



NAB ONLINE RETAIL SALES INDEX JANUARY 2019

NAB Group Economics

- Last month we made significant changes to the NAB online series (for more details see Appendix). Effectively we have merged SME and Corporate Online into a single index, and now provide more detail by region and industry on a monthly basis.
- On that basis, the NAB Online Retail Sales Index contracted -0.5% in January on a month-on-month, seasonally adjusted basis. Though still negative, this is not as steep a decline as the -1.9% in December.
- However, the combined drop in December and January has resulted in almost no growth from the past three months, despite the strong November result. In year-on-year terms online retail sales are still growing with the NAB Online Retail Sales Index up 7.5% (y/y, s.a.) in January.
- 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 (29.6% y/y), mainly due to continued growth of new entrants into the Australian market. This is followed by games and toys (20.1%), takeaway food (12.7%), grocery and liquor (11.7%), media (9.4%), fashion (4.6%), and homewares and appliances (3.9%). Personal and recreational goods (-2.2%) was the only category to contract in year on year terms. See Charts 3, 7 & 8 below.
- By State, New South Wales (+9.2) recorded the highest growth in year-on-year terms. This was followed closely by Victoria (+8.7) and Western Australia (+8.1%), with the latter now slowing slightly after rebounding from a considerable contraction in online sales in 2017.
- 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 (9.2% y/y versus 2.8% y/y in December).
- We estimate that in the 12 months to January, Australians spent \$28.88 billion on online retail, a level that is equivalent to around 9.0% of the traditional bricks and mortar retail sector (which totalled around \$320.85 billion in the year to December 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.)		
	Nov-18	Dec-18	Jan-19
NAB Online Index	12.2	9.2	7.5
ABS Traditional Retail	2.8	2.8	

	Month-on-month growth (% s.a.)		
	Nov-18	Dec-18	Jan-19
NAB Online Index	2.8	-1.9	-0.5
ABS Traditional Retail	0.5	-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

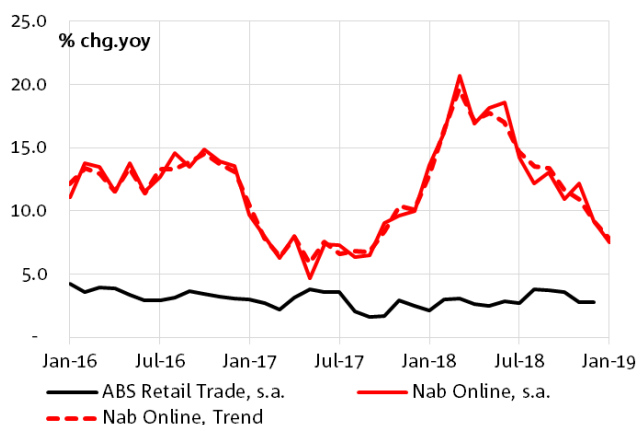
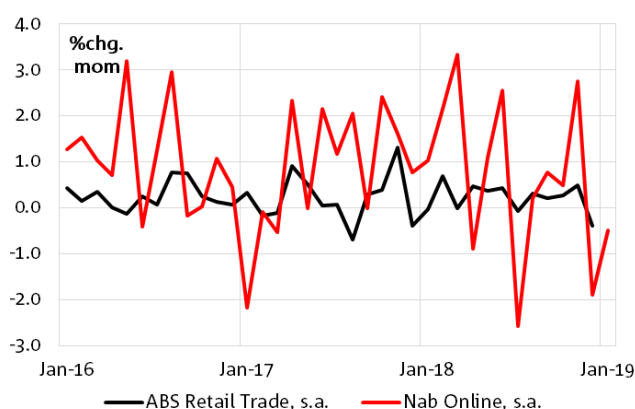


Chart 2: NAB Online retail trade data, s.a.



NAB Chief Economist, Alan Oster commented:

The NAB Online Retail Sales Index recorded -0.5% month-on-month contraction in January, following on from a -1.9% contraction in December. While the pace of contraction in month on month slowed, the latest result still points to the aftermath of large online sales events in November bringing sales forward. It is also reflective of continued underlying weakness in the broader retail sector.

A key bright spot in January was with Games and Toys growing at 3.4% (mom), while Grocery and Liquor, and Media sales recorded no growth in month-on-month terms. Department and variety store online sales contracted in the month, but sales in this category are still up strongly in year on year terms. Part of the boost to this category has come from new entrants to the Australian market, along with changes to administrative policies of some merchants in this category. The largest spend category of Homewares and appliances was the second weakest in the month, and for the year. So while people continued to play more games online, stream music, read books and join in festive celebrations catered at home during the holiday period, they were more reluctant to commit to durable goods like furniture, appliances, hardware, and sporting and recreational goods.

On a year-on-year basis, strong sales growth was strongest in the large online spend states of New South Wales, Victoria, and Western Australia. The latter is still catching up from a period of negative growth in 2017. In month-on-month terms, WA grew fastest in January, driven by takeaway food, media, grocery and liquor, and toys and games. Growth was also recorded in Victoria and Tasmania. Sales in all other states contracted in the month.

NAB's index is derived from personal transaction data from NAB platforms and includes electronic spending by consumers using NAB cards, BPAY and Paypal. Given its large sample size, NAB's Online Retail Index is reasonably assumed to be representative of aggregate online retail sales in Australia. 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.

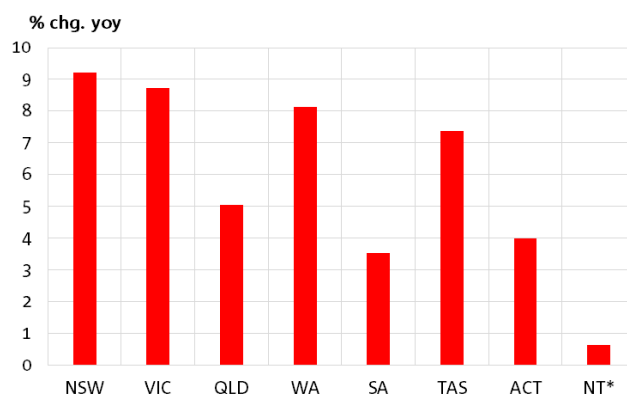
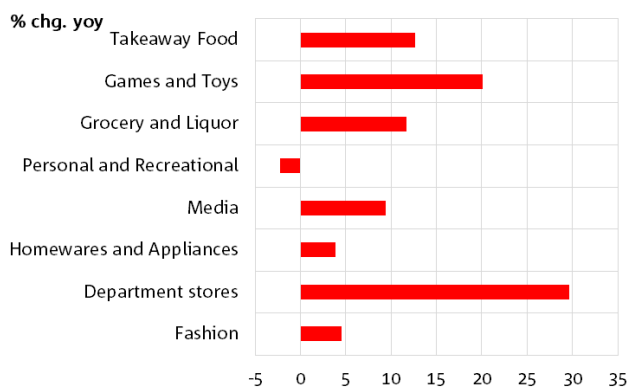
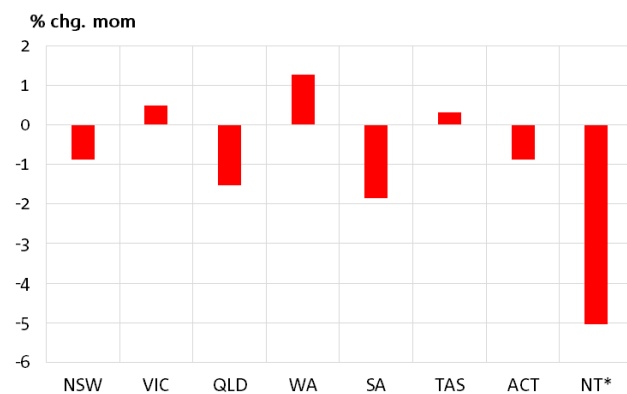
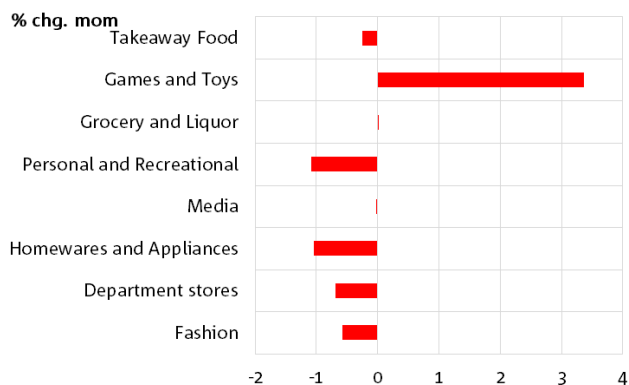


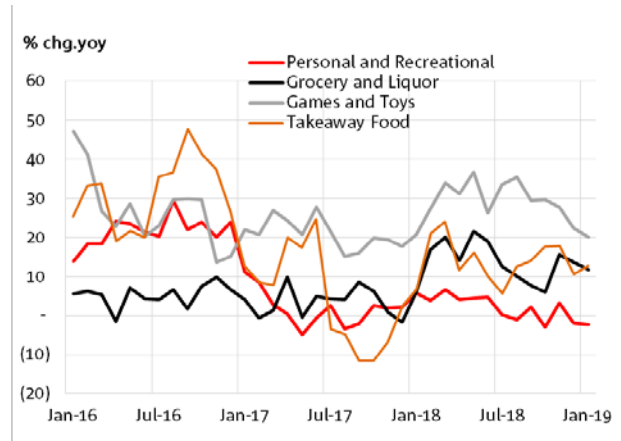
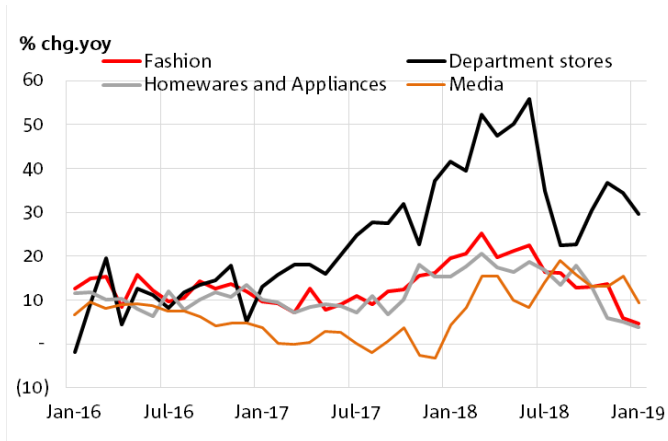
Chart 5: Online retail sales by industry, mom s.a.

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

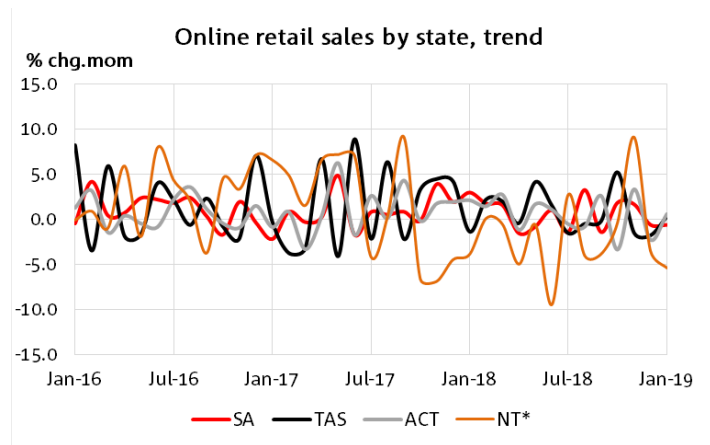
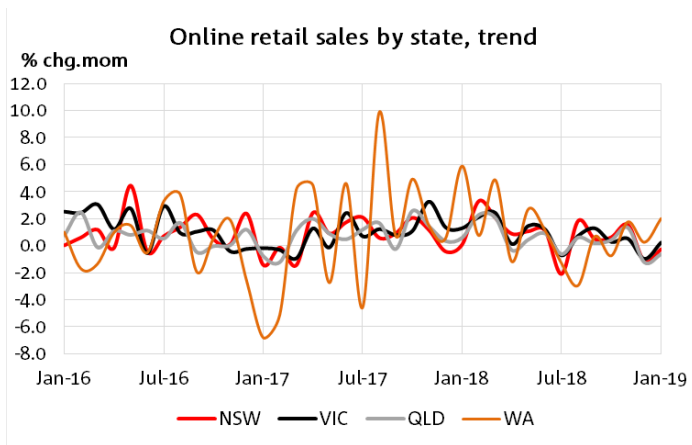


* Note that the series for the Northern Territory is highly variable and should be used with caution

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

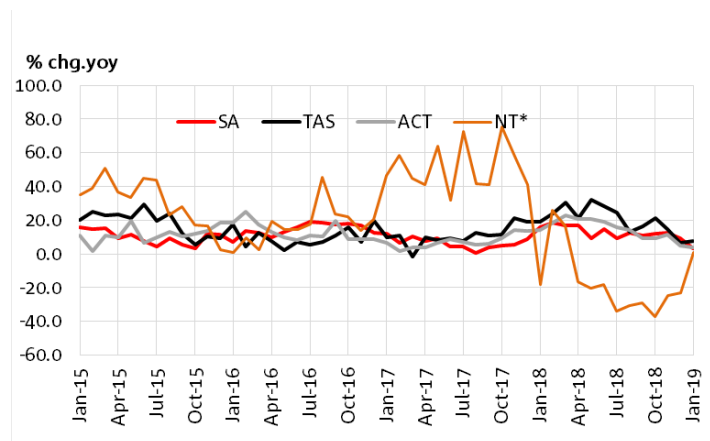
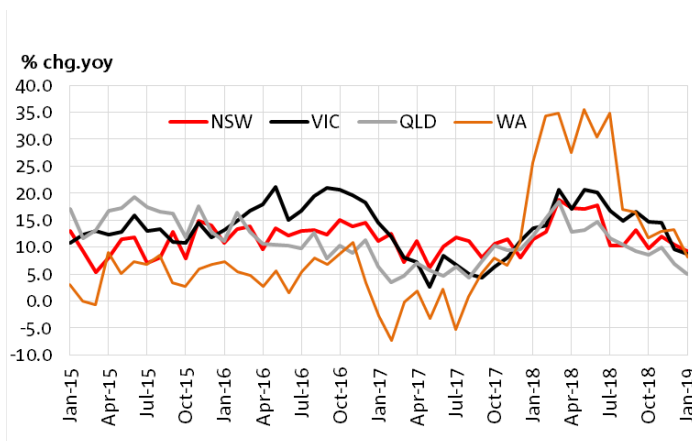


Charts 9 & 10: Online sales by state, trend



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

Charts 11 & 12: Online sales by state, yoy, s.a.



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.

Group Economics

Alan Oster
Group Chief Economist
+(61 3) 8634 2927

Dean Pearson
Head of Behavioural & Industry
Economics
+(61 3) 8634 2331

John Sharma
Economist
+(61 3) 8634 4514

Jacqui Brand
Executive Assistant
+(61 3) 8634 2181

Australian Economics and Commodities

Gareth Spence
Senior Economist
+(61 0) 436 606 175

Phin Ziebell
Economist – Australia
+(61 0) 475 940 662

Behavioural & Industry Economics

Robert De Iure
Senior Economist – Behavioural &
Industry Economics
+(61 3) 8634 4611

Brien McDonald
Senior Economist – Behavioural &
Industry Economics
+(61 3) 8634 3837

Steven Wu
Economist – Behavioural &
Industry Economics
+(61 3) 9208 2929

International Economics

Tony Kelly
Senior Economist
+(61 3) 9208 5049

Gerard Burg
Senior Economist – International
+(61 3) 8634 2788

Global Markets Research

Ivan Colhoun
Global Head of Research
+(61 2) 9237 1836

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