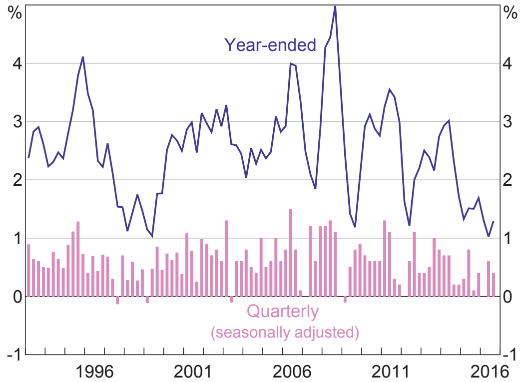
5. Price and Wage Developments

Inflation

A number of factors have contributed to continued low inflation. Spare capacity in the labour market is restraining wage growth. Heightened competition in a number of product markets is also contributing to low inflation outcomes. Furthermore, measures of inflation expectations have declined over the past year, which may be influencing price and wage-setting behaviour. Lower inflation expectations may, in part, reflect the effect of the large fall in oil prices and commodity prices more generally, over recent years. The adjustment to the decline in the terms of trade over recent years has also weighed on nominal growth – including via wages and margins – and the effect of the decline in the terms of trade is evident in the particularly low inflation outcomes in Perth. The depreciation of the exchange rate since 2013 has put upward pressure on tradable prices in recent years.

The September quarter inflation data were broadly in line with forecasts made at the time of the August *Statement*. Headline consumer price inflation increased a little in year-ended terms to 1.3 per cent (Graph 5.1; Table 5.1). Volatile items added to headline inflation in the quarter; higher fruit and vegetable prices caused by supply disruptions more than offset a decline in fuel prices. In year-ended terms, measures of underlying inflation have been around 1½ per cent over the past few quarters (Graph 5.2). Non-tradable inflation was little changed in the September quarter (Graph 5.3). It continues to be weighed down by low price growth of market services and rents.

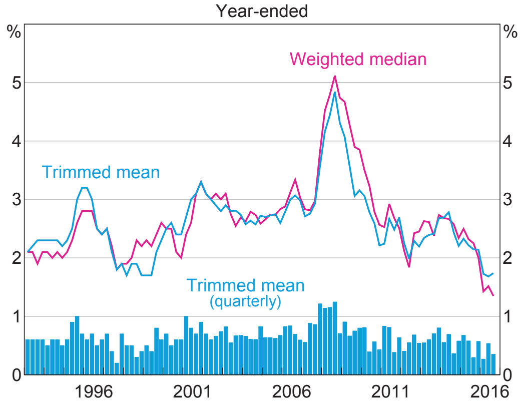
Graph 5.1
Consumer Price Inflation*



* Excludes interest charges prior to the September quarter 1998; adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

Graph 5.2
Measures of Underlying Inflation*
Year-ended



* Excludes interest charges prior to the September quarter 1998; adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

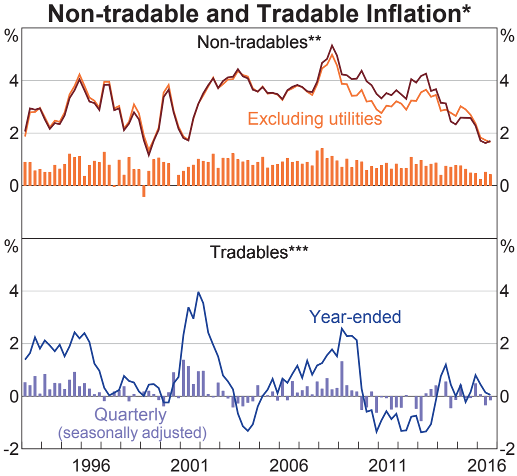
Prices for tradable items (excluding volatile items and tobacco) declined a little in the quarter and were unchanged over the year.

Table 5.1: Measures of Consumer Price Inflation
Per cent

	Quarterly[a]		Year-ended[b]	
	September quarter 2016	June quarter 2016	September quarter 2016	June quarter 2016
Consumer Price Index	0.7	0.4	1.3	1.0
Seasonally adjusted CPI	0.4	0.6	–	–
– Tradables	0.4	0.7	0.7	0.0
– Tradables (excl. volatile items and tobacco)[c]	–0.2	-0.3	0.0	0.1
– Non-tradables	0.4	0.5	1.7	1.6
Selected underlying measures				
Trimmed mean	0.4	0.5	1.7	1.7
Weighted median	0.3	0.5	1.3	1.5
CPI excl. volatile items[c]	0.3	0.4	1.7	1.6

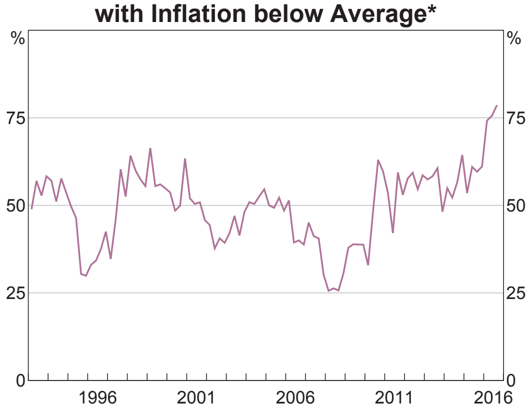
(a) Except for the headline CPI, quarterly changes are based on seasonally adjusted data; those not published by the ABS are calculated by the RBA using seasonal factors published by the ABS
(b) Year-ended changes are based on non-seasonally adjusted data, except for the trimmed mean and weighted median
(c) Volatile items are fruit, vegetables and automotive fuel
Sources: ABS; RBA

Graph 5.3
Non-tradable and Tradable Inflation*



* Adjusted for the tax changes of 1999–2000
** Excludes interest charges prior to the September quarter 1998 and deposit & loan facilities to June quarter 2011
*** Excludes volatile items (fruit, vegetables and automotive fuel) and tobacco
Sources: ABS; RBA

Graph 5.4
Share of CPI Items with Inflation below Average*

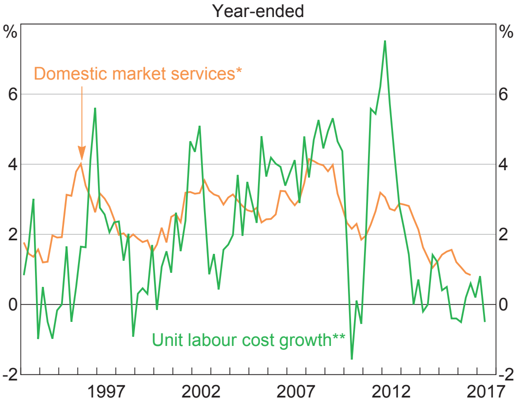


* Share of all CPI expenditure classes (by weight) with year-ended inflation below the item's average inflation rate (in most cases from 1993)
Sources: ABS; RBA

Low inflation has been broad based across the CPI components. Less than one-quarter of the components of the CPI basket have price growth above their long-run average (Graph 5.4). This includes tobacco, childcare and insurance. Tobacco has contributed around ⅓ percentage point to CPI inflation over the past year, largely due to increased excise taxes. Offsetting this, lower automotive fuel prices have subtracted around ⅓ percentage point from CPI inflation over the year. More recently, fuel prices have increased as global oil prices have moved higher, which if sustained will add a little to headline inflation.

Labour costs are an important determinant of inflation and there has been broad-based weakness in measures of labour cost growth (see below). The implications for inflation depend on how labour costs evolve relative to productivity. Unit labour costs have now been little changed for around five years, as low wage growth has been offset by productivity gains (Graph 5.5). Labour costs account for around one-half of final prices for market services; consistent with this, market services inflation is around its lowest level over the inflation-targeting period. In particular, prices for telecommunication equipment & services have fallen sharply over the past two years, reflecting increased competition and technological change in the industry.

Graph 5.5
Market Services Inflation
Year-ended



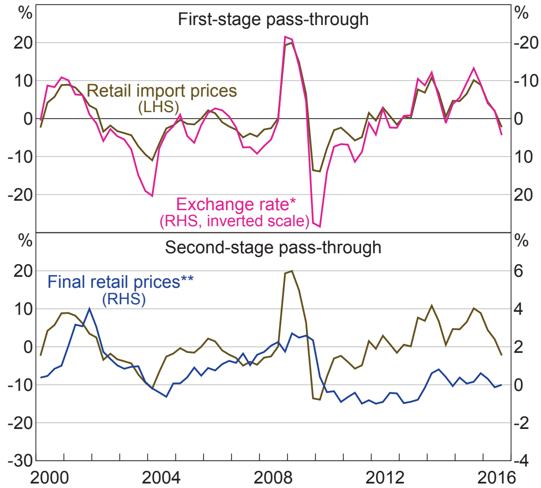
* Excludes interest charges prior to the September quarter 1998, deposit & loan facilities prior to the June quarter 2011, housing services and domestic travel; adjusted for the tax changes of 1999–2000

** Non-farm; moved forward by four quarters

Sources: ABS; RBA

In the retail sector, heightened competition has largely offset the effect of the higher cost of imported goods owing to the earlier depreciation of the exchange rate (Graph 5.6). These competitive pressures largely reflect the entry of overseas retailers.[1] In response to competitive pressures, firms have made efforts to reduce cost pressures along the supply chain, which is reflected in a pick-up over recent years in multifactor productivity growth in the wholesale and retail trade industries. Low wage

Graph 5.6
Retail Prices and the Exchange Rate
Year-ended percentage change



* Import-weighted index; quarter average

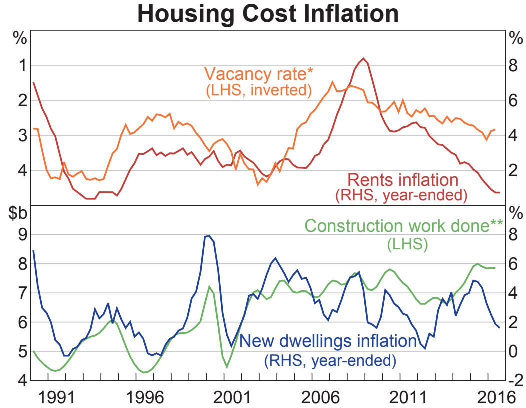
** Adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

growth has also contributed to low retail sector inflation. The effect of heightened competitive pressures on inflation is expected to wane over time, although the point at which this occurs is uncertain.

Rent inflation is well below its inflation-targeting average (Graph 5.7). Rents have continued to fall in Perth, in line with weak economic activity and a marked slowdown in population growth. In other capital cities, an increase in the supply of housing, particularly apartments, has contributed to low rent

Graph 5.7
Housing Cost Inflation



* Excludes Adelaide from March quarter 2015

** Private new detached housing; chain volume reference year is 2013/14; quarterly

Sources: ABS; RBA; REIA

1 For a more detailed discussion, see Ballantyne A and S Langcake (2016), 'Why Has Retail Inflation Been So Low?', RBA *Bulletin*, June, pp 9–17.

inflation. Further increases in housing supply over coming years is expected to result in a protracted period of low rent inflation.

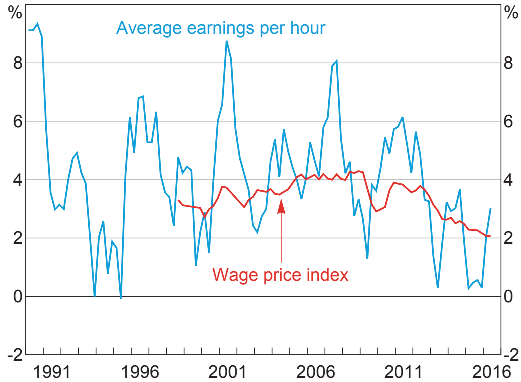
New dwelling price inflation has declined in year-ended terms since mid 2015. This slowing has been fairly broad based across all cities, which appears somewhat at odds with the continued solid level of activity in detached housing construction in Sydney and Melbourne. New dwelling costs are currently measured as the cost of constructing a new detached house and, as such, do not capture the cost of building an apartment where a lot of the activity has been concentrated. Material and labour cost growth remains subdued, although liaison has suggested that there are some pockets of wage pressures, such as for bricklayers, in the eastern states.[2] One potential explanation for subdued price pressures in the detached housing market is that heightened competition has meant builders have been focusing on reducing costs.

Utilities inflation is low relative to its inflation-targeting average. This largely reflects regulatory decisions, which have approved much smaller price rises than those that were granted in the late 2000s. Gas and water & sewerage inflation over the year is low relative to the inflation targeting period, and there were large price falls in the September quarter for a number of cities. In contrast, there were large increases in electricity prices in Sydney and Adelaide in the September quarter, driven in part by higher wholesale electricity costs; these wholesale cost pressures are expected to flow through to Melbourne retail electricity prices in the March quarter. Excluding utilities, administered price inflation is only a little below average levels.

Labour Costs

Wage growth appears to have stabilised, albeit at a low level (Graph 5.8). Growth in the private sector wage price index (WPI) has been stable for six quarters at an annualised pace of around 2 per cent. Year-ended growth in the public sector WPI also appears to have stabilised around 2½ per cent since early 2015. Wage growth is lower than average across all industries and states and the dispersion in wage growth across industries is at its lowest level since the series began in the late 1990s. Broader measures of labour costs also appear to have stabilised or even picked up. Growth in average earnings per hour from the national accounts (AENA) – which also captures non-wage costs as well as the effect of promotions and changes in the composition of employment – has picked up in recent quarters. There has been little change to unit labour costs over recent years as growth in labour costs have been matched by productivity gains.

Graph 5.8
Labour Costs
Year-ended growth



Source: ABS

The weakness in wage growth over recent years reflects a number of factors, some specific to Australia and others also evident in other countries. First, there has been some spare capacity in the labour market putting downward pressure on wage growth. While it is difficult to be precise, it is estimated that the current unemployment rate is a bit over ½ percentage point higher than full employment. Furthermore, as has been the case in other advanced economies in recent years, it appears that there has been some change in the historical relationship between wage growth and

2 The wage price index (WPI) shows low wage inflation for the construction industry, however this measure also includes wages for workers in non-residential and engineering construction where activity has been weaker. The WPI also does not measure income growth for subcontractors, who make up a high share of workers in the detached housing industry. There is some tentative evidence that the income growth of these subcontractors has picked up.

measures of spare capacity. There are a range of plausible structural and cyclical explanations for this: increased labour market flexibility may have provided firms with greater scope to adjust wages in response to changes in nominal revenue growth; workers may be putting more emphasis on job security than higher wage claims as a result of the global financial crisis or structural change; and/or reduced workers' pricing power as a result of increased competitive pressure from globalisation and technology.[3] The extent to which these factors persist will determine how quickly wage growth picks up as labour market conditions improve.

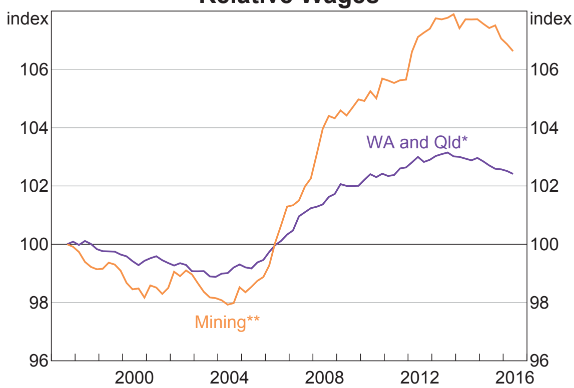
A second influence on wage setting has been low outcomes for headline inflation over the past couple of years and the associated decline in inflation expectations (at least over the short to medium term). Workers may have agreed to smaller wage increases given low actual and expected inflation.

A third factor weighing on wages growth has been increased efforts by firms to contain growth in labour costs. Over recent years, the sharp fall in the terms of trade, heightened competition (such as in the retail market) and spare productive capacity in product markets has weighed on firms' output prices.

Low wage growth in recent years has helped the economy adjust to the lower terms of trade. Combined with the depreciation of the nominal exchange rate since 2013, low growth in labour costs has improved Australia's international competitiveness. This is in contrast to the earlier period of sharply rising commodity prices and mining investment, during which Australia's unit labour cost growth outpaced that in many comparable countries, contributing to a decline in Australia's international competitiveness.

As the economy continues the transition away from mining-led activity, there are likely to be further adjustments to relative wages. Following a period of being above average, wage growth is currently lowest in industries and states that are more exposed to the end of the terms of trade and mining investment boom, and relative wages in these industries and states have started to turn lower (Graph 5.9). Liaison suggests that the movement of workers from higher-paying mining-related jobs to lower-paying jobs elsewhere in the economy is well advanced.

Graph 5.9
Relative Wages



* Wage Price Index in Western Australia and Queensland relative to the rest of Australia
** Wage Price Index in mining relative to all industries
Sources: ABS; RBA

Analysis of micro-level WPI data from the Australian Bureau of Statistics indicates there has been both a decline in the frequency of wage increases and in the average size of the increases in recent years.[4] In particular, the share of jobs that experienced wage growth in excess of 4 per cent has fallen sharply, largely reflecting a decline in large wage rises in mining-related jobs (Graph 5.10). Workers in around half of all jobs have received a wage increase of between 2–3 per cent. Only a small share of jobs has experienced a decline in wages, indicating downward nominal wage rigidity.

Inflation Expectations

Measures of inflation expectations have declined over the past year, consistent with low outcomes for CPI inflation, although consumers' short-term inflation expectations have been little changed

3 See Lowe, P (2016), 'Inflation and Monetary Policy', Address to Citi's 8th Annual Australian & New Zealand Investment Conference, Sydney, 18 October.

4 Further analysis of these data will be available in the September quarter 2016 Wage Price Index release (released 16 November 2016).

Graph 5.10
Wage Changes of Different Sizes
Share of jobs that experience a wage change

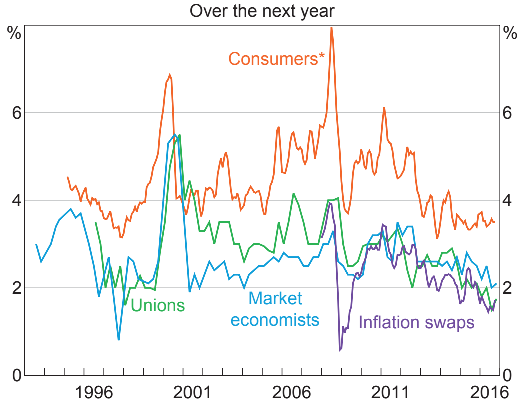
* Smoothed using a four-quarter trailing average
Sources: ABS; RBA

over the past year. More recently, one-year ahead inflation swaps have increased a little (Graph 5.11).

Survey-based measures of long-term inflation expectations remain around the mid-point of the inflation target (Graph 5.12). After falling sharply earlier in the year, financial market measures of inflation expectations have been more stable of late. Five-to-ten year inflation swaps, which capture expected average inflation over the period five-to-ten years ahead, have picked up modestly over the past few months, while inflation expectations based on 10-year bonds have been little changed since June at low levels. The 10-year indexed bond measure has declined over the past year by more than the five-to-ten year inflation swap measure. This is in part because it is an expected average inflation rate over the next 10 years and so is affected by expected low inflation in the near term.

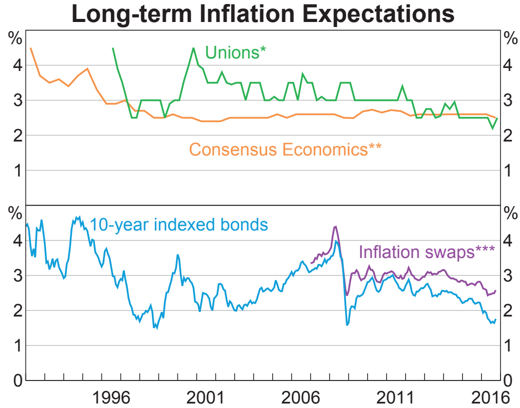
The financial market measures of inflation expectations can be affected by factors other than changes in investors' perceptions of expected future inflation, such as changes in the premium that investors' demand to bear inflation risk. Changes in this premium affect both the inflation swaps and bond-based measure of inflation expectations. The bond-based measure is also affected by changes in the liquidity of inflation-indexed bonds

Graph 5.11
Short-term Inflation Expectations
Over the next year



* Three-month moving average of the trimmed mean of survey responses
Sources: Australian Council of Trade Unions; Bloomberg; Melbourne Institute of Applied Economic and Social Research; RBA; Workplace Research Centre

Graph 5.12
Long-term Inflation Expectations



* Average over the next five to ten years
** Average over six to ten years in the future
*** Five-to-ten-year forward
Sources: Australian Council of Trade Unions; Bloomberg; Consensus Economics; RBA; Workplace Research Centre

relative to nominal bonds. Regulatory changes since 2008 may have led to a relative deterioration in liquidity of inflation-indexed bonds; this would tend to raise the yield on indexed bonds and depress the implied inflation rate. Bank estimates suggest that much of the decline in the bond-based measure over the past 12 months is due to changes in the liquidity and inflation risk premia rather than long-term expectations of inflation, which have been relatively little changed.