



# NAB CASHLESS RETAIL SALES INDEX DECEMBER 2017

## NAB Australian Economics

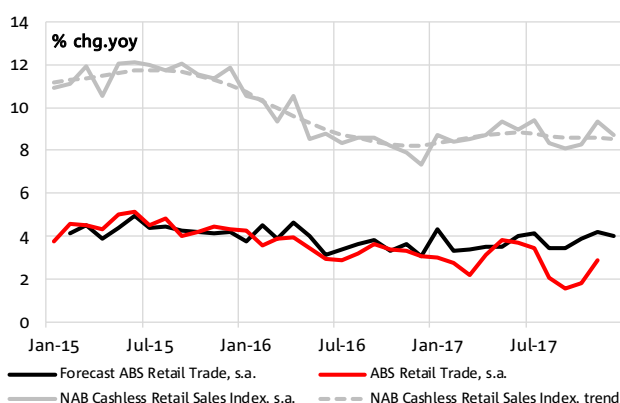
- The NAB Cashless Retail Sales Index shows a slowdown in December following a strong November. Mapping through to the official measure of retail sales suggests a decline of 0.3% in December after a strong 1.2% rise in November to be published by the ABS when released on 6 February. The weaker result this month was driven by declines in household goods related to the introduction of the iPhone (the electronic goods sub-category fell 2.0% mom following a revised 3.8% increase in November), as well as in food, departments stores and ‘other retailing’.
- We should be cautious about reading too much into monthly movements in NAB’s data and the official ABS measure of retail sales at present. This is due to changing seasonal patterns (in this instance because of the introduction of Black Friday sales to Australia and the timing of the latest iPhone release). The underlying pace of growth however appears reasonable, with average growth in NAB’s Cashless Retail Index of 0.45% in November and December, and the “official” ABS measure expected to average 0.3% m/m.
- Yearly growth in NAB’s cashless retail index was 8.7% yoy, compared with much slower growth in the ABS measure. NAB’s series does not include cash payments and also includes a larger share of online purchases, a difference which may become even more critical as a greater share of Christmas shopping shifts online.
- Looking specifically at the NAB Cashless Retail Sales Index, spending at cafes, restaurants & takeaways remains the fastest growing category (16.6% yoy), with spending on ‘other retailing’ strong (9.9% yoy). Spending on household goods has also picked up in recent months (14.4% yoy), and spending on food remains solid (5.5% y/y). Meanwhile, clothing & footwear sales are growing at a meeker rate (2.9% yoy), and growth in department store sales was negative. (Charts 3, 7 & 8).
- Spending growth is also relatively broadly-based across the states. NSW (9.1% yoy) and Victoria (8.9% yoy) are the standouts, with Queensland (8.0% yoy), the ACT (7.7% yoy) and South Australia (7.2% yoy) not far behind. While WA remains the laggard, although the gap has narrowed (5.3% yoy) (Chart 4).
- The NAB Cashless Retail Index is broader than the NAB Online Retail Index and measures all cashless retail spending by consumers using debit and credit cards (both in person and online), BPAY and Paypal. The index is derived from personal transaction data from NAB platforms (around 2 million transactions per day) and offers a 2-3 week lead on ABS retail trade data.

	Year-on-year growth (%)		
	Oct-17	Nov-17	Dec-17
NAB Cashless Index	8.2	9.3	8.7
ABS Retail Trade (s.a.)	1.8	2.9	--
NAB Cashless index mapped to ABS	3.9	4.2	4.0

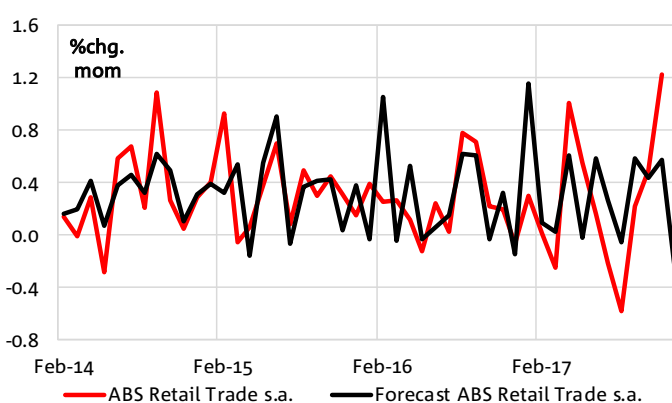
	Month-on-month growth (%)		
	Oct-17	Nov-17	Dec-17
Cashless Index (s.a.)	0.6	1.3	0.2
ABS retail (s.a.)	0.5	1.2	--
NAB Cashless index mapped to ABS	0.4	0.6	-0.3

Sources: NAB, Australian Bureau of Statistics (ABS). \*Data seasonally adjusted (s.a.) using TRAMO/SEATS with a trading day and Easter adjustment.

**Chart 1: Cashless and total retail sales**



**Chart 2: ABS and forecast ABS retail trade data, s.a.**



**NAB Chief Economist, Alan Oster commented:**

“While retailers may be recording a good Christmas, NAB’s data based on around 2 million transactions per day suggests a slowdown in the month of December. This may be partly due to changing spending patterns between months, with Black Friday sales and the release of the newest iPhone in November this year driving a particularly strong November and then pull back in December. The impact of the iPhone can be seen from the wild swings in the electrical & electronics sub-component, but changing seasonal patterns are also evident in other categories such as food, department stores and ‘other retailing’.

“Averaging November and December however suggests a moderate pace of growth in recent months - 0.45% monthly growth in the NAB Cashless Retail Index and a prediction for an average 0.3% monthly growth in the ABS data when released. This suggests some improvement in the underlying pace of growth in the fourth quarter following a slowdown in the third quarter of 2017.

“The moderate pick up in retail spending is consistent with continuing strong employment growth in the latter months of the year, and a total of 400K jobs added through 2017 as a whole, 300K of which were full-time. This appears to be supporting not only consumer confidence but also spending, even though wages growth is exceptionally low.

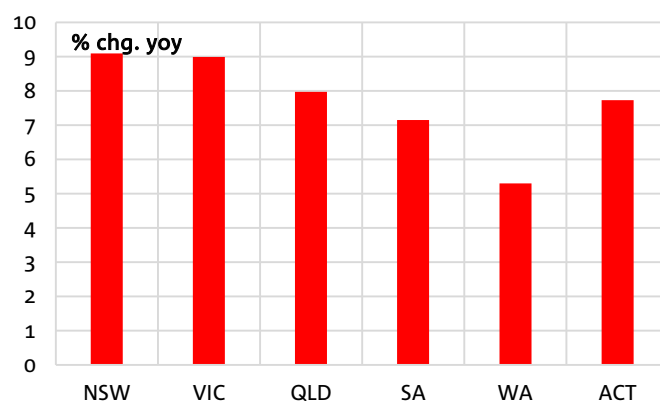
“Despite some tentative evidence that households are loosening the purse strings a little, NAB’s Business Survey continues to suggest that the retail sector is struggling, with business conditions in slightly negative territory which suggests negative growth. This could be because retailers can’t pass on cost increases, as conditions for wholesalers are strongly positive, but also because of competition from offshore and online – NAB’s Cashless Retail Index includes a larger share of online sales than the ABS measure, which go some way to explaining the faster growth rate.

“NAB’s index is derived from personal transaction data from NAB platforms (around 2 million transactions per day) and includes all cashless retail spending by consumers using debit and credit cards (both in person and online), BPAY and Paypal. NAB’s Cashless Retail Index is reasonably assumed to be representative of aggregate non-cash retail sales in Australia given its large sample size. The average growth rate for NAB’s index is stronger than the official ABS measure of retail trade given that it does not capture cash transactions, which is why we use our mapping equations to forecast the official ABS measure of retail trade. RBA research suggests 18% of the value of retail trade occurred via cash in 2016. Over time, the growth rates of the two series are likely to come together.”

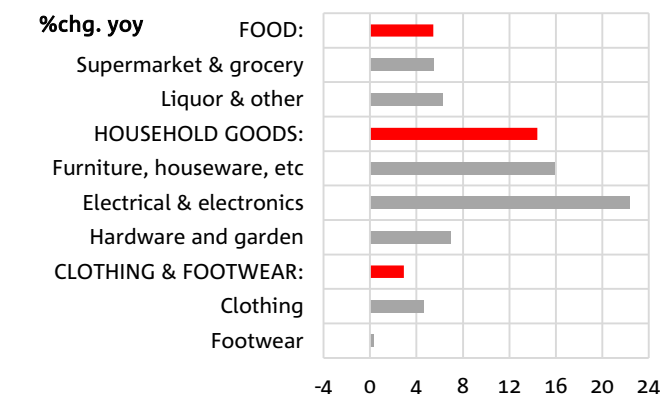
**Chart 3: Cashless retail sales by industry, s.a.**



**Chart 4: Cashless retail sales by state, s.a.**



**Chart 5: Cashless retail sales by sub-industry, s.a.**

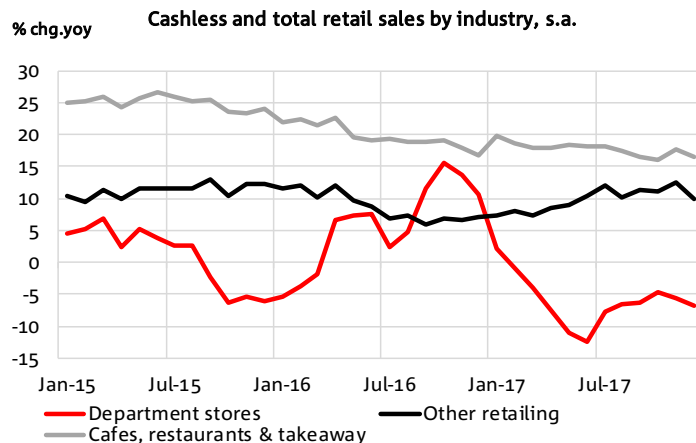
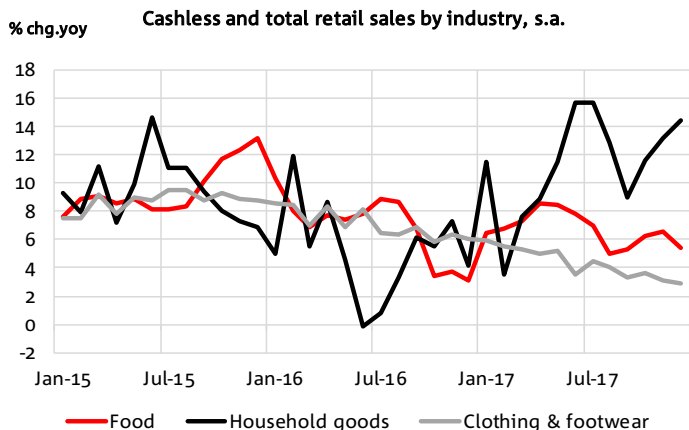


**Chart 6: Cashless retail sales by sub-industry, s.a.**



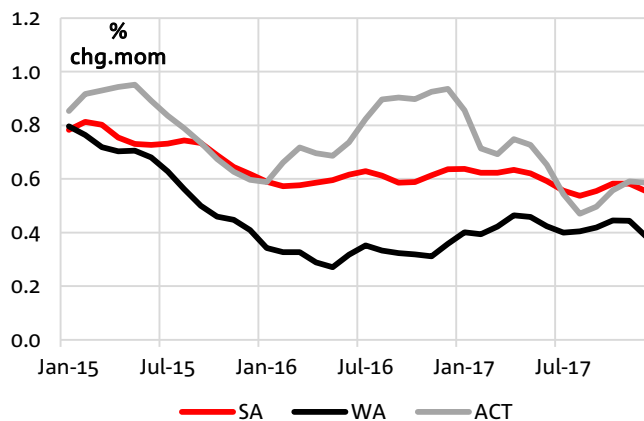
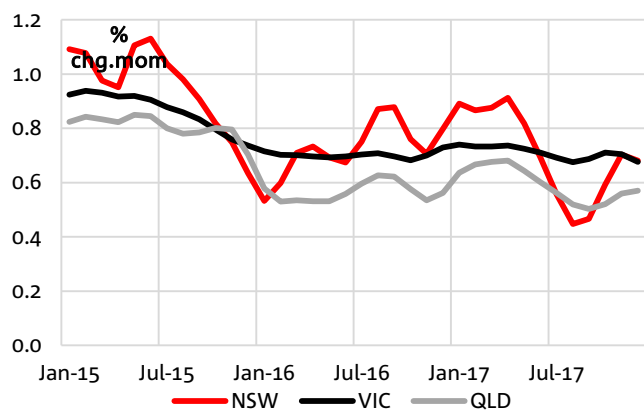
### Charts 7 & 8: Cashless sales by industry, seasonally adjusted

Yearly growth in cashless retail has been mixed across categories. Cafes, restaurants and takeaways is by far the fastest growing sector (16.6% yoy), followed by 'other retailing' (9.9% yoy). There has also been a welcome pickup growth in the household goods category. Food spending growth also remains solid, and has eased off a touch for department stores. In contrast, spending on clothing & footwear continues to slow.



### Charts 9 & 10: Cashless sales by state, trend

By state, spending growth has become more broad-based. In monthly trend terms, growth is strongest in Victoria, followed closely by NSW (although annual growth remains stronger in NSW following strength earlier in 2017), Queensland, the ACT and South Australia. Rates of growth have also stabilised in WA, where annual growth in cashless retail sales is not lagging behind as substantially.



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## APPENDIX: METHODOLOGY AND COMPARISON WITH ABS RETAIL TRADE

The NAB Cashless Retail Sales Index is derived from NAB transactions data that have been assigned from particular merchant codes to retail industries by state. NAB electronic transactions data are based on an average 2 million transactions per day. The data are collected in real time at event record level, which allows significant flexibility to segment the data by time, location and merchant type. Transactions data may include EFTPOS, Credit Card, BPAY, Bank Transfers, Direct Debits and Paypal services where available, and include transactions with Australian and international merchants. Spending includes both online and offline transactions. The data excludes cash withdrawals made during a purchase and purchases made offline in an overseas location.

The data only capture electronic retail transactions (and not those through cash payments), hence it is subject to the changing nature and take-up rate of electronic payment methods relative to cash. Any growth in the overall transaction value may be attributable to either an increased preference towards card-based payments by consumers (such as near-field payment “PayWave”), or a higher level of spending across the economy by consumers, i.e. a pick-up in nominal sales. However, it is currently not possible to differentiate between these effects. Customer spending is based on where the customer lives, which may or may not be where the actual spending activity occurs. Customers without an Australian residential address are excluded.

These estimates are aggregated into national industries by applying to them the state shares of each industry from the ABS retail trade publication. State estimates are aggregated by applying the industry shares of each state from the same source. These adjustments are intended to correct for differences between the incidence of NAB transactions across industries and states when compared with the official ABS data.

The industry and state data have been seasonally adjusted using Tramo-SEATS with a trading day and Easter adjustment. Given the relatively short time frame for the data, this seasonal adjustment process should be regarded as provisional: estimates are likely to change as a longer run of data becomes available, and can be revised from month-to-month given the concurrent process. The trends have been extracted from the same process.

Our aim is to have a data series that is as reflective as possible of retail spend. As such each month we will revise previous data to take into account changes in payment processing such as chargebacks and delayed payments. Given these attributes, typically, larger revisions occur to the most recent months, and diminish as the data ages.

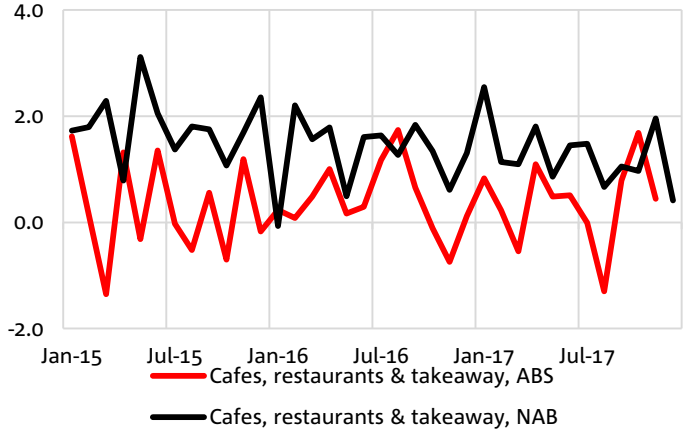
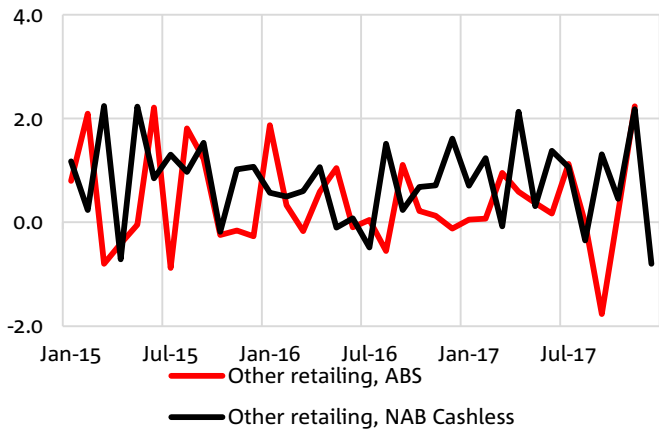
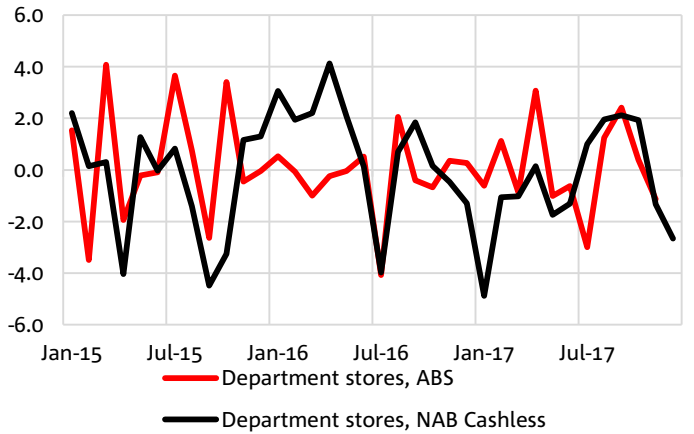
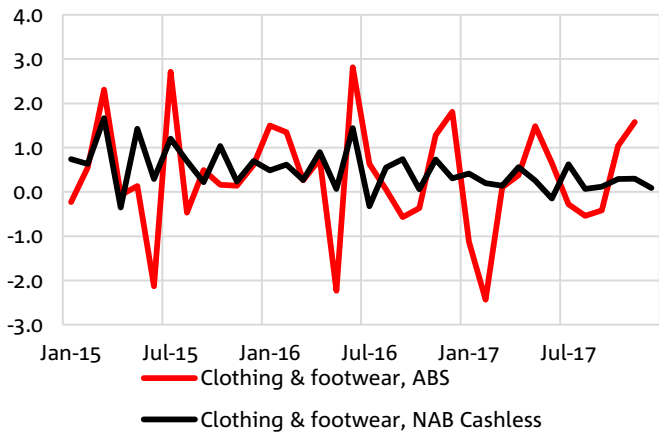
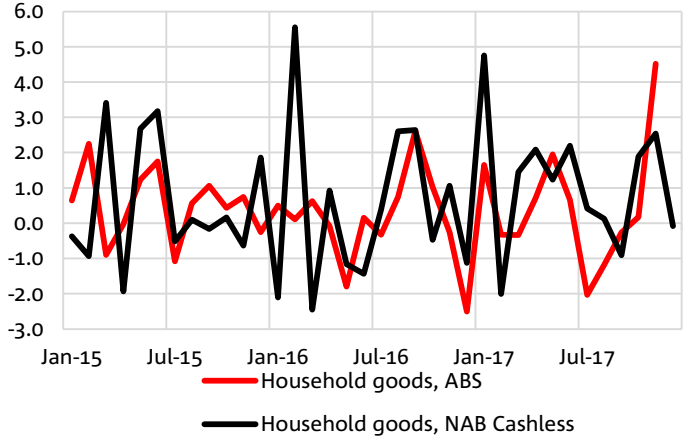
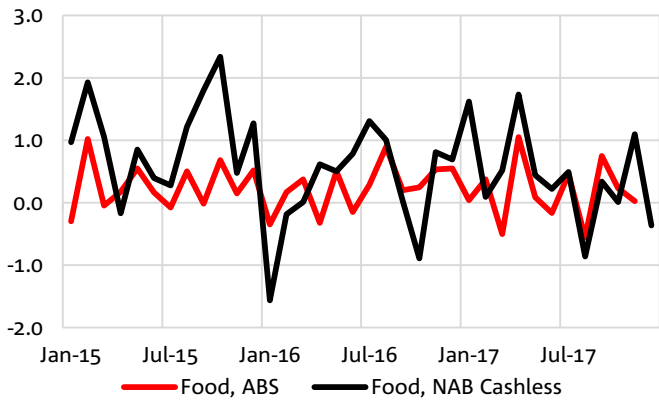
After appropriate weighting and seasonal adjustment, the components of NAB’s cashless retail index (food, household goods, clothing & footwear, department stores, other retailing and cafes, restaurants & takeaway) can generate predictions of the corresponding ABS retail trade series. Aggregating these provides a forecast of total ABS retail trade.

The charts show the relationship between the ABS total and NAB Cashless retail sales measures, using monthly seasonally adjusted data, for the main retail industry groups. There are several relatively close relationships with only a small number of ‘outliers’ (see household goods, clothing & footwear and department stores), but other industries show more mixed results. The sources of these differences are:

- The inclusion of cash transactions in the ABS measure and changes in their share of total transactions. This share may begin to stabilise as the penetration of contactless payment systems reaches a limit reflecting minimum spend requirements for cashless transactions and because of the existence of a proportion of merchants who deal only in cash.
- The NAB data include a larger share of online transactions (7%) than the ABS (3%).
- Changes in NAB’s market share of cashless transactions.
- Differences between the seasonality in the ABS and NAB series.

Therefore, the forecasts from the use of the NAB Cashless Retail Index should be used with caution.

Comparisons between mapped NAB series and ABS data by retail industry group, s.a. % change m/m



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