pressures outside the mining sector are expected to ease gradually over the forecast horizon and therefore the forecasts for wages growth and inflation have been revised down since June. After accelerating through 2010, growth in the Wage Price Index stabilised in the June quarter at around its long-run average. While skills shortages in the resource and related sectors are expected to drive localised wage pressures, the weaker outlook in the broader economy and labour market is expected to result in a decline in wage growth. The Wage Price Index growth

forecasts have been downgraded by  $\frac{1}{4}$  of a percentage point in each year to  $3\frac{3}{4}$  per cent through the year to the June quarters of both 2012 and 2013 (Chart 11).

Underlying and headline inflation are forecast to be 2½ per cent through the year to the June quarter of 2012, with the introduction of the carbon price expected to raise underlying inflation to 2\(^4\) per cent and headline inflation to 31/4 per cent through the year to the June quarter of 2013. capacity pressures are expected to ease, it is likely that rising prices for health, education and utilities will continue to support nontradeable inflation. Import prices may also exert less of a deflationary influence over the medium-term as the pass-through of exchange rate appreciation wanes and as rising wages in emerging market economies add to global manufacturing prices.

# **Chart 12: Inflation**



Source: ABS Catalogue Number 6401.0 and Treasury.

#### **OUTLOOK FOR THE INTERNATIONAL ECONOMY**

Table 3: International GDP growth forecasts<sup>(a)</sup>

	2010	2011		2012		2013	
	Actual	June	Sep JEFG	June	Sep JEFG	June	Sep JEFG
United States	3.0	2 1/2	1 1/2	3	1 3/4	2 3/4	2 1/4
Euro area	1.8	1 1/2	1 1/4	1 1/2	3/4	1 3/4	1 1/4
Japan	4.0	0	-1	3	2 1/4	1	1 1/4
China	10.4	9 1/4	9	9	8 3/4	8 3/4	8 1/2
India	9.9	8 1/4	7 1/2	7 3/4	6 1/2	8 1/4	8
Other East Asia (b)	7.6	5 1/2	4 1/2	5	4	5	4 3/4
Major Trading Partners	6.6	4 1/2	3 3/4	5	4 1/4	4 3/4	4 1/2
World	5.1	4 1/4	3 3/4	4 1/2	3 3/4	4 1/2	4 1/4

<sup>(</sup>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.

Source: National statistical publications. IMF and Treasury.

#### World outlook and risks

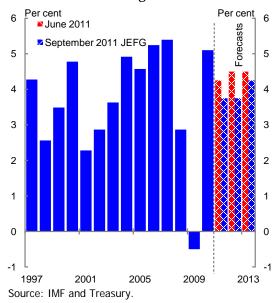
Downside risks to the global recovery have risen markedly since the June informal round. Forecasts for the euro area and the United States have been revised down to reflect the worsening euro area sovereign debt crisis, and an expectation of subdued US consumption growth. The weaker outlook for Europe and the US has been factored into the outlook for highly trade-exposed Asian economies, which have also been revised significantly lower. However, barring a more severe slowing in US and European growth, non-Japan Asian economies, as well as emerging economies overall, are expected to continue growing at relatively solid rates.

The **global growth** forecast for 2011 has been revised down ½ a percentage point to 3¾ per cent (Table 1 and Chart 1). This reflects downward revisions to growth for all of the major economies, in particular the US due to revisions to historical GDP data and an expectation of more subdued growth in the second half of 2011.

Global growth for 2012 and 2013 has been revised down to 3¾ per cent and 4¼ per cent respectively. This largely reflects US and European prospects continuing to be very subdued by ongoing balance sheet repair in the public and private sectors, while emerging economies continue to drive global growth through strong domestic demand.

The forecast for GDP growth in Australia's major trading partners (MTPs) in 2011 has been revised down ¾ of a percentage point to 3¾ per cent. The larger downgrade to MTP growth relative to world growth reflects the cumulative impacts of a 1¼ percentage point downgrade to the highly trade-exposed NIEs, a one percentage point downgrade to Japan, and downgrades of ¾ of a percentage point to the ASEAN-5 and India.

Chart 13: World GDP growth



Slower growth in the North Atlantic economies in 2012 is expected to impact on growth in our MTPs, particularly the highly trade-exposed NIEs, with forecast 2012 MTP growth revised down 3/4 of a percentage point to 41/4 per cent. The noticeably higher MTP

<sup>(</sup>b) Other East Asia is: Korea, Taiwan, Hong Kong, Singapore, Indonesia, Malaysia, Thailand, Vietnam and the Philippines.

growth for 2012 compared to 2011 largely reflects the rebound in Japanese growth due to reconstruction efforts.

Downside risks to the outlook have become much more prevalent in recent months, and it is clear that the global recovery is increasingly vulnerable to negative shocks.

The euro area sovereign debt crisis has worsened, and the risk of contagion is rising. The sharp rise in borrowing costs in Spain and Italy in late July and early August required the European Central Bank (ECB) to step in and purchase Spanish and Italian bonds. While the ECB's purchases initially lowered bond yields, most recently yields have begun to creep up again, with lingering concerns over what will happen when ECB support is eventually removed.

Similarly, uncertainty persists over the shape of additional assistance to Greece, and about when the almost inevitable debt restructuring will occur and how it will be handled. Confidence in the European banking system, which is widely seen as undercapitalised and highly exposed to European sovereign debt, is also declining.

While euro area authorities continue to bicker over policy responses, the threat of a severe disruption to European banks, global financial markets and the global economy, continues to rise. Such an event could result in mass global risk aversion, a sudden capital outflow from emerging economies into safe havens, and the freezing up of credit markets, with obvious implications for real global activity, including trade flows.

The bitter debate in the US Congress over the debt ceiling pushed the US to the brink of what would have been a catastrophic, and self-imposed, default. While the debt ceiling was eventually raised, the lack of a concrete medium-term fiscal consolidation plan saw Standard & Poor's downgrade the US to AA+. Nevertheless, US Treasury yields have continued to fall since the downgrade, due to safe haven flows and weakening economic prospects.

US economic growth in 2011 is weaker than in the second half of 2010 when double dip recession concerns abounded. While US growth in the first half of 2011 was held down by a series of temporary factors, the slowing has nonetheless highlighted the ongoing fragility of the US recovery.

On 8 September, President Obama announced the *American Jobs Act*, which includes an extension of existing fiscal stimulus measures, plus proposals for infrastructure spending. While the proposals could boost growth, it is highly uncertain as to what components of the package, if any, will be passed by Congress. Markets will remain very sensitive to any economic data coming out of the US, which is likely to be volatile in the short term as weakness in housing and labour markets act to suppress consumption, and as the temporary impacts from the first half of 2011 of high oil prices and auto supply chain disruption abate.

Given the risks to European and US growth, inflation pressures in the emerging economies are currently a less significant risk to the global recovery. However, if inflation pressures do not moderate as expected in these economies, they will effectively be constrained in their ability to further increase their contribution to global growth if the advanced economies slow more sharply. Indeed, if inflation pressures persist, it is more likely that a sharp tightening in monetary policy will be necessary, which would have significant ramifications for global growth.

While the weaker outlook for the US and Europe will have a negative impact on China's growth, this is expected to be relatively modest due to ongoing robust growth in Chinese domestic demand.

A minor upside to the global outlook is that some downside risks have receded, namely a sustained rise in oil prices, and the threat of a longer-lasting disruption to supply chains in the aftermath of the Japanese earthquake and tsunami.

## **Country summaries**

The outlook for the **United States** has worsened since the June round, with revisions to US GDP data showing that output has not yet returned to pre-crisis levels. This occurred in conjunction with the downgrading of the US' sovereign credit rating by Standard & Poor's, after the protracted debt ceiling debate pushed the US to the brink of a technical default in early August.

The confluence of temporary factors that held back US growth in the first half of 2011 — such as high oil prices and the supply-chain effects of the Japanese earthquake — are gradually abating. However, the outlook for the rest of 2011, and the remainder of the forecast horizon, remains subdued. Correspondingly, the forecast for 2011 has been revised down to 1½ per cent, from 2½ per cent at the June round. Similarly, the forecast for 2012 growth has been revised down from 3 per cent to 1¾ per cent, with 2013 growth forecast at 2½ per cent (slightly below trend).

The downgrades to the US forecasts reflect the ongoing weakness of the US labour and housing markets. The US long-term unemployment rate remains historically high, while employment growth has failed to demonstrate consistent strength. Unemployment has once again risen above 9 per cent. As such, the outlook for the US labour market, and hence consumption growth, is subdued. The weak consumption outlook is exacerbated by the persistent wealth effects of the depressed US housing market.

While the newly announced *American Jobs Act* is likely to provide some targeted assistance to the US labour market and broader economic recovery, its influence will likely be tempered by political constraints, and potentially any fiscal austerity measures resulting from the recommendations of the Joint Select Committee on Deficit Reduction.

The key downside risk to US economic growth remains the state of the labour market, with reduced participation in the labour market a distinct possibility as a result of long-term unemployment. Additionally, fiscal consolidation, if not done in a 'backloaded'

and gradual manner, poses further risks to the strength of the US economic recovery in the near term.

China's economy is expected to grow by 9 per cent in 2011 (down from 9¼ per cent at June), 8¾ per cent in 2012, and 8½ per cent in 2013. The downward revision in 2011 largely reflects the weaker growth prospects in the US and Europe, which together directly account for roughly 40 per cent of China's exports. As such, the forecast for net exports' contribution to growth has been revised down, while our forecasts for domestic demand remain largely unchanged.

Economic activity in China has moderated as expected, with policy tightening measures over the past year seeping through to real activity. Despite slight downward revisions to growth, underlying growth prospects in China remain robust. Investment continues to grow at a healthy pace, driven by strong growth in manufacturing and real estate investment. Most other indicators of economic activity also remain solid, albeit with activity moderating, including industrial production, retail sales and loan growth.

Inflation has been a key concern for policy makers this year and reached a three-year high of 6.5 per cent through the year to July, driven by rising food prices, supply shortages of key produce and after-effects of excess liquidity. However, tentative signs of moderation emerged in August, with inflation widely expected to have peaked for the year, supported by an easing in supply shortages and the lagged effects of tighter monetary policy. While likely to moderate over the remainder of the year, inflation is expected to remain well above the government's target of 4 per cent for the year.

Risks to the near-term outlook are concentrated in the external sector. While China is less reliant on net exports than during the pre-crisis period, a dramatic slowdown in external trade is likely to filter through to domestic activity, especially investment in the manufacturing sector, which has been a major driving force for investment this year. Fragilities in the financial sector also pose risks to the broader outlook going forward, a legacy

of the 2008 fiscal stimulus package which saw local government debt rise to the equivalent of 27 per cent of GDP in 2010.

The **Japanese** economy continues to recover from the earthquake and tsunami, reflecting an easing of supply constraints and improvement in business sentiment. The pace of recovery has, however, been slower than originally anticipated largely due to delays in reconstruction efforts. Significant uncertainties surround the forecast due to ongoing problems at nuclear power plants, the risk of a more severe downturn in the global economy and the movement of the yen.

With concern growing that its public debt could balloon further in order to finance reconstruction work, Japan's new administration is committed to pursuing fiscal consolidation, which would have medium to long-term benefits to the economy. Overall, the Japanese economy is expected to contract 1 per cent in 2011. For 2012 and 2013, the economy is expected to grow  $2\frac{1}{4}$  per cent and  $1\frac{1}{4}$  per cent respectively.

After growing 9.9 per cent in 2010, **India's** economic growth has continued to show signs of moderation. This is partly the result of easing industrial production and tighter monetary policy. Inflation is still a key concern in India. Although WPI inflation has eased in recent months, it still remains at quite elevated levels (above 9 per cent) and significantly above the Reserve Bank of India's (RBI) 'comfort' level. This means the RBI is likely to further tighten monetary policy which will impact on growth for 2012. The Indian economy is forecast to grow 7½ per cent in 2011, 6½ per cent in 2012 and gradually return to around trend at 8 per cent in 2013.

Since the June round, economic and financial conditions in the **euro area** have deteriorated markedly, with the ongoing concerns in the periphery spreading to the larger 'core' economies.

Since June, a further deterioration in the Greek debt crisis, coupled with market concerns about the debt sustainability of Spain and Italy – the regions' third and fourth largest economies – has weighed heavily on both

household and business confidence, with forward indicators falling sharply. Of particular concern, is that Germany – a key driver of recent growth in the euro area – is now showing signs of being adversely affected by the region's woes. As such, growth over the rest of 2011 and the first half of 2012 is expected to be anaemic.

Reflecting these developments, growth forecasts have been revised down from  $1\frac{1}{2}$  per cent to  $1\frac{1}{4}$  per cent in 2011 and from  $1\frac{1}{2}$  per cent to  $3\frac{3}{4}$  of a per cent in 2012. In 2013, growth is assumed to gradually increase towards trend.

The risks to the outlook remain firmly on the downside. While the forecasts have not assumed a collapse of the euro area, economic growth in the bloc is likely to contract should an adverse event occur such as a Greek default or a further escalation in market concerns over Spanish and Italian sovereign debt.

The **United Kingdom** economy expanded modestly in the June quarter 2011, following broadly flat growth over the previous two quarters. A fragile recovery is expected for the remainder of 2011, with growth expected to be weighed down by the Government's austerity measures and weak private consumption. The subdued outlook for private consumption reflects a marked tightening in real disposable incomes and a soft housing market.

With UK growth prospects heavily dependent on business spending and external demand, key risks to the outlook are the euro area sovereign debt crisis and uncertain growth prospects for the United States. In line with these developments, the UK economy is expected to record weak growth of 1 per cent in 2011. Growth is forecast to pick up to  $1\frac{3}{4}$  per cent in 2012 and  $2\frac{1}{2}$  per cent in 2013.

While the export-dependent **Newly Industrialised Economies (NIEs)** rebounded strongly from the global economic downturn, growth is now projected to moderate, given weaker external demand and recent monetary tightening. Already there are signs that the weaker global environment is impacting on these economies, with negative quarterly GDP

growth recorded in Singapore and Hong Kong in the June quarter.

Key downside risks to the forecast include a double dip recession in the US, sovereign debt contagion in the euro area and heightened financial market volatility.

As with the NIEs, following strong growth in 2010, economic growth in the ASEAN-5 has begun to moderate, consistent with weakness in US and European export markets, tightening of monetary policy to contain inflationary pressures, and supply chain disruptions arising from the triple disaster in Japan.

If global conditions deteriorate further, the ASEAN-5 economies will not be immune, with the more trade-exposed economies of Malaysia and Thailand likely to be the hardest hit. However, economic growth in Indonesia,

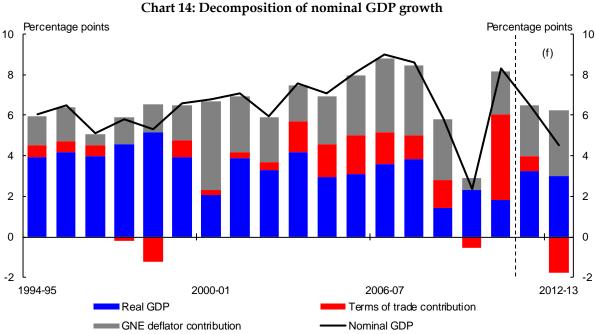
which makes up nearly 40 per cent of ASEAN-5 GDP in purchasing power parity terms, will underpin growth within the group, with robust domestic demand insulating Indonesia from external weaknesses.

The New Zealand economy is recovering, despite earthquakes in Canterbury and limited domestic spending growth. Ongoing support from high commodity prices reconstruction in Canterbury associated with the recent earthquakes are expected to underpin New Zealand's economic outlook, with particular strength in 2012 as rebuilding peaks. However, private consumption spending is likely to remain subdued as households continue to rebuild their savings. The key risks to the outlook relate to ongoing uncertainties in the global economy and the likely effects this will have on New Zealand's major trading partners.

## ATTACHMENT A: FORECAST GROWTH IN NOMINAL GDP

Nominal GDP is forecast to grow 6½ per cent in 2011-12 and 4½ per cent in 2012-13. These forecasts are weaker than the June round due to the weaker outlook for real GDP growth. The forecast for nominal GDP growth in 2011-12 is ¼ of a percentage point lower than the June round, with the weaker forecast for real growth partly offset by higher forecast growth in the terms of trade. The forecast for growth in 2012-13 is ½ of a percentage point lower than the June forecast, driven by the weaker forecast for real GDP growth. Forecast growth in the GDP deflator in 2012-13 is unchanged from June as slightly higher domestic inflation under carbon pricing offsets a larger forecast fall in the terms of trade.

Overall the level of nominal GDP is expected to be around \$1½ billion lower than expected in the June round in 2011-12 and around \$7½ billion lower in 2012-13.



GNE deflator contribution

Source: ABS Catalogue Number 5206.0 and Treasury.

Total corporate gross operating surplus (GOS) is expected to grow 6½ per cent in 2011-12 and 3 per cent in 2012-13. Forecast growth in GOS for 2011-12 has been revised down since the June round due to the deterioration of the outlook for the non-mining sector. In contrast, the prospects for the mining and mining-related parts of the economy remain buoyant. Forecast GOS growth in 2012-13 is ¾ of a percentage point stronger than the June round forecast.

Compensation of employees (COE) is forecast to grow 6 per cent in 2011-12 and 5 per cent in 2012-13. Forecast growth in COE is weaker in 2011-12 and 2012-13 by ½ and 1 percentage points respectively. The revision to the forecast reflects weaker expected employment growth in 2011-12 and weaker expected wage growth combined with slower employment growth in 2012-13.

Gross mixed income (GMI), which includes the wages and profits of farm and other unincorporated enterprises, is forecast to grow  $5\frac{1}{2}$  per cent in 2011-12 and  $1\frac{1}{2}$  per cent in 2012-13. These growth forecasts represent an upgrade on the June estimates in 2011-12 and a downgrade in 2012-13 partly due to a higher expected level of farm profits in 2011-12 arising from the favorable seasonal outlook, before a return to average seasonal conditions in 2012-13.