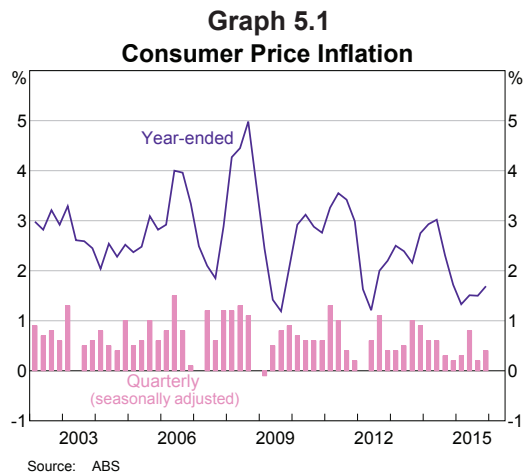


# 5. Price and Wage Developments

## Recent Developments in Inflation

Inflation rose in the December quarter, following a low September quarter outcome (Table 5.1; Graph 5.1). Indicators of underlying inflation increased to be around ½ per cent in the quarter. Over the year, various measures suggest that underlying inflation was about 2 per cent and in line with the forecast in the November *Statement* (Graph 5.2). Underlying inflation continues to be affected by a range of different forces. The depreciation of the Australian dollar is putting upward pressure on the prices of tradable items. At the same time, a period of spare capacity in the



**Table 5.1: Measures of Consumer Price Inflation**  
Per cent

	Quarterly <sup>(a)</sup>		Year-ended <sup>(b)</sup>	
	December quarter 2015	September quarter 2015	December quarter 2015	September quarter 2015
Consumer Price Index	0.4	0.5	1.7	1.5
Seasonally adjusted CPI	0.4	0.2	–	–
– Tradables	0.2	–0.1	0.8	–0.3
– Tradables (excl. volatile items and tobacco) <sup>(c)</sup>	0.5	–0.1	0.8	0.2
– Non-tradables	0.4	0.4	2.3	2.6
– Non-tradables (excl. utilities)	0.4	0.5	2.4	2.7
<i>Selected underlying measures</i>				
Trimmed mean	0.6	0.3	2.1	2.1
Weighted median	0.5	0.4	1.9	2.1
CPI excl. volatile items <sup>(c)</sup>	0.6	0.3	2.1	2.1

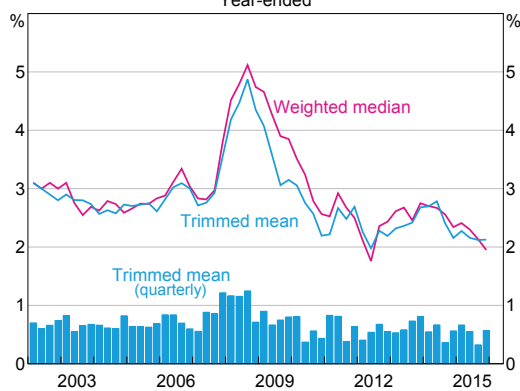
(a) Except for the headline CPI, quarterly changes are based on seasonally adjusted data; those not published by the ABS are calculated by the RBA using seasonal factors published by the ABS

(b) Year-ended changes are based on non-seasonally adjusted data, except for the trimmed mean and weighted median

(c) Volatile items are fruit, vegetables and automotive fuel

Sources: ABS; RBA

**Graph 5.2**  
**Measures of Underlying Inflation**  
Year-ended



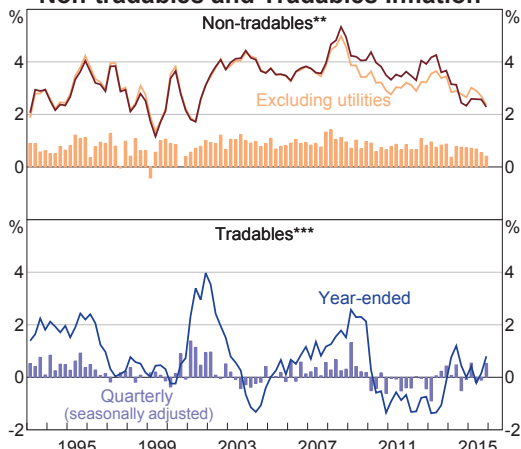
Source: ABS

labour market and a number of domestic product markets, as well as declines in the cost of business inputs such as fuel and utilities, have put downward pressure on tradables and non-tradables inflation.

Headline inflation rose in the December quarter to 0.4 per cent (in seasonally adjusted terms) and remains low over the year at 1.7 per cent, partly reflecting temporary factors including lower fuel prices following a further decline in oil prices and a decline in utility prices in the September quarter.

Non-tradables inflation (excluding utility prices) edged down further in the December quarter and remains below its inflation-targeting average in year-ended terms (Graph 5.3). Market services inflation remains low, reflecting spare capacity in the labour market and the associated low growth in labour costs (Graph 5.4). Also, residential rent inflation has declined to low levels across capital cities, consistent with the general upward trend in rental vacancies (Graph 5.5). In Perth, the level of rents has actually declined over the year, reflecting weaker demand due to lower population growth, combined with an increase in the supply of rental properties over recent years. Inflation in new dwelling costs has declined from its very strong pace in early 2015, particularly in Sydney.

**Graph 5.3**  
**Non-tradables and Tradables Inflation\***



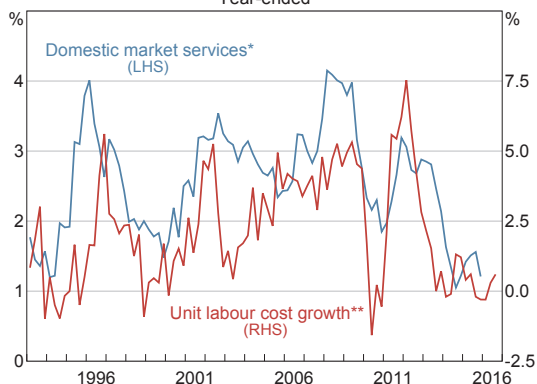
\* Adjusted for the tax changes of 1999–2000

\*\* Excluding interest charges prior to the September quarter 1998 and deposit & loan facilities to June quarter 2011

\*\*\* Excluding volatile items (fruit, vegetables and automotive fuel) and tobacco

Sources: ABS; RBA

**Graph 5.4**  
**Market Services Inflation**  
Year-ended



\* Excludes deposit & loan facilities to June quarter 2011, housing services and domestic travel; adjusted for the tax changes of 1999–2000

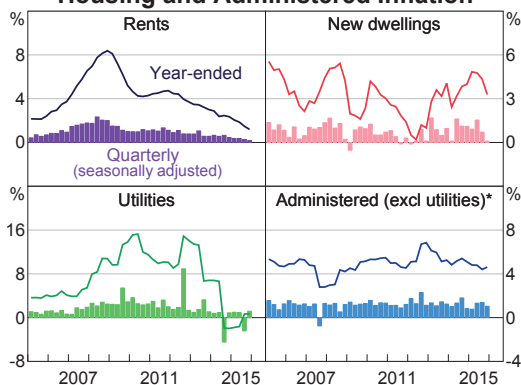
\*\* Moved forward by four quarters, non-farm

Sources: ABS; RBA

The prices of administered items are less affected by spare capacity in the labour market than other non-tradable items. Overall, inflation in administered prices increased in the December quarter to be around its inflation-targeting average. This followed a low outcome in the previous quarter driven by regulatory decisions that resulted in lower utility prices.

**Graph 5.5**

**Housing and Administered Inflation**



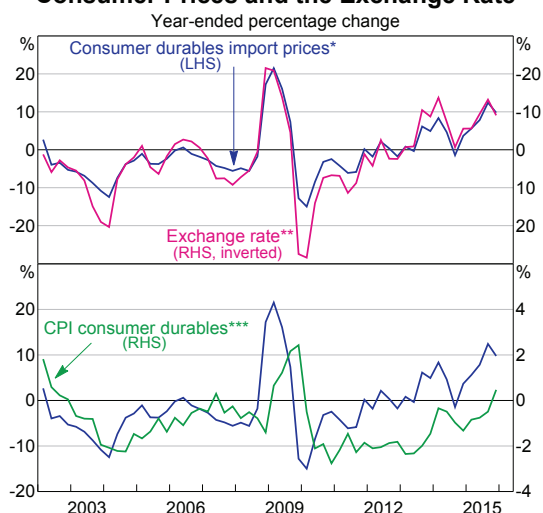
\* Includes education, child care, health services, property rates, urban transport fares, postal services, some motor vehicle services and pharmaceutical products

Sources: ABS; RBA

The prices of tradable items (excluding volatile items and tobacco) increased in the December quarter. These prices tend to be heavily influenced by movements in the exchange rate, as these items are either imported or more exposed to international competition than prices for non-tradable items. The import prices for retail items (such as consumer durables or food and alcohol) have risen in line with the depreciation of the exchange rate over recent years (Graph 5.6). This increase in the cost of imported goods is putting upward pressure on final retail prices, although inflation in retail items is often volatile from quarter-to-quarter and other factors may play a role. In the December quarter, there was a relatively broad-based pick-up in consumer durables prices, after a decline in the September quarter, while the prices of food and alcohol were little changed (Graph 5.7). The Bank's liaison suggests that heightened competitive pressures, including from new entrants, may have limited the extent to which higher import costs have been evident in final retail prices over the past few years. Retailers are expected to pass these higher costs on gradually, though ongoing competition may temper the rise in final consumer prices for some time.

**Graph 5.6**

**Consumer Prices and the Exchange Rate**



\* Consumption goods (excluding food and beverages), reweighted using CPI weights

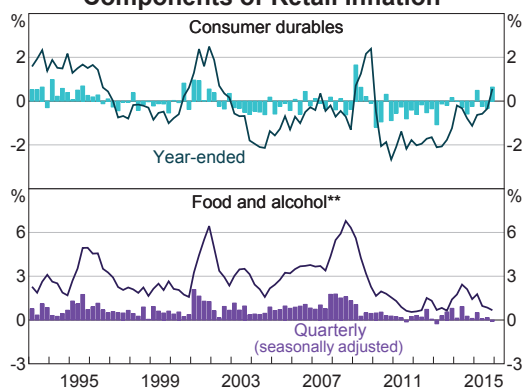
\*\* Import-weighted index, quarter average

\*\*\* Retail items (excluding food and alcohol)

Sources: ABS; RBA

**Graph 5.7**

**Components of Retail Inflation\***



\* Adjusted for the tax changes of 1999–2000

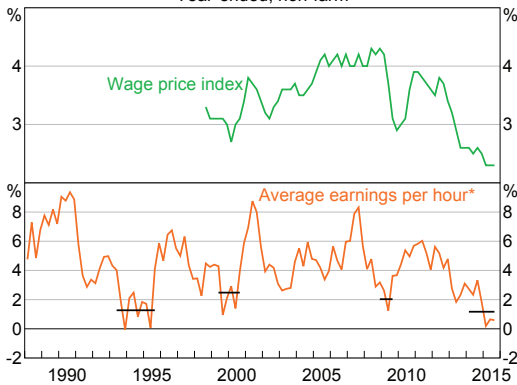
\*\* Excluding fruit, vegetables, and meals out and take away foods

Sources: ABS; RBA

**Labour Costs**

Labour cost pressures remain weak. The wage price index (WPI) increased by 0.6 per cent in the September quarter and by 2.3 per cent over the year (Graph 5.8). Growth in measures of labour income that capture changes in the composition of employment and incorporate a wider range

**Graph 5.8**  
**Wage Growth**  
Year-ended, non-farm



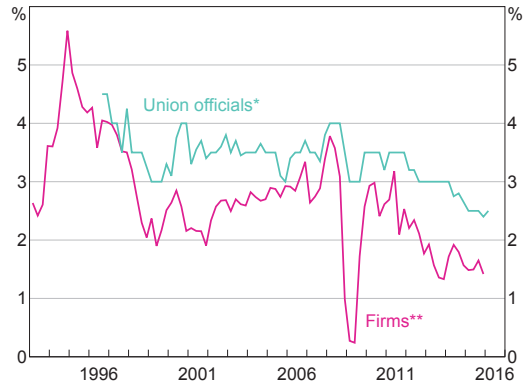
\* The black lines represent the average over the period  
Sources: ABS; RBA

of payments has been lower than growth in the WPI. For example, average earnings per hour (from the national accounts) grew by only 0.6 per cent over the past year. The recent period has been comparable to the episode of low earnings growth in the early 1990s. Unions and firms expect wage growth to remain low for some time (Graph 5.9).

Low wage growth has been broad based across the public and private sectors, industries and states over the past few years. Wage growth has continued to decline in many goods-related industries where employment growth has been weakest (Graph 5.10). In contrast, wage growth has been little changed in household service industries where employment has increased substantially. Business services wage growth has continued to decline, driven by the industries that appear to be more exposed to the fall in mining investment, such as rental, hiring & real estate and administrative & support services. Wage growth has been broadly unchanged in some other business service industries, for example professional, scientific & technical services and financial & insurance services, where employment has increased of late.

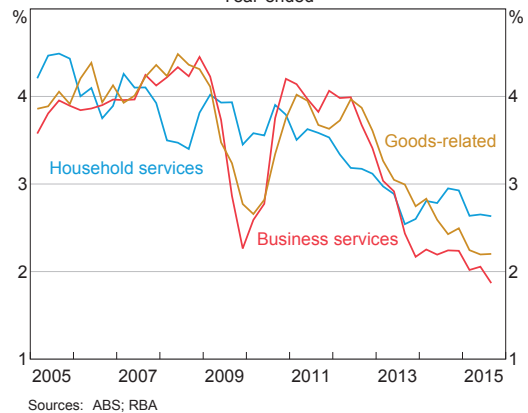
Aggregate labour income growth has been weak not only because of low wage growth within industries, but also because there has been a shift in

**Graph 5.9**  
**Wage Growth Expectations**  
Year-ahead



\* RBA survey; median expectation  
\*\* NAB survey; next three months; annualised  
Sources: Australian Council of Trade Unions; NAB; RBA; Workplace Research Centre

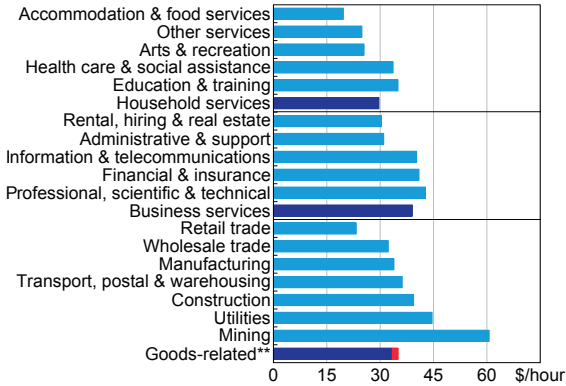
**Graph 5.10**  
**Wage Price Index Growth**  
Year-ended



Sources: ABS; RBA

the composition of employment away from mining-related activities towards household services. The mining industry has the highest earnings per hour of all industries and, on average, the household services sector has lower earnings per hour than the business services and goods-related sectors (Graph 5.11). It is also likely that some workers have moved from high-paying jobs in mining-related activities to similar types of work but in lower-paying positions in the non-mining economy. For example, liaison suggests that many of the construction workers employed in the investment

**Graph 5.11**  
Average Hourly Earnings\*  
2014/15 average



\* Average weekly earnings divided by average weekly hours worked  
\*\* Red bar shows effect of mining  
Sources: ABS; RBA

phase of the mining boom had previous experience in civil and residential construction and have been able to return to jobs in these industries (often at lower wage rates).<sup>1</sup>

Overall, some decline in wage growth would be expected given a period of spare capacity in the labour market. However, the decline has been more pronounced than that implied by the historical relationship with the unemployment rate. Several factors may help to explain this, including the lower level of inflation expectations and what appears to have been an increase in labour market flexibility that may have provided firms with greater scope to adjust wages in response to a given change in demand for their goods and services.<sup>2</sup>

Unit labour costs have been little changed for around four years because labour productivity (output per hour worked) and average earnings have grown at broadly the same pace. This is likely to have encouraged firms to employ more people than they would have otherwise. Together with

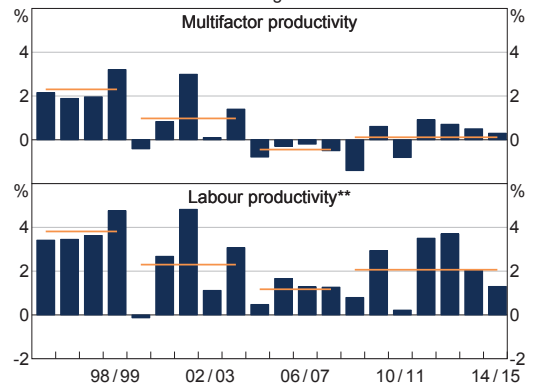
1 For a more detailed discussion see Doyle, M-A (2014), 'Labour Movements during the Resources Boom', RBA *Bulletin*, December 2014, pp 7–16 and Heath, A (2015), 'The Role of the RBA's Business Liaison Program' Address to the Urban Development Institute of Australia (WA Division Incorporated) Luncheon, Perth, 24 September.  
2 For a more detailed discussion see Jacobs D and A Rush (2015), 'Why is Wage Growth So Low?', RBA *Bulletin*, June Quarter, pp 10–18.

the depreciation of the exchange rate over recent years, low unit labour cost growth is also helping to restore the international competitiveness of Australia's labour, following a period of relatively strong growth in unit labour costs.

Average labour productivity and multifactor productivity growth have picked up somewhat, after slowing through the mid 2000s (Graph 5.12).<sup>3</sup> This improvement in productivity growth has been broad based across industries, just as the slowdown in the mid 2000s was broad based (Graph 5.13).

While the pick-up in labour productivity growth has helped to improve national income growth and living standards, it has largely been offset by the effect of falls in the terms of trade and labour force participation. Indeed, growth of net national disposable income (NNDI) per hour worked was high through the mid 2000s, even though labour productivity growth was low, due to the boost to incomes associated with the rapid rise in the

**Graph 5.12**  
Market Sector Productivity\*  
Annual growth

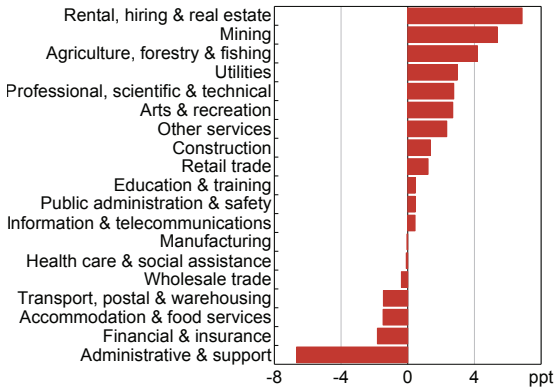


\* Lines represent the averages over ABS productivity cycles  
\*\* GDP per hour worked  
Sources: ABS; RBA

3 The ABS only publishes multifactor productivity growth for the market sector, which excludes: health care & social assistance, public administration & safety, and education & training. The trends in labour productivity for the market sector are consistent with those for all industries.

**Graph 5.13**  
**Labour Productivity Improvement**

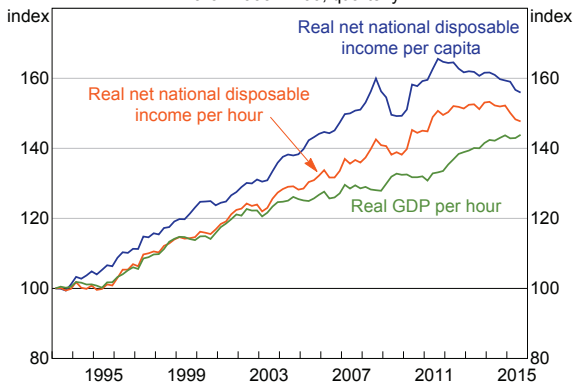
Change in average annual growth,  
03/04–07/08 to 07/08–14/15



Sources: ABS; RBA

terms of trade (Graph 5.14).<sup>4</sup> During this period, growth of income was even higher on a per capita basis because employment rose by more than the population. More recently, the terms of trade have declined and the labour force participation rate remains below its peak of a few years ago. This has offset the improvement in productivity growth and so NNDI per capita has declined somewhat.

**Graph 5.14**  
**Productivity and Income**  
March 1993 = 100, quarterly



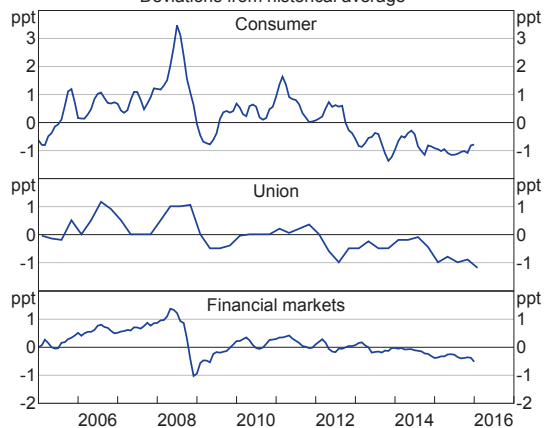
Sources: ABS; RBA

4 NNDI per hour worked adjusts GDP per hour worked for the purchasing power effects of changes in the terms of trade, the depreciation of the capital stock and net income transfers to the rest of the world. See RBA (2015), 'Box A: The Effects of Changes in Iron Ore Prices', *Statement on Monetary Policy*, February, pp 13–16.

## Inflation Expectations

Near-term measures of inflation expectations – for consumers, market economists and union officials – remain below average (Graph 5.15).<sup>5</sup> Longer-run inflation expectations based on financial market pricing remain consistent with the inflation target. ↕

**Graph 5.15**  
**Measures of Inflation Expectations**  
Deviations from historical average\*



\* Since July 1996

Sources: Australian Council of Trade Unions; Melbourne Institute of Applied Economic and Social Research; RBA; Workplace Research Centre; Yieldbroker

5 The series for consumer expectations is the three-month moving average of the trimmed mean of inflation expectations over the next year; union expectations are the median of union officials' expectations of inflation over the next year; financial market expectations are the break-even 10-year inflation rate on indexed bonds (with interpolation used to match exact maturity).