

## Equities

6 June 2012 | 40 pages

# What's In Store? Issue 49

## The Wardrobe Is Full – The Replacement Cycle in Retailing

### ■ Industry Overview

#### Craig Woolford

+61-2-8225-4302  
craig.woolford@citi.com

#### Michael Goltsman, CFA

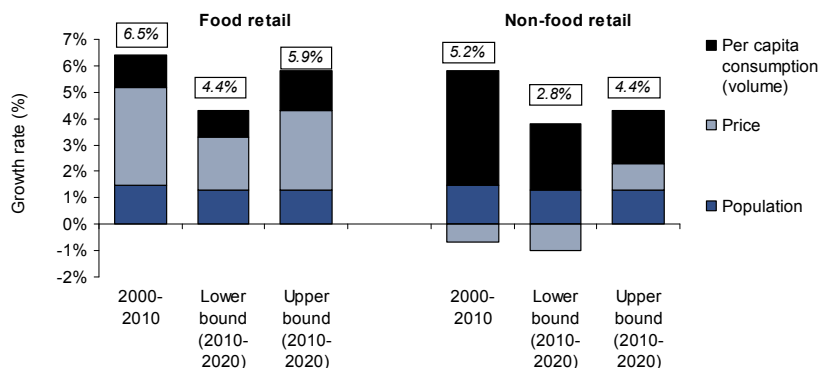
+61-2-8225-4836  
michael.goltsman@citi.com

#### Lokesh Gusain

lokesh.gusain@citi.com

- **How much more do shoppers need?** — The replacement cycle represents the speed at which shoppers re-purchase items. In Issue 49 of *What's In Store?*, we address this simple concept, which seems to have been overlooked by retailers. Over the past decade, more than three-quarters of volume growth in non-food retailing is attributable to a shorter replacement cycle. We believe it can't go on forever. Our analysis suggests a step down in sales growth to 3%-4% for non-food retailing over the next decade, while food retailing can manage 4%-6%. We have Buy ratings on Metcash and Woolworths.
- **The components of retail sales** — Retail spending represents its smallest share of household income on record, yet volumes consumed are at record highs. Over the past decade, per capita volume growth represented 4.3% of the 5.2% growth in non-food retailing.
- **Drivers of the replacement cycle** — We estimate households are replacing their clothing and electronics items every three years. Twenty years ago that replacement cycle was closer to 4.5 years. The biggest driver of replacement is price (affordability). However, we also note that homes have become larger and the number of people per home has fallen. An ageing population has also been a favourable driver.
- **Implications for retail spending** — The ability of retailers to rely on the replacement cycle will likely be challenged by a smaller tailwind in household formation and weaker innovation. We expect the next decade to see slower retail sales growth in non-food retail. Per capita volumes are likely to slow from 4.3% to 2.0%-2.5%. Food retailing volumes are likely to be modest, but price inflation assists that segment.
- **Citi Retail Sales Indicator up 2.9% in April 2012** — Retail spending trended lower in April 2012, dragged down by department stores and clothing retailers.

### Retail sales outlook for the next decade (volumes vs price)



Source: ABS, Citi Investment Research and Analysis estimates

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

# Contents

<b>What's In Store? Issue 49</b>	<b>3</b>
<b>Replacement cycles in retail</b>	<b>3</b>
1. The importance of replacement in retail spending	4
2. What drives the replacement cycle?	5
3. What are the implications for retail spending?	11
Appendix 1     Sales drivers over past ten years	13
Appendix 2     Our take on electronics CPI	14
<b>Retail sector overview</b>	<b>15</b>
Citi Retail Sales Indicator	15
Sector performance for April 2012	16
Key points	16
Sector specific performance – rolling 3 months to Apr '12	17
State based performance	18
Economic outlook	18
Consumer Sentiment	19
Weather	19
Petrol prices	20
Employment	21
Credit and debit card spending growth	21
Retail price inflation	22
Input cost pressures	23
On the move – transport indicators	24
Kiwi corner	25
Share price performance	26
<b>Valuation and financial performance</b>	<b>28</b>
Retail Sector Valuation	29
Retail Sector Financial Forecasts	30
<b>Appendix 3     Explanation of data</b>	<b>31</b>
<b>Appendix 4     Previous Issues</b>	<b>32</b>
<b>Appendix A-1</b>	<b>36</b>

## What's In Store? Issue 49

Retailing in Australia and overseas has relied on consumers more frequently updating their wardrobes and upgrading their electronics and furniture over the past ten years. In this issue of What's In Store?, we look at the shopper's replacement cycle as an influence on retail spending. In non-food categories, like clothing and electronics, more than three-quarters of the volume growth has been driven by a shorter replacement cycle. Price is the biggest influence. Bigger homes and innovation have also been large drivers. We expect a lack of replacement cycle compression to lead to softer retail sales trends over the next decade. We estimate 3%-5% growth in non-food retailing versus 5% in the past ten years. Food retailing looks much better placed with stronger pricing power. We have Buy ratings on Metcash and Woolworths.

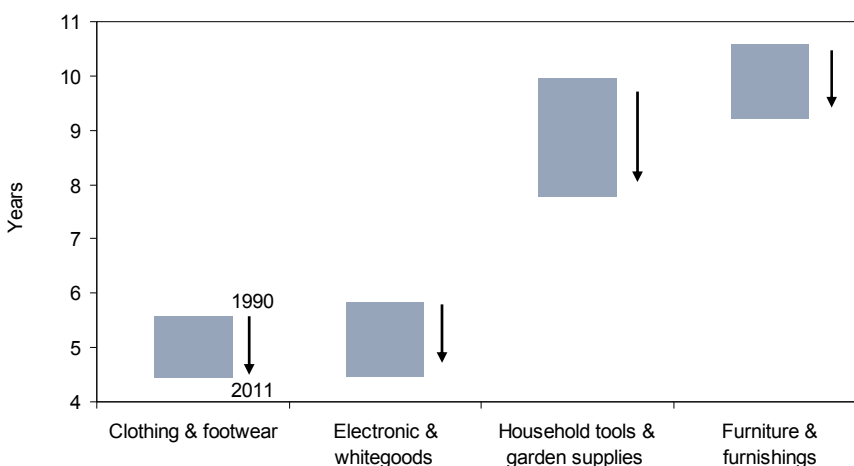
### Replacement cycles in retail

Australian retailing can be viewed through two very different lenses. Relative to income, never before have shoppers spent fewer dollars, but never before have they bought so many items. The replacement cycle for many retail items has shortened. On our calculations, greater per capita volumes account for over  $\frac{3}{4}$  of non-food retail sales growth, but only  $\frac{1}{5}$  of food retail sales growth. In this report we discuss:

1. The importance of the replacement cycle in driving retail spending.
2. The drivers behind the change in the replacement cycle.
3. A framework for future retail spending.

Figure 1 summarises our estimate of the changing replacement cycle in retail categories. As you can see from the chart, all categories have seen a shortening replacement cycle over the past 20 years. Whether that continues will depend on the key factors of price and demographic profile of shoppers and households.

Figure 1. The changing replacement cycle in retailing in years (1990-2011)



Source: Citi Investment Research and Analysis estimates

#### A note regarding What's In Store, Issue 48 on Shrinkage in Retail

Following the release of Issue 48, Super Retail Group (SUL) noted that its shrinkage rates are better than industry benchmarks in Supercheap Auto and BCF stores, near 1% of sales. Additionally, Rays Outdoors has opportunity to reduce shrinkage from 1.5% currently, as a share of sales. To see the report, click the link: [What's In Store? Issue 48](#).

## 1. The importance of replacement in retail spending

The replacement cycle is the speed at which households re-purchase items. The concept is simple but, in our view, over-looked in retailing as a key driver of spending. Given many retail categories have experienced deflation, or very limited price growth, the replacement cycle has been a key driver of revenue growth.

### The components of retail spending

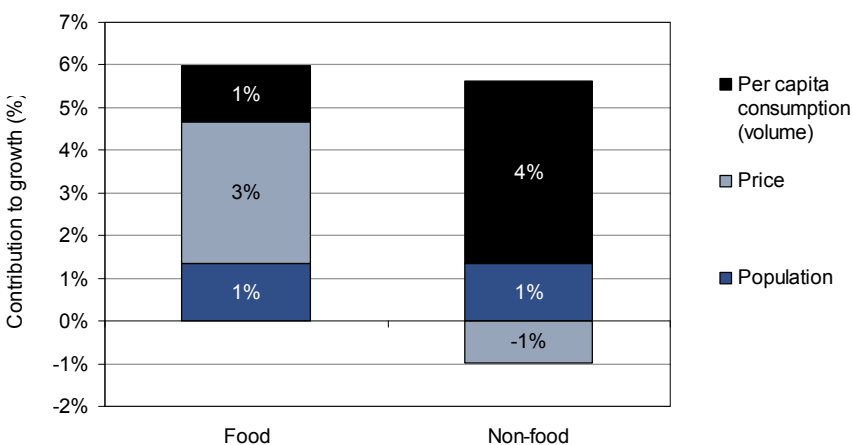
Over the past twenty years, retail spending has averaged 5.4% growth. Many of the discretionary retail categories have managed this growth without price rises over the entire period.

Since 1990, Australia has experienced:

- Food retailing compound annual growth rate (CAGR) of 6.1%.
- Non-food retailing CAGR of 4.6%.

Volume growth has been a key driver of retail sales in non-food retailing, while food retailing has relied on price. In Figure 2, we show the importance of the three components of population, price and per capita volume over the past twenty years.

Figure 2. Drivers of annual retail spending growth from 1990-2011 – the importance of volumes



Source: ABS, Citi Investment Research and Analysis

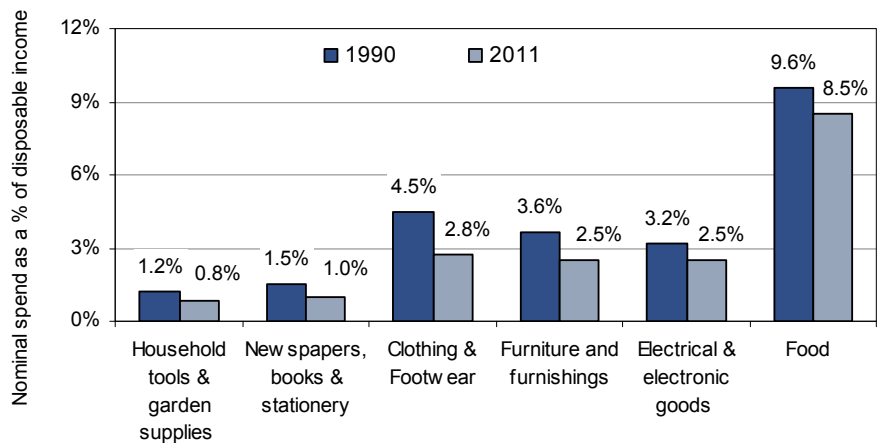
### Retailing is struggling to hold its share of household income

It is a troubling maxim in retailing. Never before have households consumed so much, yet retail spending is at its smallest share of overall spending. Lower prices have stimulated some demand, but strong household income growth has been diverted to other areas of consumer spending, such as housing (higher mortgage payments), health, education and recreational services.

In Figure 3 and Figure 4, we show retail spending as a share of household income in nominal dollars and then in terms of real volumes. All retail categories have fallen away in terms of nominal dollars. The worst performing category has been clothing. Australians now only spend 2.8% of their household income on clothing and footwear, down from 4.5% in 1990.

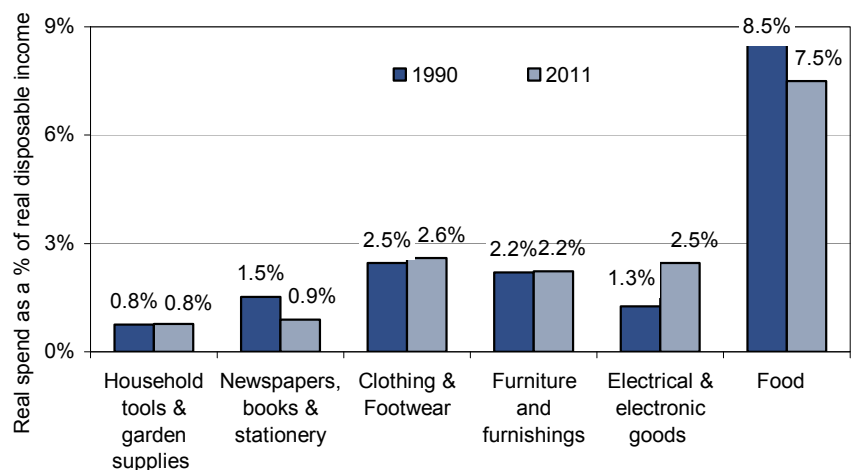
The contrast between the nominal figures and real figures in the charts below is important. The best example is electronics. Australians spend only 2.5% of their income on electronics, down from 3.2% in 1990. However, for that smaller outlay, volumes consumed have risen significantly from 1.3% in 1990 to 2.5% in 2011. Australians have shortened their replacement cycle on many discretionary retail items over the past ten years. We discuss further below.

**Figure 3. Nominal spending as a share of income**



Source: ABS, Citi Investment Research and Analysis

**Figure 4. Real spending as a share of income (volume)**



Source: ABS, Citi Investment Research and Analysis

## 2. What drives the replacement cycle?

In a well developed country like Australia, most retail products are well penetrated. The driver of volume is the need, or desire, to replace an item. How many shoppers update their clothes before they wear out? How many shoppers buy a new TV because it's a better picture quality or larger size?

The framework for our analysis is very intuitive. Retail sales are made up of the prices paid and volumes consumed.

The drivers of volume are the inventory a person can hold and the willingness to replace items. We show the basic equations in Figure 5. Volume growth can accelerate if:

- the consumer's inventory expands; or
- the replacement cycle shortens.

We believe the vast majority of retail sales growth in non-food retailing is a function of this replacement cycle shortening.

Figure 5. Framework for retail sales and the replacement cycle

**Annual retail sales = price x volume per year**

**Inventory = volume per year x replacement cycle (years)**

**Eg wardrobe = clothing bought each year x number of years held**

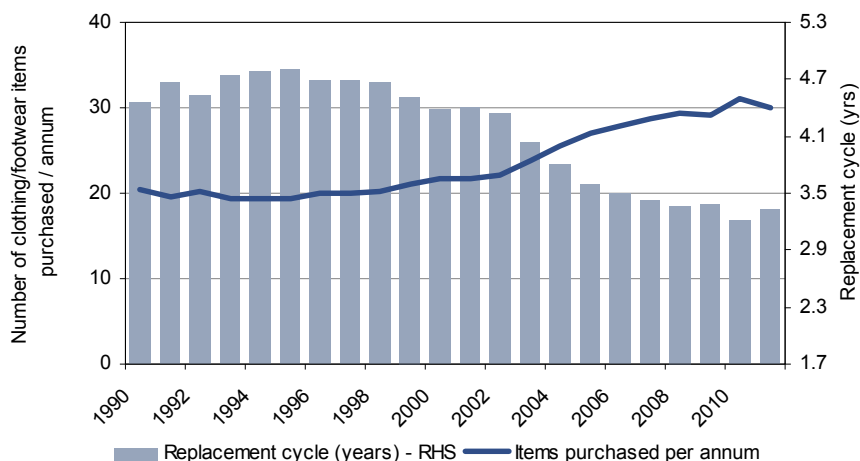
Source: Citi Investment Research and Analysis

### A case study of clothing

We assess the replacement cycle by looking at prices and spending per capita. Total clothing and footwear sales were \$25 billion in FY11. That equates to \$1,108 per person. In 1990, the per capita spend was \$708. That is a 57% increase. According to CPI figures, clothing and footwear prices are only up 7% over the same time period. Therefore volumes per capita consumed have risen 47% to close the loop on these statistics.

On our estimates, Australians now replace their clothes approximately every three years, compared with every 4.5 years in 1990. We assume a 10% increase in the wardrobe size. The remainder of the increase in volume is a reflection of a shorter replacement cycle. We summarise the changing nature of the replacement cycle in Figure 6.

Figure 6. Replacement cycle trend vs CPI trend in Clothing & Footwear (1990-2011)



Source: ABS, Citi Investment Research and Analysis

The analysis we have run on clothing has similar conclusions in other retail categories. We summarise the change in per capita volumes and the replacement cycle in years in Figure 7.

Figure 7. Change in replacement cycle in years (1990 to 2011)

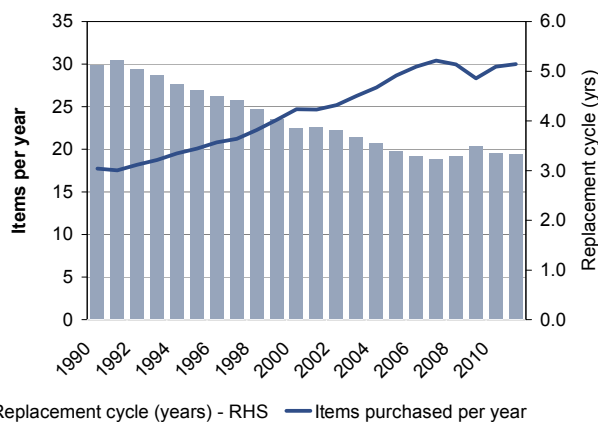
Category	Change in per capita volumes	1990 replacement cycle	2011 replacement cycle
Newspapers, books & stationery	-13%	7 days	9 days
Clothing & footwear	47%	4.5	3.3
Electronic & whitegoods	115%	4.5	3.1
Household tools & garden supplies	53%	7.8	5.6
Furniture & furnishings	29%	9.2	7.9

Source: ABS, Citi Investment Research and Analysis estimates

### It's a global trend in clothing

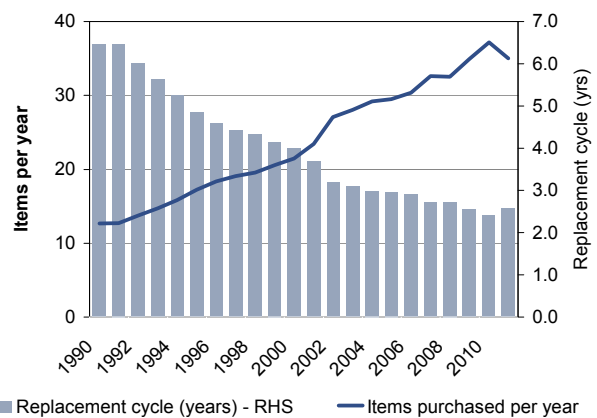
The trends in falling replacement cycles are witnessed in the US and UK. In both countries we see volume growth outpacing population trends. The UK market is most dramatic with more steady and rapid falls in the replacement cycle. We expect the strength of hypermarkets and fast fashion retailers has driven the accelerating consumption trends. These are ultimately linked to price deflation.

Figure 8. Replacement cycle trend vs CPI trend in US Clothing & Footwear (1990-2011)



Source: Bureau of labor standards, Bureau of economic analysis, CIRA

Figure 9. Replacement cycle trend vs CPI trend in UK Clothing & Footwear (1990-2011)



Source: Office of national statistics, CIRA

### Replacement cycle factors

Understanding the factors driving the consumer's replacement cycle is a critical input to the retail sales outlook. We see price as the most important attribute. Below we list the items we see as formative in changing the replacement cycle.

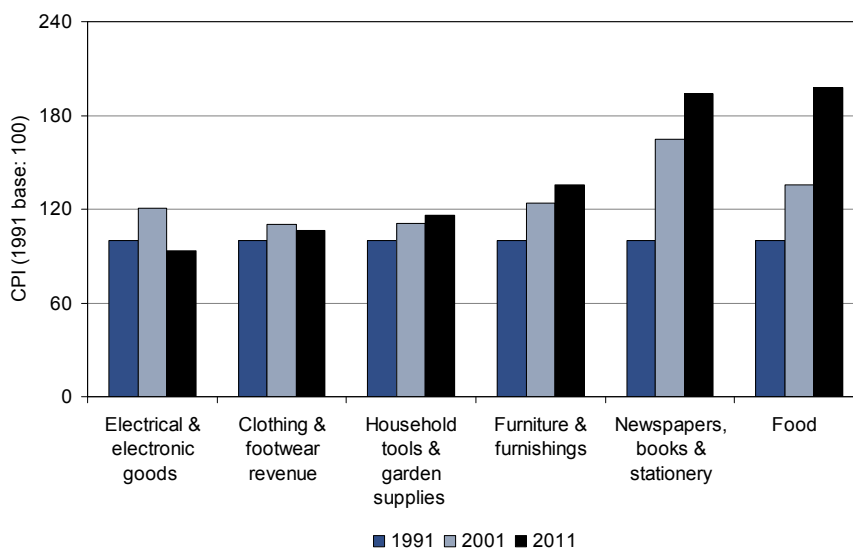
1. Price
2. Income
3. Innovation & technology (eg flat panel TV)
4. Household formation
5. Average age of population

## Price

The influence of price is significant as affordability is the most fundamental driver of volume growth and replacement of items. We show the CPI index levels across a range of retail categories in Figure 10. What is notable is a lack of price growth across electronics, clothing and household tools. Food retailing has displayed the strongest pricing power, a key rationale for our positive view on supermarkets.

In the chart below, we present an adjusted electronics CPI. The sub-component of AV/IT shows deflation of 88% since 1990. While technically true of the models of TVs and computers from that era, the relevance is limited. Quality adjustments are most significant. We show estimates of price in the electronics category, by looking at popular models and the average price paid. See Appendix 2 for more detail.

Figure 10. CPI by category (1991 vs. 2001 vs. 2011)\*



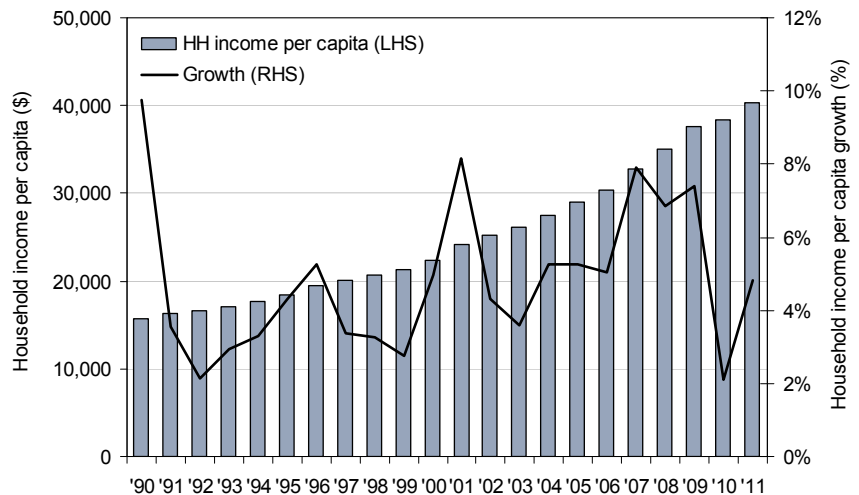
\* Citi adjustment applied to electronics. See Appendix 2.  
Sources: ABS, Citi Investment Research and Analysis

## Income

Household income growth has been significant since 1990. The average growth has been 4.6% per annum. We show the per capita income in 2011 at over \$40,000 compared with \$16,000 in 1990. While most retail items have become more “affordable” for Australian shoppers, households have directed some of that income elsewhere.



Figure 11. Australian household income per capita



Source: ABS, Citi Investment Research and Analysis

## Innovation & technology

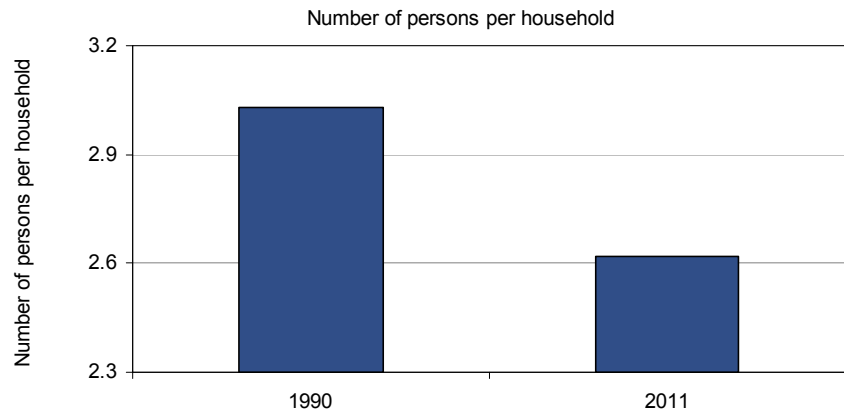
The innovation and technology advances are primarily seen in the audio-visual and IT segments of retailing. In these categories, innovation in computer games, portable music players and digital cameras have all sparked a significant shift in the number of electronics items per household over the past decade.

We attempt to measure the “innovation” in electronics as the shift in consumption from the household expenditure survey between 2003 and 2010. These are new products households had not itemised before, such as portable music players. We estimate one-fifth of the growth in revenue in electronics is new product innovation. The remaining four-fifths is a combination of shorter replacement cycles, population and price deflation.

## Household formation

The nature of housing status will influence retail spending. A single home dwelling has to replicate many of the retail needs of a household with four people. Also, more living rooms and bedrooms typically mean more retail products. We show a chart below of the number of people per household, which now sits at 2.6 people, down from 3.0 people in 1990.

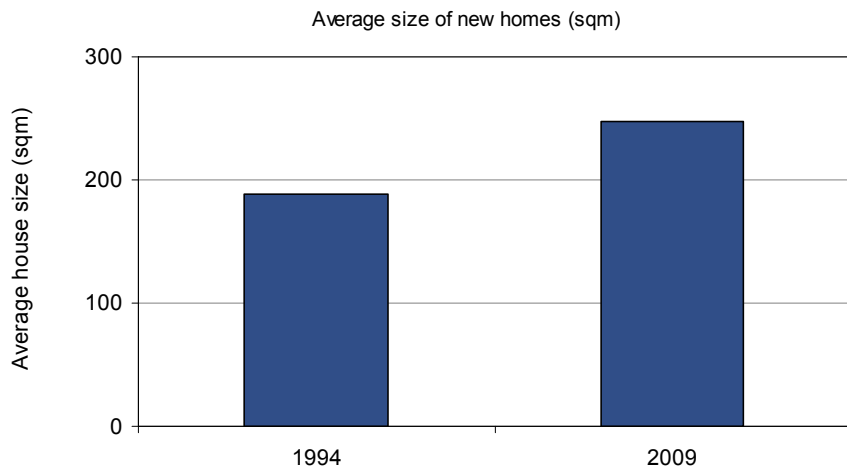
Figure 12. Number of persons / household (1990 vs. 2011)



Source: ABS, Citi Investment Research and Analysis

The average home size for new construction has increased markedly over the past 20 years. In Figure 13, we show the average size of a new home has increased by 31%, or by 59 square metres. It seems homes have bigger garages and bedrooms to fill with clothing, electronics and hardware. However, we expect the pace of expansion in home size will slow, given weaker housing affordability and rising construction costs.

Figure 13. Average size of new household construction (1990 vs. 2011)

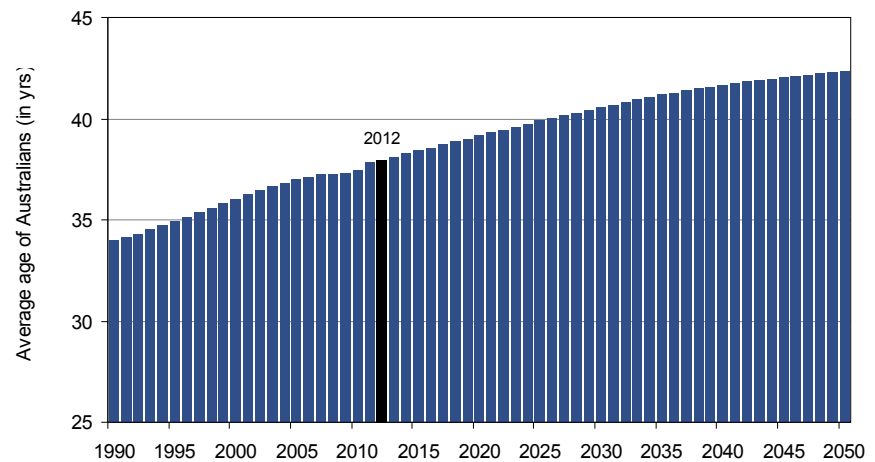


Sources: ABS, Citi Investment Research and Analysis

## Age

According to household expenditure surveys, per capita spending does not peak until people reach their late 40s or 50s. This lifecycle for spending reflects disposable income available. The “average age” of an Australian is 38 years old. Australia still has an ageing population, but the curve flattens slightly. The ageing population curve will be slightly positive for retail sales.

Figure 14. Average Australian age (1990-2050F)



Sources: ABS, Citi Investment Research and Analysis

### 3. What are the implications for retail spending?

The past decade in retailing was shaped by a compression in the replacement cycle. No doubt the next decade will also have its distinctions. We discuss a framework for spending over the next decade, which paints a picture that replacement cycle will be difficult to leverage as a driver of retail sales growth. We expect non-food retail spending to step down to 3%-4% growth. Food retailing is likely to range between 4%-6% growth.

#### Two scenarios

We present two scenarios for the next decade of retail spending:

- The past ten years were a one-off event and the replacement cycle stabilises (lower bound).
- The cycle shortens further (upper bound).

Our lower bound essentially drives retail spending off population growth and pricing.

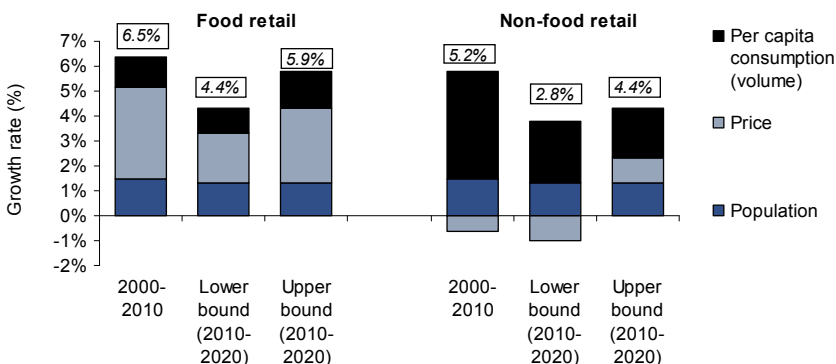
Our upper bound has volume growth, but is more conservative than the past decade because income, house formation and innovation are likely to be smaller contributors. We expect the ageing population and price deflation to stimulate demand in non-food categories.

We expect reasonable boundaries for retail spending are:

- Food retail – 4.4% to 5.9% (compared with past decade of 6.5%)
- Non-food retail – 2.8% to 4.4% (compared with 5.2% over the past decade).

We show our outlook for retail spending in Figure 15.

Figure 15. Retail sales outlook for the next decade

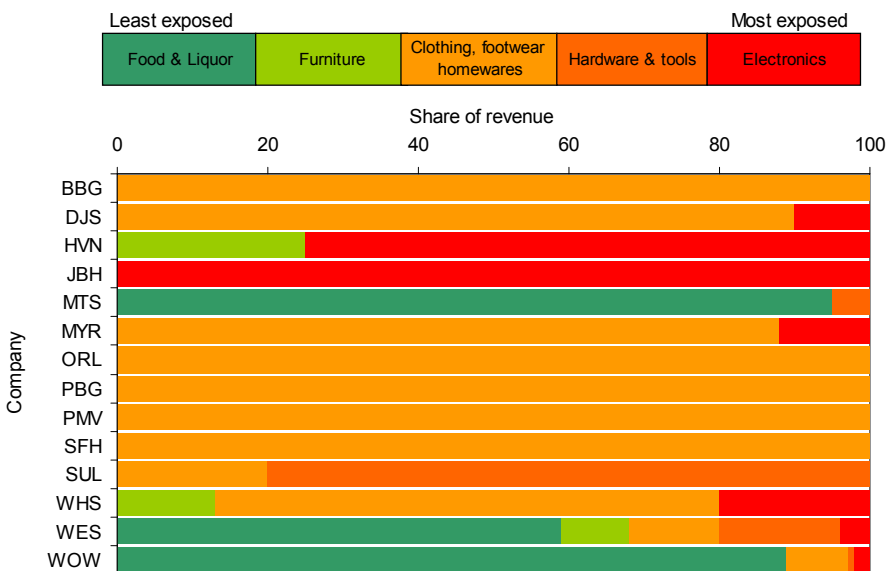


Source: ABS, Citi Investment Research and Analysis estimates

### Company level perspective

Our replacement cycle framework for retail spending is most positive for food retailing and most negative for electronics. Clothing retailers are vulnerable too. We summarise the product category exposures of our retailers under coverage. In our view, the best placed businesses are Metcash and Woolworths where we have Buy ratings.

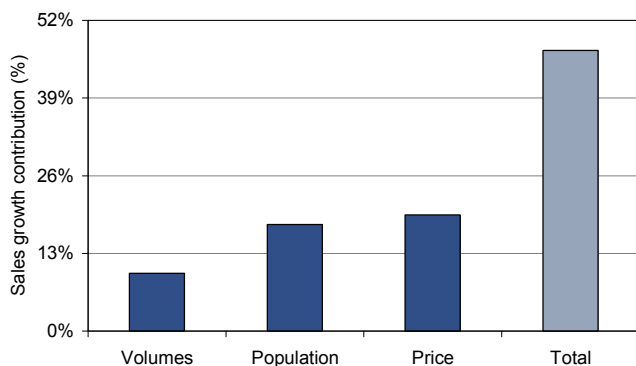
Figure 16. Retailer exposure to retail categories



Source: Citi Investment Research and Analysis estimates

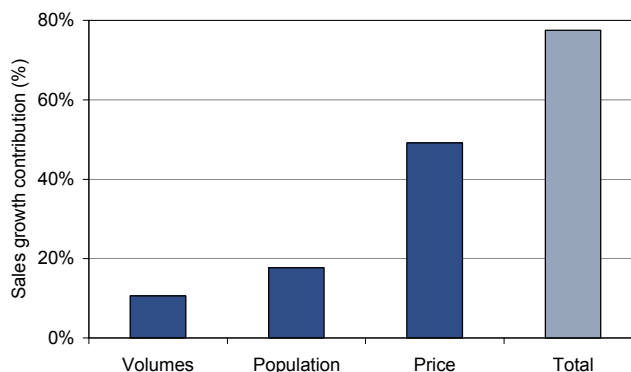
## Appendix 1 Sales drivers over past ten years

Figure 17. Newspaper and stationary sales growth breakup (2000-2010)



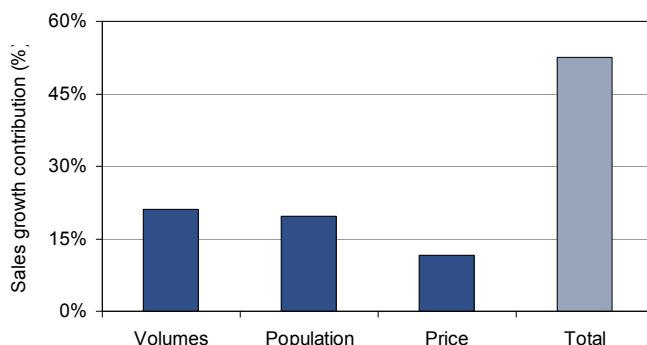
Source: ABS, Citi Investment Research and Analysis

Figure 18. Food sales growth breakup (2000-2010)



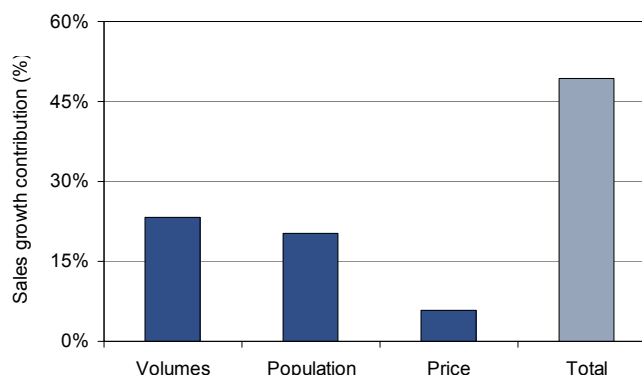
Source: ABS, Citi Investment Research and Analysis

Figure 19. Furniture and furnishings sales growth breakup (2000-2010)



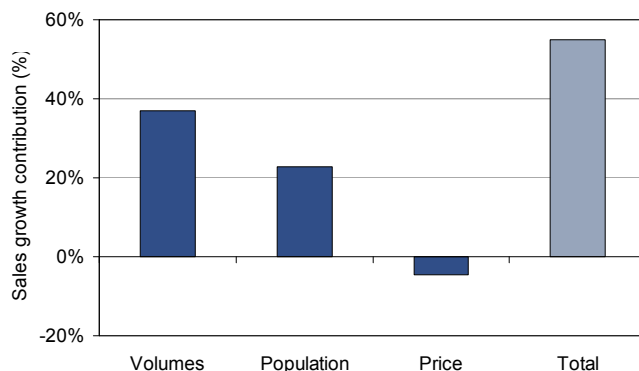
Source: ABS, Citi Investment Research and Analysis

Figure 20. Household tools sales growth breakup (2000-2010)



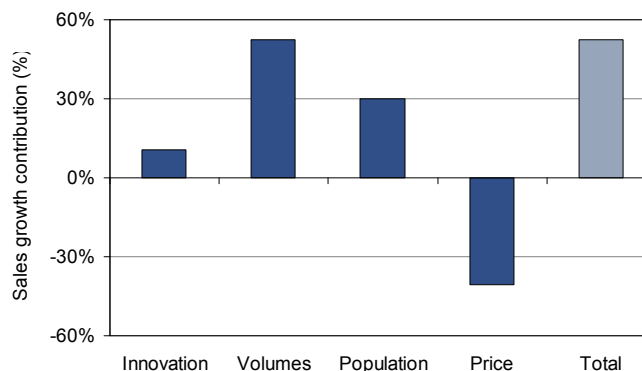
Source: ABS, Citi Investment Research and Analysis

Figure 21. Clothing and footwear sales growth breakup (2000-2010)



Source: ABS, Citi Investment Research and Analysis

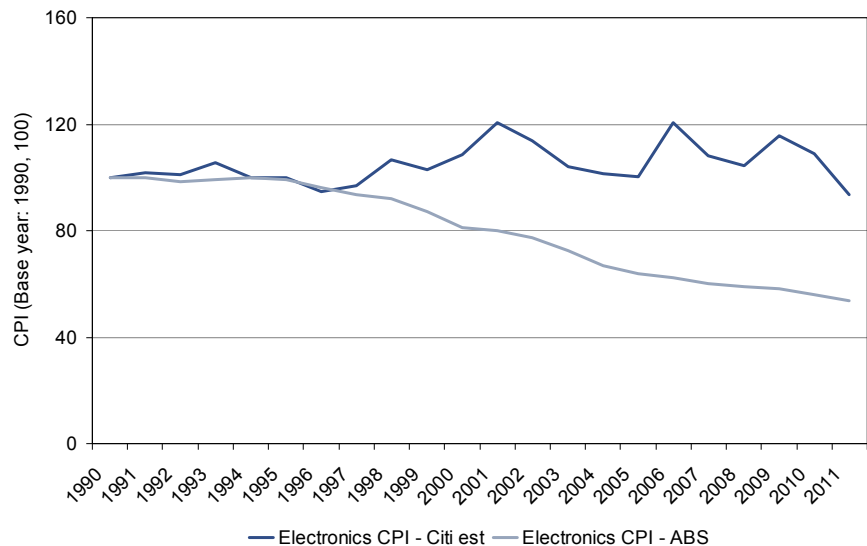
Figure 22. Electrical and electronics sales growth breakup (2000-2010)



Source: ABS, Citi Investment Research and Analysis

## Appendix 2 Our take on electronics CPI

Figure 23. Electronics CPI (ABS vs. Citi estimates)



Sources: ABS, DisplaySearch, Citi Investment Research and Analysis

As shown in Figure 23, our CPI estimate for electronics is down 7% between 1990-2011 vs. the ABS estimate of a 46% decline. We explain the deviation in detail below.

We use four components of electronics as a proxy for total inflation in the category. These are:

- Small household appliances: 15% weighting
- Large household appliances: 15% weighting
- Software (CDs, DVDs and computer games): 20% weighting
- Audio visual equipment: 50% weighting

We directly take the ABS CPI for the first three components. For audio and visual equipment, we highlight that ABS is still using the old models, which have experienced drastic deflation in the past decade. In our estimates, we also include new technologies (LCDs, Plasmas and LEDs) to make the CPI meaningful with the current usage patterns.

We have taken DisplaySearch average per unit TV prices (converted to Australian dollars) starting 2004<sup>1</sup>. Before that, only 1986 and 1996 prices (in US\$) are available for consistent screen size<sup>2</sup> CRTs. For the gap years, we derive annual prices by applying the CAGR between 1986-1996 and 1996-2004.

<sup>1</sup> The agency includes both volume and value data for all display units (CRTs, LCDs, Plasmas) across sizes to derive a cumulative average price per unit.

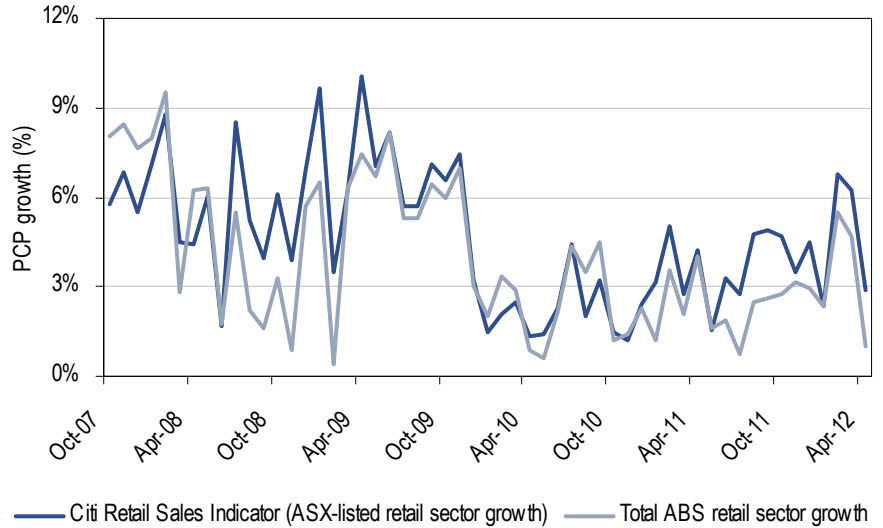
<sup>2</sup> We use 19 inch CRTs assuming they were most popular during those times. Data is sourced from old newspaper articles and advertisement archives

## Retail sector overview

### Citi Retail Sales Indicator

Citi's Retail Sales Indicator measures the growth of retail sales weighted by the categories relevant to ASX-listed retailers. The indicator grew 2.9% in April 2012, above the ABS total retail sales growth of 1.0% mainly due to a greater weight assigned to supermarkets vs. other categories.

Figure 24. Citi Retail Sales Indicator (retail sector sales growth for ASX-listed companies)



Source: ABS, Citi Investment Research and Analysis

## Sector performance for April 2012

Figure 25. Retail category monthly growth rate on pcp (%)

Month ended:	Apr-11	Mar-12	Apr-12
Supermarkets	4.2	5.5	2.5
Department stores	6.0	2.1	-5.5
Clothing	2.6	1.8	-3.5
Furniture	11.0	-1.0	-7.0
Electrical	-6.3	4.8	0.2
Hardware	3.1	-2.3	-1.2
Total (Industry)	4.0	4.7	1.0

Sources: ABS, Citi Investment Research and Analysis

ABS retail sales for April 2012 slowed considerably. Retail sales grew 1.0% yoy, down from 4.7% growth in March 2012, using original data. The slowdown was widespread and reflects an earlier Easter and school holidays that pulled-forward demand into March. Furniture and department stores had the largest slowdown.

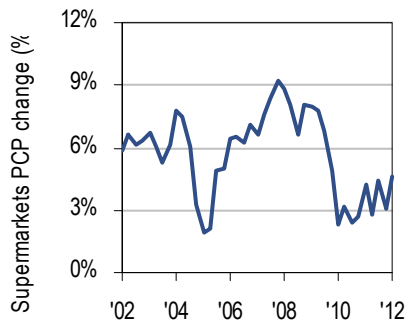
### Key points

- **Supermarkets up 2.5%** – Supermarket sales dipped to 2.5% growth from 5.5% in March 2012. Our feedback suggests that sales growth softened across the market. However, Coles continues to outperform Woolworths. Out-of-home food spending remains strong rising 6.9% in April 2012.
- **Department stores down 5.5%** – Department store sales remain highly volatile, with sales declining 5.5% in April following a 2.1% increase in March 2012. Myer highlighted at its 3Q12 sales result that the key driver for its softening sales has been a fall in foot-traffic rather than price deflation.
- **Clothing specialties down 3.5%** – Clothing specialty sales declined by 3.5% in April 2012. The clothing market remains highly promotional which is dampening sales. Weather is no excuse, in our view, because temperatures in April were within 0.5-1.0 degree Celsius compared with last year.
- **Electrical up 0.2%** – Electrical sales were flat in April 2012. The backdrop has been slightly more stable in a category that was decimated by deflation in 2011. The lack of a good product innovation pipeline means growth remains slow in electronics.
- **Hardware down 1.2%** – Hardware had a decline of 1.2% in April 2012, a continued slowdown. The category appears to be correcting after strong demand in 2011 associated with flood events. Deflation is also a factor in slower sales growth.
- **Furniture down 7.0%** – Furniture retailers experienced a large 7.0% sales decline in April 2012. A slowdown in housing and renovation activity has impacted spending.



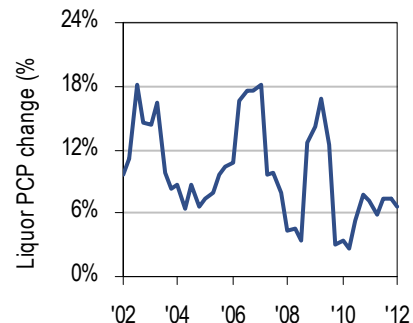
## Sector specific performance – rolling 3 months to Apr '12

Figure 26. Supermarkets



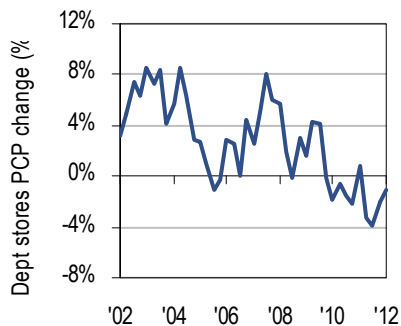
Source: ABS 8501.0

Figure 27. Liquor retailing



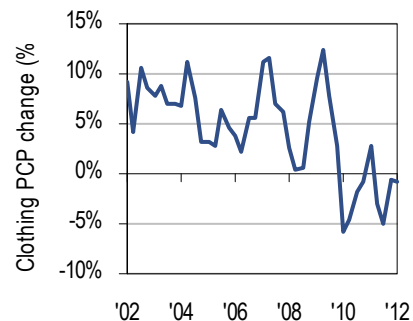
Source: ABS 8501.0

Figure 28. Department stores



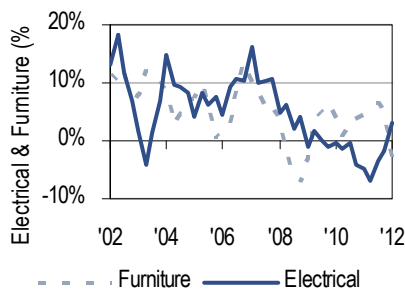
Source: ABS 8501.0

Figure 29. Clothing



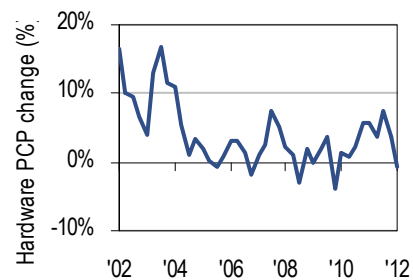
Source: ABS 8501.0

Figure 30. Electrical and Furniture



Source: ABS 8501.0

Figure 31. Hardware

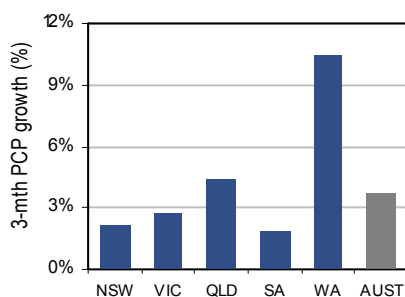


Source: ABS 8501.0

## State based performance

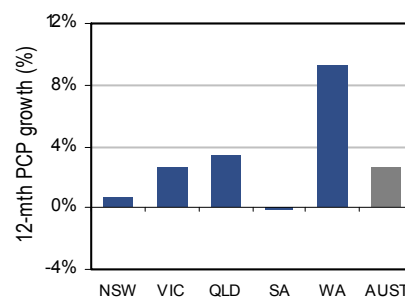
Figure 32 and Figure 33 show the quarterly and yearly sales growth performance for each state respectively.

Figure 32. 3-month sales growth by state



Source: ABS 8501.0

Figure 33. 12-month sales growth by state



Source: ABS 8501.0

## Economic outlook

Citi Economists forecast a slightly slower pace of improvement in GDP growth in 2013, mainly as the mining strength is largely offset by weakness in other sectors.

Figure 34. Citi economic forecasts for Australia

Calendar year	2011	2012	2013
GDP growth	1.90%	2.80%	3.50%
CPI	3.10%	2.00%	3.10%
Unemployment rate (end of period)	5.30%	5.40%	5.00%

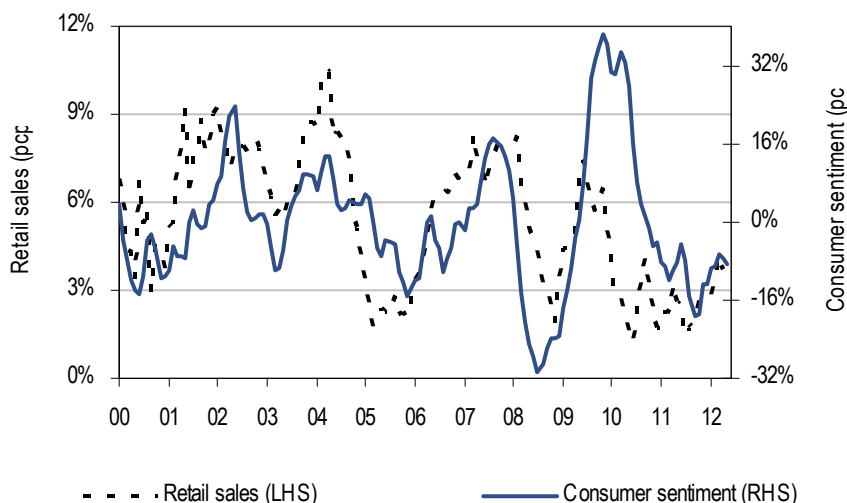
Period	01-Jun-12	Jun-12	Jun-13
Cash rate	3.75%	3.75%	3.50%
AUD/USD	0.97	0.96	0.94

Note: Forecast data as of 1<sup>st</sup> June 2012; Source: Citi Investment Research and Analysis

## Consumer Sentiment

We find the change in consumer sentiment has a strong co-incident correlation with retail spending. In the most recent reading for May 2012, consumer sentiment was at 95.3. This is up 0.8% vs. April 2012, but 8.3% lower compared to the prior year.

Figure 35. Consumer sentiment and retail sales

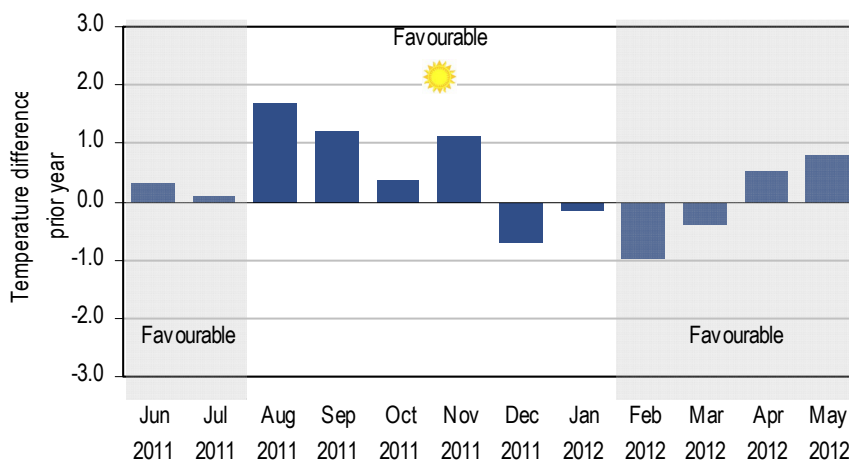


Source: Westpac, ABS, Citi Investment Research & Analysis

## Weather

Figure 36 shows the weighted average temperature difference to the prior year, in the past 12 months. While February and March were favourable for winter clothing retail, April & May were adversely effected by warmer winter.

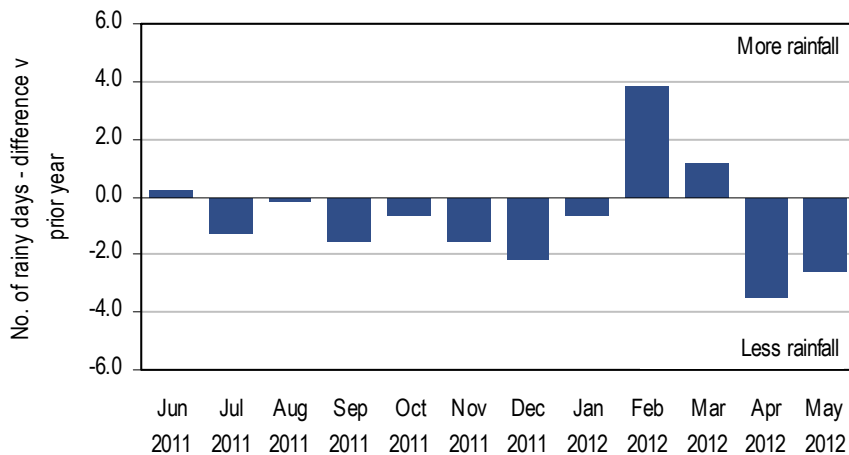
Figure 36. Temperature change - weighted national average



Source: BOM, Citi Investment Research & Analysis

Figure 37 shows the weighted average difference in rainfall days to last year.

Figure 37. Rainfall change – weighted national average

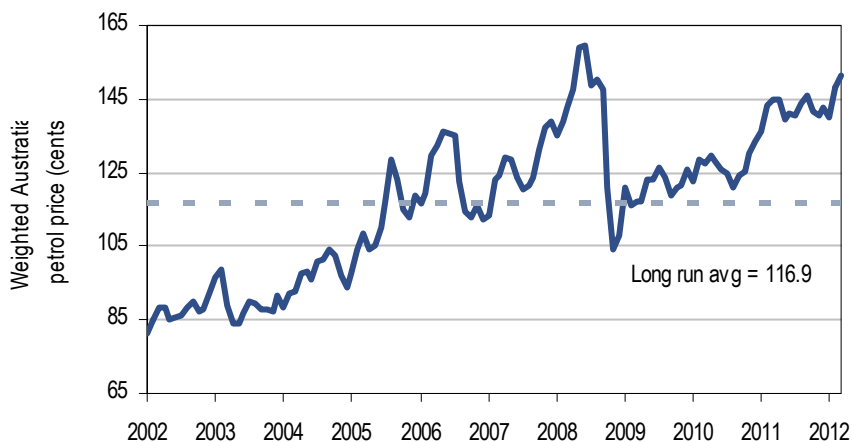


Source: BOM, Citi Investment Research & Analysis

## Petrol prices

Petrol prices averaged 151.7 cents per/litre in April 2012. Prices are 4.8% higher compared to the last year. Continued rises in the price of petrol, despite falling global oil prices, are draining the available household income for retail purchases.

Figure 38. Australian petrol prices

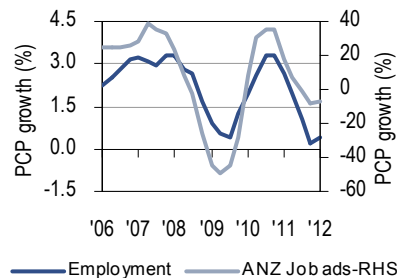


Source: Aust. Automobile Association

## Employment

The jobs market recovered in 2010 and 2011 after a sharp decline during the 2008-09 global financial crisis. However, the job ads growth has become lumpy since November 2011, with the latest reading at -0.4% for April 2012. While the overall employment is still in growth, we note that (1) the rate of increase is below 0.5% now and (2) unemployment rate is starting to increase. The mining boom is being offset by weakness in other sectors.

Figure 39. Employment and job ads growth



Source: ABS, ANZ

Figure 40. Unemployment rate

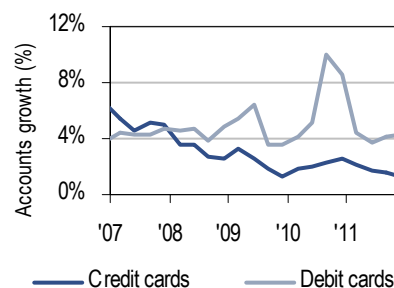


Source: ABS

## Credit and debit card spending growth

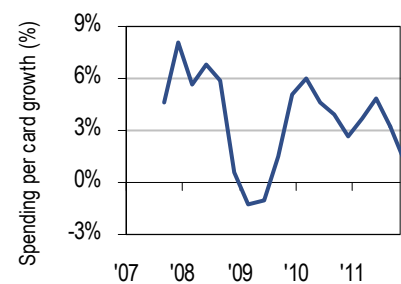
We show in Figure 41 to Figure 44, key Australian credit and debit card statistics. Debit card growth accelerated in 2011 through a combination of strong account growth and increased spending per debit card holder. This contrasts with credit card accounts that have had slowing spending growth per credit card.

Figure 41. Credit and debit card accounts



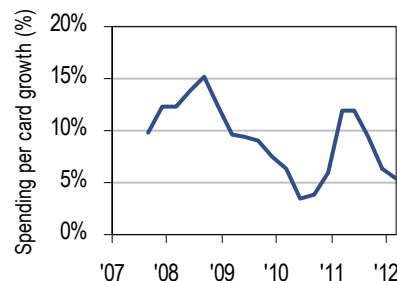
Source: RBA

Figure 42. Spending per credit card holder



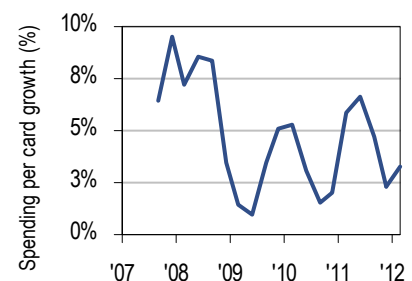
Source: RBA

Figure 43. Spending per debit card holder



Source: RBA

Figure 44. Spending per all card holders



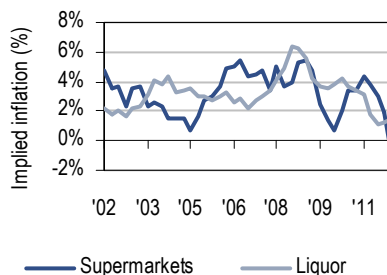
Source: RBA

## Retail price inflation

- **Food & Liquor** – Supermarkets inflation turned negative in the March quarter mainly driven by heavy deflation in fresh produce. Liquor inflation however remained positive as brewers continued to compromise volumes for additional pricing.
- **Clothing** – Cotton retail prices remained flat (down 0.3%) in the March 2012 quarter. This compares to the inflationary December quarter (+1.4%). Cotton price inflation is now flowing through to retail but the competitive landscape is an offset.
- **Electronics** – Supply disruptions and high metal prices are adding inflationary pressure to electrical items in the short term. However, this is likely to be offset by intense competition between suppliers. The category continued to be in a deflationary trend in the March 2012 quarter.

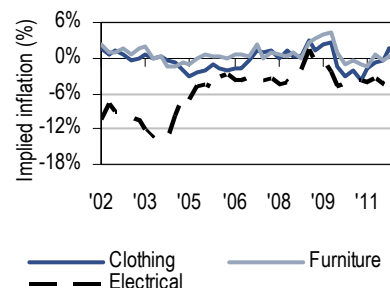
We show implied retail price inflation for a number of key categories in Figure 45 and Figure 46 below.

Figure 45. Food and Liquor inflation



Source: ABS, Citi Investment Research & Analysis

Figure 46. Non-food sector inflation



Source: ABS, Citi Investment Research & Analysis

## Input cost pressures

- **Food & Liquor** – Input prices declined 7% on pcp, in the three months to May 2012 mainly driven by lower coffee, wheat, sugar and dairy, partly offset by inflation in rice and canola oil.
- **Clothing** – Cotton prices have softened since their highs in February 2011. There is usually a 6-9 month lag between changes in spot prices and retail shelf prices. Overall, our input cost basket deflation continued in the 3-month period to May 2012.
- **Electronics** – Deflation in core electronic components (LCD, monitor, and NAND) continued to keep the category deflationary in the three months to May 2012. Our input basket declined by 2% in the 3-months to May 2012.

We show our Citi input cost monitor for May 2012 on a monthly and rolling-three month basis in Figure 47 and Figure 48 below.

Figure 47. Citi input cost monitor (1 mth)

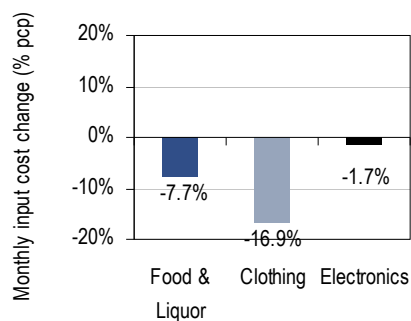
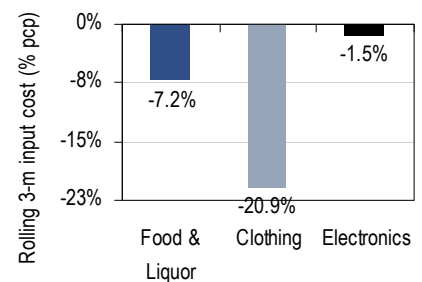


Figure 48. Citi input cost monitor (3 mths)

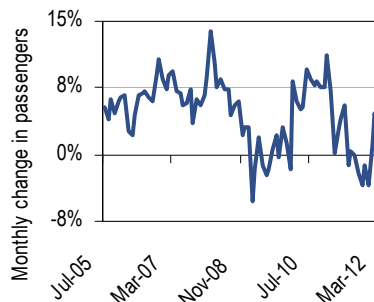


Source: Citi Investment Research and Analysis

## On the move – transport indicators

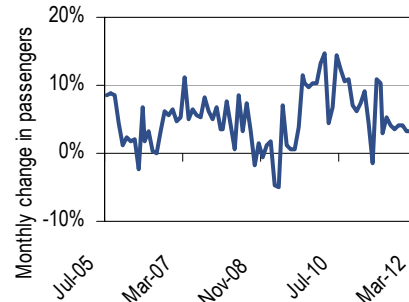
In Figure 49 to Figure 52, we show areas where consumers are “on the move”. We include air and road transport indicators as a guide to business and consumer activity. International travel remains strong, while domestic road-traffic has slowed, a sign of weaker domestic activity.

**Figure 49. Change in domestic air passenger traffic (monthly)**



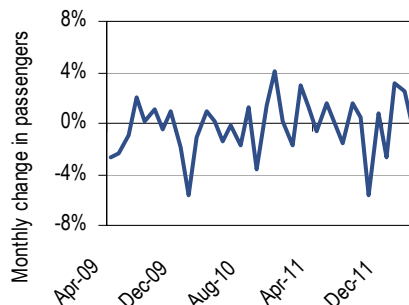
Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 50. Change in international air passenger traffic (monthly)**



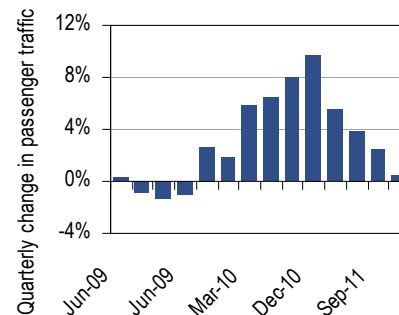
Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 51. Automotive fuel sales change against pcg**



Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 52. Change in quarterly road traffic volume at tolled roads**



Source: Transurban, Citi Investment Research and Analysis



## Kiwi corner

In Figure 53 we show Citi forecasts for New Zealand's key economic variables.

**Figure 53. Citi economic forecasts for New Zealand**

Calendar year	2011	2012	2013
GDP growth	1.30%	1.80%	2.30%
CPI	2.60%	2.20%	2.40%
Unemployment rate (end of period)	6.50%	6.40%	5.60%

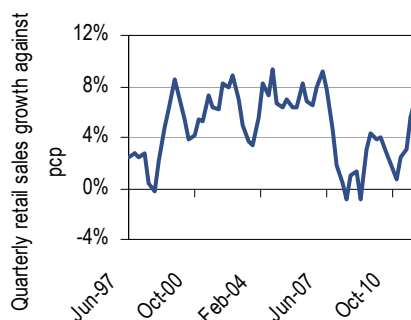
  

Period	01-Jun-12	Jun-12	Jun-13
Cash rate	2.50%	2.50%	2.50%
NZD/USD	0.75	0.74	0.72

Note: Forecast data as of 1<sup>st</sup> June 2012; Source: Citi Investment Research and Analysis

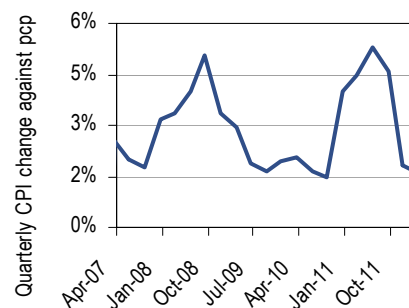
In Figure 54 to Figure 57, we show New Zealand's retail sales growth, CPI growth, unemployment rate and electronics cards transaction growth. In Figure 58 and Figure 59, we show the stock performance chart for selected New Zealand stocks in retail.

**Figure 54. Retail sales growth**



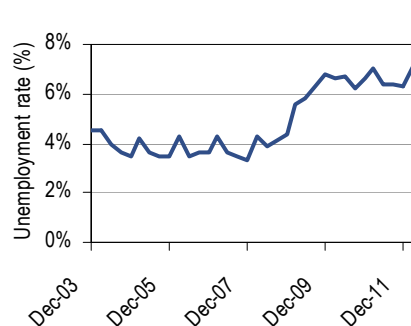
Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 55. CPI growth**



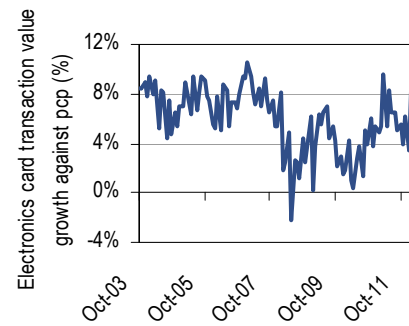
Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 56. Unemployment rate**



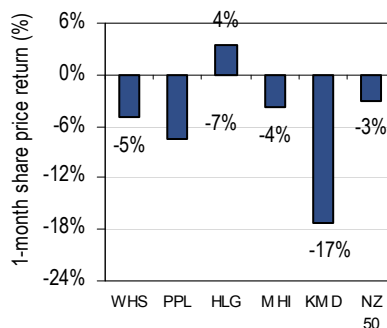
Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 57. Electronic card transaction value growth**



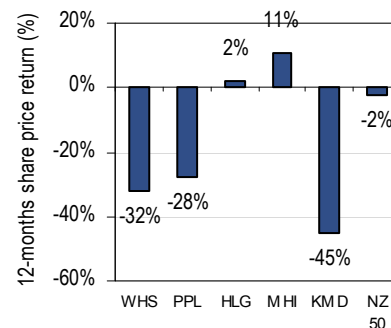
Source: Statistics New Zealand, Citi Investment Research and Analysis

**Figure 58. Stock performance chart - 1 month return**



Note: Market data as of 4<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

**Figure 59. Stock performance chart - 12 months return**

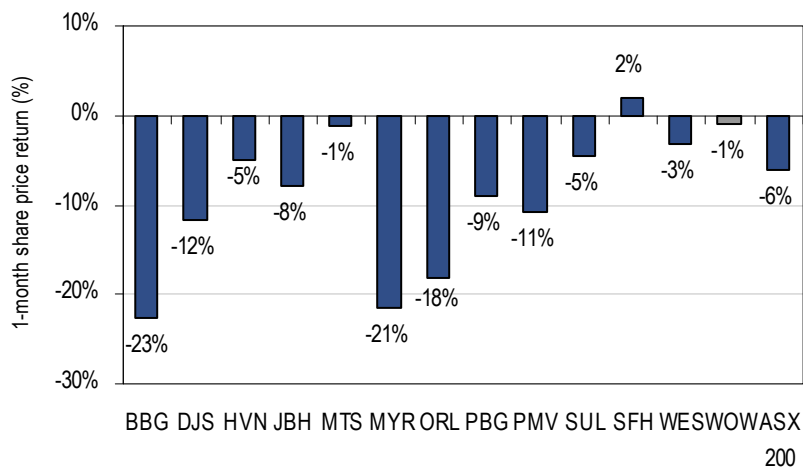


Note: Market data as of 4<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

## Share price performance

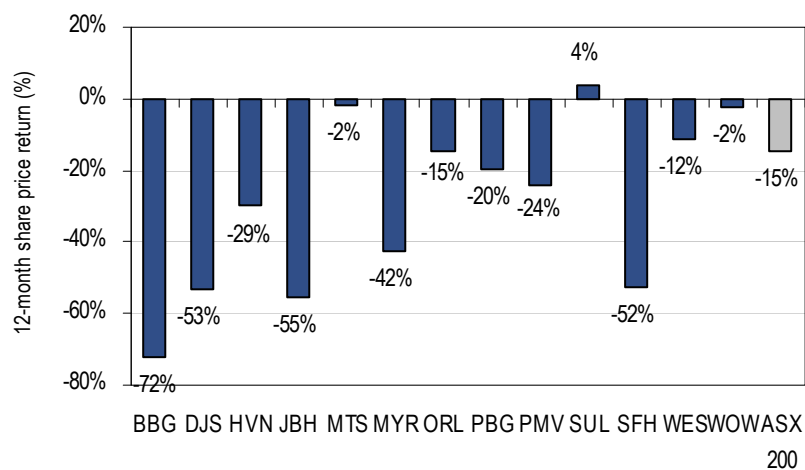
In Figure 60 and Figure 61 we show the 1-month and 12-month share price performance of listed Australian retailers and the ASX 200 Index.

**Figure 60. 1-month share price return for Australian retailers**



Note: Market data as of 4<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

Figure 61. 12-month share price return for Australian retailers



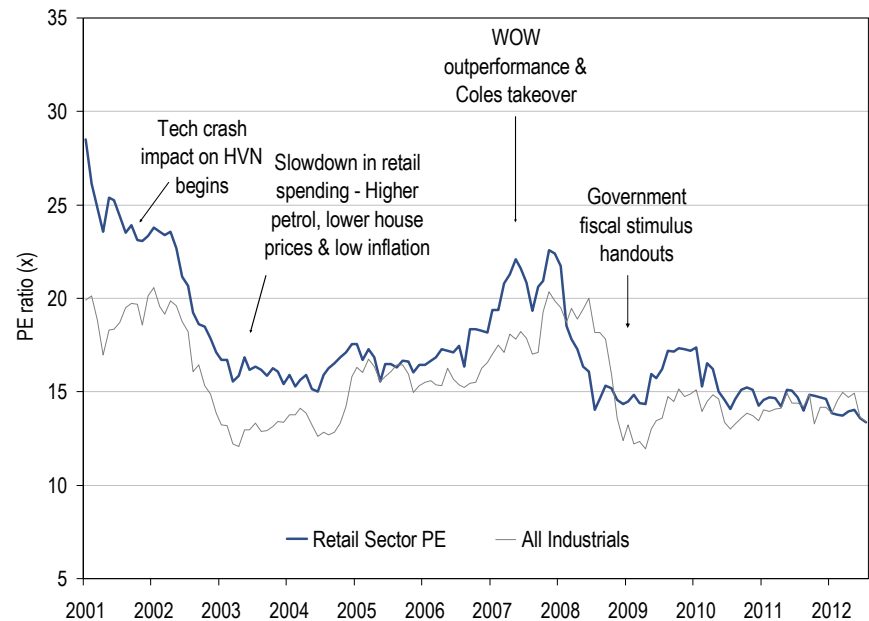
Note: Market data as of 4<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

## Valuation and financial performance

Figure 62 shows that the retail sector PE is currently trading at a 19% discount to its five year average. The discount reflects concern for discretionary retailers due to the uncertain recovery in retail spending activity.

---

Figure 62. Retail sector PE ratio



Note: Market data as of 4<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

---

## Retail Sector Valuation

Figure 63. . Retail sector valuation metrics

Company	Rating	Target price (A\$)	Share price (A\$)	EV/EBIT FY12e	EV/EBIT FY13e	P/E FY12e	P/E FY13e	Div yield FY12e	Div yield FY13e	FCF yield FY12e	FCF yield FY13e
<b>Supermarkets</b>											
Woolworths Ltd (WOW.AX)	1	28.30	26.32	10.9	10.0	14.8	13.7	4.8%	5.2%	2.0%	4.7%
Wesfarmers Ltd (WES.AX)	2	29.60	29.20	11.7	11.0	15.6	14.2	5.7%	6.3%	1.7%	3.5%
Metcash Ltd (MTS.AX)	1	4.75	3.95	8.6	8.0	11.4	10.3	7.0%	7.3%	6.2%	10.1%
<b>Global comparable</b>				<b>7.7</b>	<b>7.5</b>	<b>10.9</b>	<b>10.1</b>	<b>4.1%</b>	<b>4.7%</b>		
<b>Department Stores</b>											
David Jones Ltd (DJS.AX)	2	2.30	2.12	7.2	7.4	9.8	10.3	9.5%	9.4%	11.2%	7.7%
Myer Holdings Ltd (MYR.AX)	2	2.05	1.83	6.3	6.3	7.6	7.8	11.0%	10.4%	14.8%	11.7%
<b>Global comparable</b>				<b>8.8</b>	<b>8.2</b>	<b>12.1</b>	<b>10.0</b>	<b>2.3%</b>	<b>2.4%</b>		
<b>Electrical Retailers</b>											
Harvey Norman Holdings Ltd (HVN.AX)	2	1.95	1.86	7.7	7.1	10.9	9.3	4.8%	5.4%	3.8%	5.6%
JB Hi-Fi Ltd (JBH.AX)	2	10.80	8.59	6.4	5.8	8.1	7.8	7.7%	8.4%	9.8%	10.3%
<b>Global comparable</b>				<b>3.7</b>	<b>4.2</b>	<b>12.9</b>	<b>8.1</b>	<b>0.5%</b>	<b>2.4%</b>		
<b>Surf/Street wear</b>											
Billabong International Ltd (BBG.AX)	2	2.80	1.85	8.0	6.6	7.4	6.3	3.2%	4.3%	3.4%	16.5%
<b>Global comparable</b>				<b>10.9</b>	<b>9.0</b>	<b>15.7</b>	<b>13.4</b>	<b>1.6%</b>	<b>1.7%</b>		
<b>Wholesaler</b>											
Pacific Brands Ltd (PBG.AX)	1H	0.90	0.55	5.6	4.5	7.1	5.2	7.3%	10.0%	-66.8%	22.2%
<b>Global comparable</b>				<b>10.1</b>	<b>8.7</b>	<b>14.8</b>	<b>13.8</b>	<b>0.7%</b>	<b>0.9%</b>		
<b>Clothing retailing</b>											
Premier Investments Ltd (PMV.AX)	2	5.60	4.59	5.7	5.1	12.3	11.1	7.9%	7.9%	9.7%	9.2%
Specialty Fashion Group Ltd (SFH.AX)	1H	0.60	0.50	31.1	7.9	76.9	10.8	0.0%	2.0%	10.8%	6.9%
<b>Global comparable</b>				<b>13.9</b>	<b>12.6</b>	<b>20.2</b>	<b>18.1</b>	<b>3.1%</b>	<b>3.5%</b>		
<b>Luxury Goods</b>											
OrotonGroup Ltd (ORL.AX)	2	8.40	6.96	7.7	6.8	11.0	9.8	7.4%	8.1%	9.4%	11.0%
<b>Global comparable</b>				<b>11.4</b>	<b>9.7</b>	<b>16.4</b>	<b>14.4</b>	<b>2.5%</b>	<b>2.8%</b>		
<b>Auto-parts retail</b>											
Super Retail Group Ltd (SUL.AX)	2	7.50	6.93	9.9	8.5	13.5	11.8	4.7%	5.1%	6.1%	5.2%
<b>Global comparable</b>				<b>9.3</b>	<b>8.4</b>	<b>14.9</b>	<b>13.1</b>	<b>0.2%</b>	<b>0.2%</b>		

Note: Market data as of 5<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

## Retail Sector Financial Forecasts

Figure 64. Citi retail sector forecasts

	Woolworths	Wesfarmers	Metcash	David Jones	Myer	Harvey Norman	JB Hi-Fi	Billabong	Pacific Brands	Premier Investments	Specialty Fashion Group	Oroton Group	Super Retail Group
	WOW	WES	MTS	DJS	MYR	HVN	JBH	BBG	PBG	PMV	SFH	ORL	SUL
<b>Sales (\$m)</b>													
FY11a	54,143	54,513	12,364	1,962	3,159	6,176	2,959	1,685	1,615	876	569	164	1,092
FY12e	56,588	57,208	12,819	1,873	3,118	5,797	3,116	1,691	1,372	836	568	181	1,651
FY13e	59,798	59,912	13,004	1,897	3,167	5,794	3,235	1,603	1,383	875	565	193	1,959
<b>Sales growth (%)</b>													
FY11a	4.7%	5.9%	7.4%	-4.4%	-5.0%	1.6%	8.3%	13.6%	-7.3%	-0.3%	-0.4%	12.3%	16.5%
FY12e	4.5%	4.9%	3.7%	-4.5%	-1.3%	-6.1%	5.3%	0.3%	-15.0%	-4.5%	-0.2%	10.2%	51.1%
FY13e	5.7%	4.7%	1.4%	1.3%	1.6%	0.0%	3.8%	-5.2%	0.8%	4.6%	-0.5%	6.3%	18.7%
<b>EBIT margin (%)</b>													
FY11a	6.1%	5.7%	3.5%	12.6%	8.2%	25.3%	6.6%	8.9%	11.5%	7.4%	4.0%	22.2%	8.0%
FY12e	6.0%	6.0%	3.5%	8.8%	7.6%	21.8%	5.2%	6.4%	9.5%	9.1%	0.7%	21.6%	9.6%
FY13e	6.2%	6.2%	3.8%	8.9%	7.4%	23.9%	5.3%	7.0%	11.3%	9.5%	2.5%	22.4%	10.1%
<b>Core EPS (cents)</b>													
FY11a	173.6	166.3	33.3	32.4	27.8	22.4	124.0	47.0	11.1	33.0	7.6	60.6	40.1
FY12e	178.0	187.4	34.0	20.7	23.8	17.1	105.4	25.0	7.7	37.6	0.6	63.8	51.4
FY13e	191.8	205.9	37.7	20.6	23.3	19.9	110.5	29.5	10.5	41.7	4.6	71.7	58.7
<b>EPS growth (%)</b>													
FY11a	6.4%	15.6%	4.3%	-1.9%	-5.6%	-17.8%	14.3%	-18.6%	14.4%	-21.1%	-51.8%	8.0%	22.4%
FY12e	2.5%	12.7%	2.0%	-36.0%	-14.4%	-23.9%	-14.9%	-46.8%	-30.4%	14.0%	-91.4%	5.3%	28.3%
FY13e	7.8%	9.9%	10.9%	-0.9%	-1.8%	16.8%	4.8%	18.0%	35.9%	11.0%	610.0%	12.4%	14.1%
<b>DPS (cents)</b>													
FY11a	122.0	150.0	27.0	28.0	22.5	12.0	77.0	29.0	6.2	36.0	4.0	50.0	27.3
FY12e	126.0	165.0	27.5	19.5	20.0	9.0	66.0	6.0	4.0	36.0	0.0	52.0	32.5
FY13e	138.0	185.0	28.5	20.0	19.0	10.0	72.0	8.0	5.5	36.0	1.0	57.0	35.5
<b>ROE (%)</b>													
FY11a	28.0%	7.7%	17.9%	22.0%	18.7%	11.7%	49.2%	9.9%	-10.3%	3.4%	25.5%	84.9%	19.4%
FY12e	24.7%	8.2%	8.8%	13.9%	16.2%	9.1%	56.8%	6.7%	-33.2%	4.9%	2.3%	82.2%	17.1%
FY13e	27.4%	9.4%	21.9%	14.0%	15.5%	8.4%	46.7%	6.5%	11.5%	5.4%	14.6%	79.5%	16.4%
<b>Working cap to sales (%)</b>													
FY11a	-1.2%	3.8%	4.7%	4.7%	-0.2%	8.9%	5.5%	22.5%	19.3%	3.8%	0.4%	14.1%	17.6%
FY12e	-1.2%	3.5%	4.2%	2.5%	-0.4%	8.8%	5.2%	19.9%	21.4%	3.2%	0.2%	15.6%	14.9%
FY13e	-1.5%	3.0%	3.9%	2.5%	-0.5%	9.1%	4.6%	18.4%	20.1%	2.4%	0.9%	14.8%	14.1%
<b>Capex to sales (%)</b>													
FY11a	3.9%	3.8%	0.3%	4.1%	4.3%	5.6%	1.5%	3.1%	1.3%	2.6%	6.0%	3.8%	3.4%
FY12e	4.1%	4.6%	0.6%	4.1%	1.9%	3.8%	1.7%	5.5%	1.6%	1.9%	2.4%	2.6%	2.8%
FY13e	3.5%	4.1%	0.4%	4.2%	3.5%	2.5%	1.7%	4.2%	1.5%	2.8%	2.6%	2.2%	2.7%
<b>EBITDA interest cover (x)</b>													
FY11a	15.8	10.6	7.3	40.8	9.5	13.7	55.4	8.3	5.8	nm	28.5	40.0	11.2
FY12e	14.5	11.4	7.1	21.0	9.4	9.0	14.9	5.2	5.2	nm	13.3	38.7	7.9
FY13e	16.6	12.8	7.4	17.4	9.3	9.3	15.6	6.9	7.1	nm	22.6	45.3	7.3

Note: Market data as of 5<sup>th</sup> June 2012; Source: Citi Investment Research and Analysis

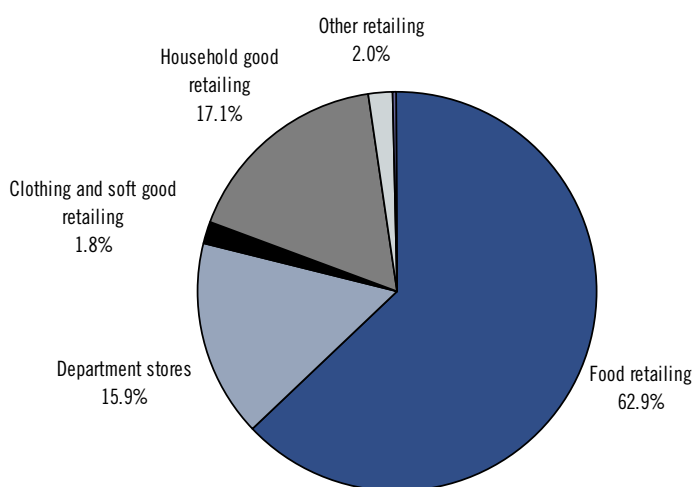
## Appendix 3 Explanation of data

### Retail sales indicator

The Citi Retail Sales Indicator comprises of a basket of listed retail sector companies with market capitalisations above \$100 million. We calculate our indicator by weighting each retail category within the Australian Bureau of Statistics (ABS) Retail Trade series, by the total listed company sales mix. Figure 31 shows the sales base of the listed company's, with an obvious bias towards Food retailing, given Woolworths and Wesfarmers' inclusion.

---

Figure 65. Listed company sales base assumption



Source: Citi Investment Research & Analysis

---

### Retail sales and prices

Industry retail sales performance is compared to the previous corresponding period, by category and is presented on a rolling quarterly basis. The data supplied by the ABS. We assess real growth and the implied inflation by category using chain volume data supplied by the ABS.

### Weather

We use a weighted average of the yearly difference in monthly maximum temperature readings from each major Australian capital city. The maximum temperature reading by capital city is supplied by the Bureau of Meteorology.

### Petrol

We use the average unleaded petrol price for each capital city in Australia to derive a weighted national petrol price. Our weights are population based.

### Valuation and financial forecasts

Our sector PE chart is derived from the one year-forward PE's. We weight each company's by the respective market capitalisation to compute our sector PE.

The remainder of the financial forecasts within the 'Valuation' section are Citi's forecasts.

## Appendix 4 Previous Issues

### Issue 39 (8 July 2011)

#### Where does the Household Savings Rate Settle?

Companies mentioned: WOW, MTS, JBH, DJS, MYR, HVN

### Issue 39: Where does the Household Savings Rate Settle?

The Australian household has had a reality check over the past three years. After drawing on savings for many years, they have now developed a more rational balance between spending and saving. In this issue of What's In Store?, we assess the outlook for the household savings rate and implications for retail spending. The fifty year average for savings is 8.8% of income and the current run-rate is 8.9%. In our view, the likely range is 8%-14%, with three factors to watch – house prices, interest rates and the AUD/USD. The implications for retail spending are sub-trend growth and we expect all discretionary categories to be affected. Food retailers are clearly more defensive, but discretionary retailers are already trading depressed PE ratios that reflect a weak outlook.

[Where Does the Household Savings Rate Settle?](#)

### Issue 40 (16 August 2011)

#### Demystifying Retail Leases

Companies mentioned: WOW, JBH, DJS, MYR, HVN, WES, SUL, PMV

### Issue 40: Demystifying Retail Leases

Leases are prevalent in Australian retailing and can be a source of cost pressure in a slow sales environment. In Issue 40 of What's In Store?, we delve into the detail to understand the nature of retail lease agreements and the implications for profit margins. "Anchor" tenants, such as Wesfarmers and Woolworths, and high profile retailers like JB Hi-Fi are best placed because their lease agreements typically provide for turnover contingent rents that ensure lease costs remain fairly constant with sales. However, specialty retailers like Premier Investments need sales growth ahead of inflation to avoid rental cost ratios escalating. We also explore the implications of placing leases on balance sheet, which may eventuate under new accounting rules. The most significant increase in balance sheet gearing is for Myer and Premier Investments.

[Demystifying Retail Leases](#)

### Issue 41 (9 September 2011)

#### Retailers addicted to discounts

Companies mentioned: WOW, JBH, DJS, MYR, SFH, SUL, PMV

### Issue 41: Retailers addicted to discounts

Retailers are searching for new ways to grow their profits. The focus is increasingly shifting to higher gross profit margins. In Issue 41 of What's In Store?, we assess the scope to reduce discounting. In our view, the discounting over the past year has been driven by the pass through of the higher Australian dollar. Retailers are more prepared to use discounts, rather than lower shelf price points in such an environment. The implication for retailers like David Jones, Myer and Premier Investments is that lower levels of discounting will be difficult to achieve unless shelf prices are reduced, or lower volumes budgeted for. We have Hold ratings on these retailers and see better value in electronics retailers JB Hi-Fi and Harvey Norman where valuation multiples are more attractive.

[Retailers addicted to discounts](#)

### Issue 42 (6 October 2011)

#### FY11 results - Trying to Protect Margins

Companies mentioned: WOW, WES, MTS, HVN, JBH, DJS, MYR, BBG, PMV, PBG, SUL, SFH

### Issue 42: Trying to Protect Margins

Retail reporting season has drawn to a close for FY11. The results were mixed, a reflection of the retail sales environment. In Issue 42 of What's In Store?, we analyse the results of 31 retailers. While sales have been weak, more than half the retailers had an increase in operating earnings, primarily through higher gross margins. Retailers are lucky that the surging Australian dollar has provided a gross margin cushion to the weaker sales backdrop. The outlook is more constrained. The majority of retailers had a rise in inventory and many are signaling an investment in online and staffing that may also crimp margins. Our investment preference is for companies that have store rollout opportunities such as JB Hi-Fi and Super Retail Group.

[FY11 Retail Results: Trying to Protect Margins](#)



**Issue 43 (9 November 2011)**

**An Age Old Question for Retailers**

**Companies mentioned: SFH, FLT**

**Issue 43: An Age Old Question for Retailers**

Australia's population is aging, like many other developed countries. In Issue 43 of What's In Store?, we look at the changing age profile for Australia and the impact on retail spending. The population over 65 will grow by 2.3% per annum over the next forty years to 7.6 million, while those under 65 will only grow at 0.8%. Older Australians tend to spend more on medical expenses, fresh foods and holidays and less on furniture, clothing and alcohol & tobacco. There are two retail companies set to benefit from the aging profile – Specialty Fashion Group, which has clothing stores that target older demographics, and Flight Centre, which offers travel services. We have Buy ratings on both companies. (FLT.AX; A\$17.73; 1)

[An Age Old Question for Retailers](#)

**Issue 44 (14 December 2011)**

**Elusive Factory Outlet Options**

**Companies mentioned: DJS, HVN, JBH, MYR, ORL, PBG, PMV, SFH**

**Issue 44: Elusive Factory Outlet Options**

Factory outlets are embraced by some retailers, but shunned by others. In Australia, it is a \$2 billion retail market and in our view a way to segment shopper preferences effectively. Moreover, the profit margins and return on capital are often higher in outlet stores because sales productivity is higher and rental costs are lower. While developing this channel may be a growth option for David Jones, Myer and Premier Investments, the under-utilised floor space for full-line department stores or specialty stores needs to reduce, a challenge given lease terms. We expect some growth in factory outlet retailing online, through flash sale websites.

<https://www.citivelocity.com/geo/pdf/SAUT1NYT.pdf>

**Issue 45 (9 February 2012)**

**Consumers Spending Elsewhere**

**Companies mentioned: FLT, SUL, MTS**

**Issue 45: Consumers Spending Elsewhere**

Retailers are complaining because shoppers are not spending money in their stores. The reality is that retail spending is much weaker than broader consumer spending. In Issue 45 of What's In Store?, we explore the substitution between retail and other spending categories. In discretionary retailing, travel has taken almost half of the growth from retail. In food retailing, restaurants and café's are not taking away share from supermarkets but are rather complementing its growth. These trends are partly lifestyle driven and partly price driven. The implication is weak retail sales growth again in 2012 as consumers switch more of their spending to travel, recreation and personal care. We prefer Metcash for its defensive attributes and both Flight Centre and Super Retail Group for their ability to tap into these consumer trends.

<https://www.citivelocity.com/geo/pdf/SAUJQYIU.pdf>

**Issue 46 (5 March 2012)**

**Private Equity Eyes on Retail**

**Companies mentioned: BBG, DJS, HVN, JBH, MTS, MYR, ORL, PBG, PMV, SFH, SUL, WHS, WES, WOW**

**Issue 46: Private Equity Eyes on Retail**

Private equity is circling the Australian retail sector. In Issue 46 of What's In Store?, we analyse the private equity interest in listed retailers by using the typical private equity framework. There are three distinct groups of companies of interest – margin recovery, asset plays and cash flow returns. There are four companies that present the highest interest on our scorecard and the potential internal rate of return (IRR) – Billabong, Pacific Brands, Harvey Norman and Specialty Fashion Group. While Billabong and Pacific Brands are well known, Harvey Norman and Specialty Fashion have large blocking shareholders that present the most significant hurdle for potential bidders.

<https://www.citivelocity.com/geo/pdf/SAUN100Q.pdf>

**Issue 47 (10 April 2012)**

**Close to the Edge**

**Companies mentioned: BBG, DJS, HVN, JBH, MTS, MYR, ORL, PBG, PMV, SFH, SUL, WHS, WES, WOW**

**Issue 47: Close to the Edge**

The retail sector earnings result season provides a great snapshot of the painful adjustments retailers need to make. Most retailers reported weak sales and rising operating costs during 1H12. The only saviour was the higher Australian dollar by supporting gross profit margins. In Issue 47 of What's in Store?, we analyse the recent financial results and implications for future profitability. The sales headwinds will persist, primarily through deflation and living cost pressures. Currency gains may carry through for another six months, but the need to become price competitive will be a bigger headwind over the medium term. Moreover, over three quarters of the 31 retailers we analyse reported an increase in inventory days, posing risks for the next year's profit margins. Given these challenges, our stock preferences are Metcash and Woolworths, where the online retailing threat is minimal and industry structure highly attractive. We have Buy ratings on both companies.

<https://www.citivelocity.com/geo/pdf/SAUZNWKT.pdf>

**Issue 48 (9 May 2012)**

**Focusing on Shrinkage To Grow Profit**

**Companies mentioned: BBG, DJS, HVN, JBH, MYR, ORL, PMV, SFH, SUL, WES, WOW**

**Issue 48: Focusing on Shrinkage To Grow Profit**

Shrinkage is the billions of dollars of inventory that goes "missing" in retail stores. There are many reasons for it and the impact on profits can be significant. In Issue 48 of What's In Store?, we assess the sources of shrinkage and look at the retailers like Coles, Myer and JB Hi-Fi which release details of shrinkage. Finally, we estimate the opportunity for retailers to lift profitability by reducing their shrinkage rate. Myer has halved its shrinkage in three years, while Coles has captured more than 100bp in margin gains. We see soft goods retailers as the best beneficiaries going forward, such as Premier Investments, David Jones and Target.

<https://www.citivelocity.com/geo/pdf/SAU2BQGI.pdf>

## **Notes**

## Appendix A-1

### Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

### IMPORTANT DISCLOSURES

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Woolworths Ltd.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Billabong International Ltd, Flight Centre Ltd, Wesfarmers Ltd, Woolworths Ltd in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Woolworths Ltd.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Flight Centre Ltd, Premier Investments Ltd, Wesfarmers Ltd, Woolworths Ltd.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Billabong International Ltd, Flight Centre Ltd, Wesfarmers Ltd, Woolworths Ltd.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures). Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

### Citi Investment Research & Analysis Ratings Distribution

Data current as of 31 Mar 2012	12 Month Rating			Relative Rating		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Investment Research & Analysis Global Fundamental Coverage	52%	37%	11%	10%	79%	10%
% of companies in each rating category that are investment banking clients	44%	42%	40%	47%	42%	43%

### Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:

CIRA's stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

**Risk rating** takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

**Investment Ratings:** CIRA's investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of CIRA management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

**Relative three-month ratings:** CIRA may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting

the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

---

#### **NON-US RESEARCH ANALYST DISCLOSURES**

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citicorp Pty Ltd	Craig Woolford; Michael Goltsman, CFA; Tim Mitchell, CFA
Citigroup Global Markets India Private Limited	Lokesh Gusain

---

#### **OTHER DISCLOSURES**

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Wesfarmers Ltd, Woolworths Ltd. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at [www.citiVelocity.com](http://www.citiVelocity.com).)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

**Important Disclosures for Morgan Stanley Smith Barney LLC Customers:** Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use [smithbarney.com](http://smithbarney.com) to view any available Morgan Stanley research reports in addition to CIRA research reports.

Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at [www.morganstanleysmithbarney.com/researchdisclosures](http://www.morganstanleysmithbarney.com/researchdisclosures). For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to [www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures) and



[https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures).

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

**The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by.** The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A. Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 110-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients

who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to CIRA's Products can be found at [https://www.citivelocity.com/cvr/epublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/epublic/citi_research_disclosures).

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs), CIRA concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual CIRA analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. CIRA simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by CIRA analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.

CIRA product may source data from dataCentral. dataCentral is a CIRA proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.

---

© 2012 Citigroup Global Markets Inc. Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of

the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

---

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

---