



NAB ONLINE RETAIL SALES INDEX DECEMBER 2018

NAB Group Economics

- We have made some significant changes to the NAB online series (for more details see Appendix). Importantly we have merged SME and Corporate Online into a single index and provide more detail by region and industry on a monthly basis.
- On that basis the NAB Online Retail Sales Index contracted -1.4% in December on a month-on-month, seasonally adjusted basis, down from a 2.9% increase in November.
- The weak result for December was heavily impacted by considerable growth in November. For online retail, on an original basis, November sales are typically the largest for the calendar year. The gap between November and December sales narrowed in 2013 and 2014 as aspects like delivery times improved, allowing online orders to be made later in the lead up to Christmas. However in the past few years, the introduction of online sales events such as Black Friday, Cyber Monday, and Vogue shopping night have cemented the importance of November in the online retail shopping calendar. Seasonally adjusted results for December are normally positive and this is the first time such a large contraction has been recorded for December.
- The NAB Online Retail Sales Index was up 9.0% year-on-year in December. Year-on-year growth is positive for seven of the eight NAB Online Retail Sales Index industry groupings. Department and variety stores remains the fastest growing category (35.1% y/y) – mainly due to new entrants into the Australian market and the removal of the daily deals category - followed by games and toys (23.1%), media (16%), grocery and liquor (13.4%), takeaway food (11.1%), home wares and appliances (4.6%) and fashion (3.9%). Personal and recreational goods (-2.1%) was the only category to contract in year on year terms. See Charts 3, 7 & 8 below.
- The NAB Online Retail Sales Index measures all Online Retail spending by consumers using various electronic payment methods such as credit cards, BPAY, and Paypal. The index is derived from personal transaction data from NAB platforms and is scaled up to be representative of the economy by using scalars including ABS Estimated Resident Population, and RBA payments data. The NAB Online Retail Index has continued to outpace the ABS measure of retail sales (11.8% y/y versus 2.8% y/y in November).
- We estimate that in the 12 months to December, Australians spent \$28.6 billion on online retail. – a level that is equivalent to around 8.9% of the traditional bricks and mortar retail sector (which totalled almost \$320.1 billion in the year to November 2018 according to the Australian Bureau of Statistics).
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

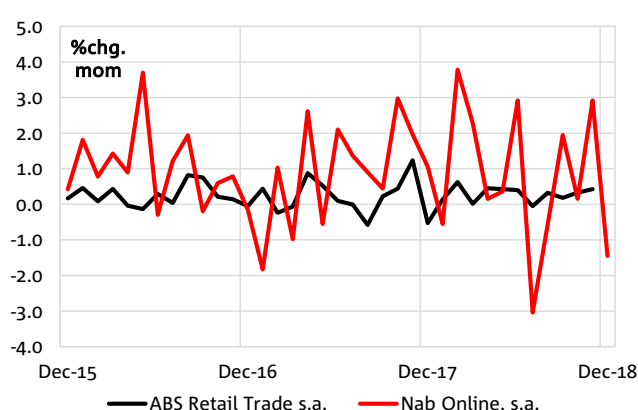
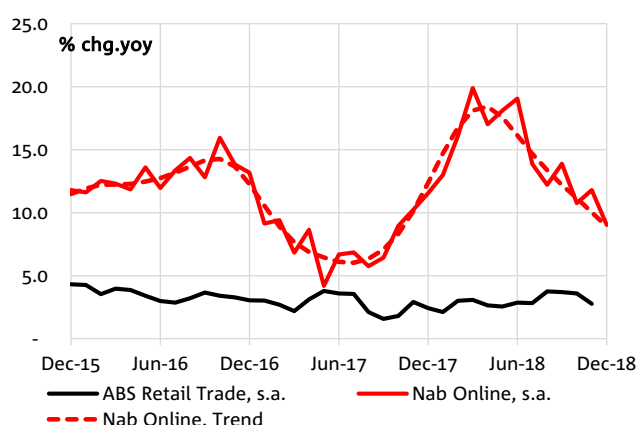
	Year-on-year growth (% s.a.)		
	Oct-18	Nov-18	Dec-18
NAB Online Index	10.8	11.8	9.0
ABS Traditional Retail	3.6	2.8	

	Month-on-month growth (% s.a.)		
	Oct-18	Nov-18	Dec-18
NAB Online Index	0.2	2.9	-1.4
ABS Traditional Retail	0.3	0.4	

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

Chart 1: Online retail sales

Chart 2: NAB Online retail trade data, s.a.



NAB Chief Economist, Alan Oster commented:

The NAB Online Retail Sales Index recorded -1.4% month-on-month contraction in December. There has only been one other December contraction in this series – in 2016 at a much more mild -0.1%.

Large online sales events such as Black Friday, Cyber Monday, and Vogue shopping night have contributed to a strong result in November, and may have brought forward some Christmas spending to November. However, given these sales have been part of the online retail environment for some time, it is likely that the weak December read partly reflects underlying weakness in the retail sector.

Low wage growth, high personal debt levels and a weakening housing market – particularly in Sydney and Melbourne – have made consumers reluctant to spend on non-essentials. The Australian economy is still growing, although we revised down our GDP growth forecasts somewhat last month, as wealth effects of lower house prices and slower housing construction bear more on the outlook. We now no longer expect any movement in the cash rate until the second half of 2020.

On a year-on-year basis, strong sales growth in online categories such as department stores, grocery and liquor, media (music, books, periodicals), games and toys, and takeaway food outperformed the large sales category of homewares and appliances, along with slow growth in fashion and a sales contraction in personal and recreational goods.

NAB's index is derived from personal transaction data from NAB platforms and includes electronic spending by consumers using NAB cards, BPAY and Paypal. NAB's Online Retail Index is reasonably assumed to be representative of aggregate online retail sales in Australia given its large sample size. NAB's estimate of the Online retail market is larger than that of the official ABS measure of Online retail trade as it covers businesses that may not be within the remit of the ABS business register, such as overseas online retailers.

Chart 3: Online retail sales by industry, yoy,s.a.

Chart 4: Online retail sales by state, yoy s.a.

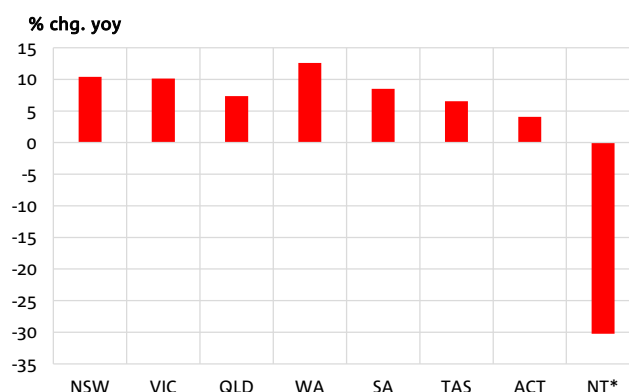
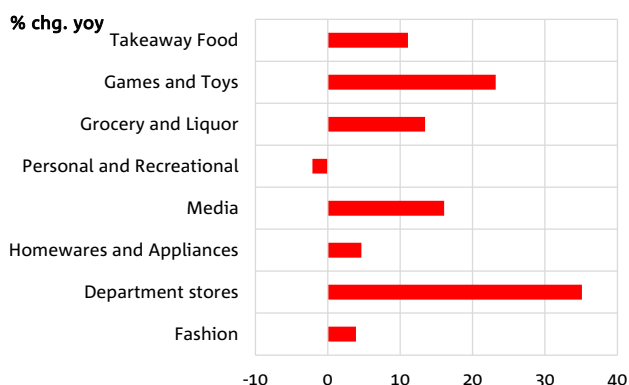
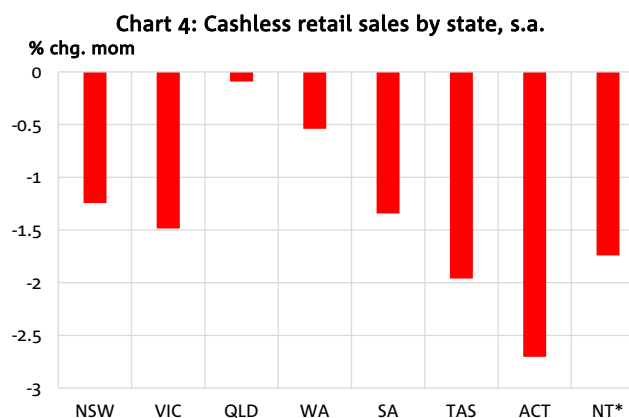
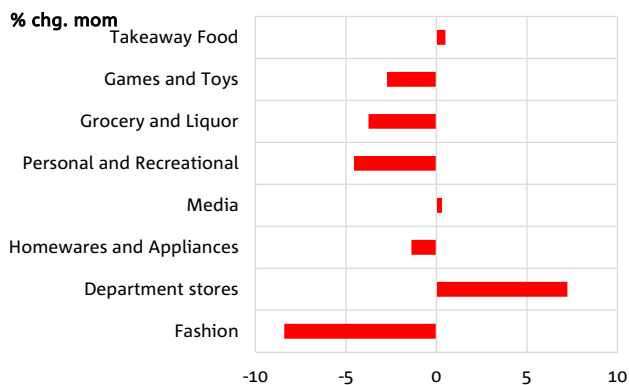


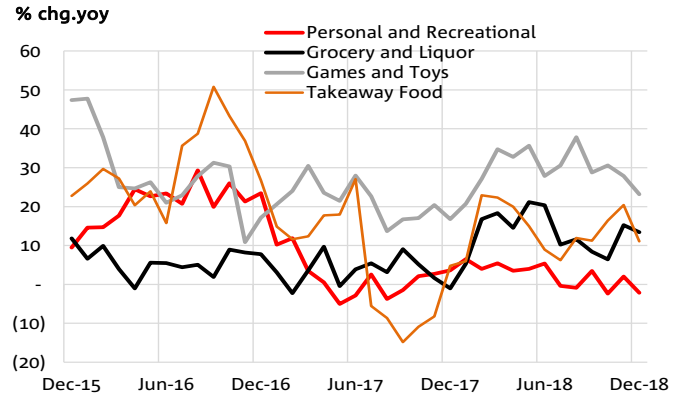
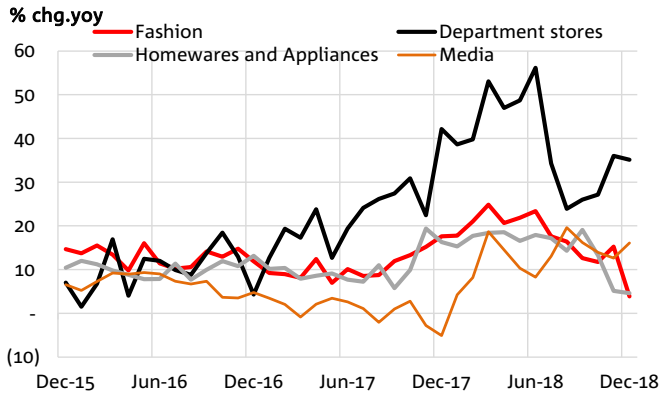
Chart 5: Online retail sales by industry, mom s.a.

Chart 6: Online retail sales by state, mom s.a.

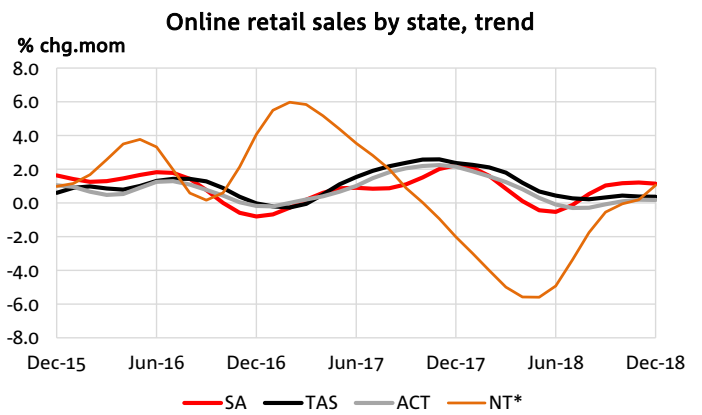
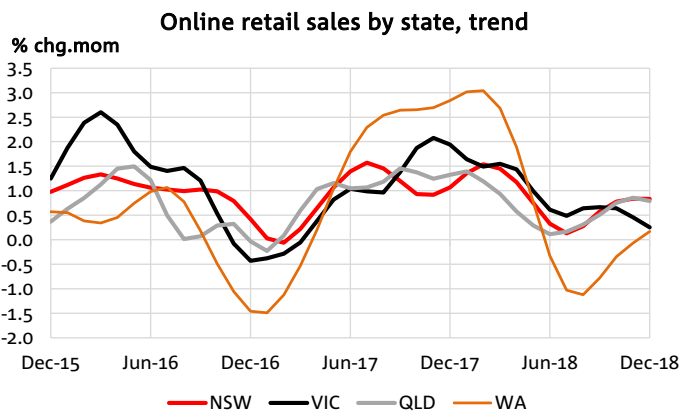


* Note that the series for the Northern Territory is highly variable and should be used with caution

Charts 7 & 8: Online sales by category, seasonally adjusted



Charts 9 & 10: Online sales by state, trend



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APPENDIX: METHODOLOGY

The NAB Online Retail Sales Index is now sourced in-house and is produced by Group Economics. It is derived from NAB transactions data that have been assigned from particular merchant codes to retail industries by state. To keep the series reasonably consistent with past series we have left these category descriptions broadly unchanged, albeit we now include new entrants to the Australian market. Against that we have however removed the standalone previously reported category of 'Daily Deals' as this category was considerably volatile and caused statistical issues with indirect seasonal adjustment.

NAB electronic transactions data for the compilation of this series is collected in real time at event record level, which allows significant flexibility to segment the data by age, time, location and merchant type. In future months we plan to expand the data provided from the series as we bed-in acceptable seasonal adjustment factors for the new series. Transactions included in these data may incorporate purchases by Card, BPAY, Bank Transfers, Direct Debits and Paypal services where available, and include transactions with Australian and international merchants. Spending represented here includes transactions we have identified as online.

In the previously published series we were using online retail sales by merchants with turnover greater than \$2.5m ('Corporate') as a proxy for online sales growth of the whole online market. This was due to the shorter time series of the previous market estimate and associated seasonal adjustment issues. With the new extract we now have sufficient time series, and the growth rates represented are for the total market – i.e. Corporate and SME combined in a single series.

The data captures electronic retail online transactions and is therefore subject to the changing nature and take-up rate of electronic payment methods. Hence change in growth in the overall transaction value may be attributable to either an increased preference towards a payment type by consumers (such as buy now pay later schemes), or a change in the level of spending across the economy by consumers, i.e. a pick-up in nominal online sales. We continue to work to isolate 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 developed from transaction micro level data are then aggregated to higher level categories based on transaction attributes. The data is made representative of national sales activity by applying both demographic attributes to customer location using the ABS Estimated resident population, and comparing NAB transaction data to RBA payments system 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. Note that the NORSI series prior to December 2018 was using Census Bureau Seasonal adjustment, and a Henderson 13 was applied for trend.

Our aim is to have a data series that is as reflective as possible of online 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, but the latter effect cannot be excluded.

Our data differs to that of the ABS series as the NAB series covers a broader spectrum of online retailers – overseas merchants selling to Australian residents for example, and categories that substitute for previously retail purchased goods. Categories such as music and book retailing, and electronic games form part of the current online estimate. These are now substitutes for what may have been purchased in-store, but are now provided by online media streaming companies. While these may not fit the strict retail trade definition, our data reveals that they are increasingly being used by customers who previously purchased media in-store. We incorporate these companies into our estimate of online retail sales.

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