



NAB ONLINE RETAIL SALES INDEX FEBRUARY 2019

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 -3.4% in February on a month-on-month, seasonally adjusted basis. While the January result was revised up to near flat (was -0.5% mom, s.a.), the February result is the lowest recorded for online retail.
- In year-on-year terms the NAB Online Retail Sales Index was barely positive, up 0.5% (y/y, s.a.) in February, also the lowest result in the series history.
- All categories recorded a month-on-month decline in sales, with the largest contraction in the largest sales category, Homewares and appliances (-4.5% mom, s.a.). Year-on-year growth is positive for four of the eight NAB Online Retail Sales Index industry groupings. While Department and variety stores remains the fastest growing category in year on year terms (22.0% y/y), it was the fourth worst performing category in month on month terms. For more detail, see Charts 3, 5, 7 & 8 below.
- In year-on-year terms, Victoria (+3.8) and New South Wales (+2.3) were the only two states to record growth. Year-on-year sales growth in Queensland was almost flat (-0.2%), while WA, which had been growing rapidly over the past few months, contracted in February (-8.2%).
- At -2.7%, Domestic online retailers performed better in month-on-month terms relative to International competitors (-5.3 mom, s.a.). See charts 13 and 14, and table 3 for category growth and share.
- The NAB Online Retail Sales Index continued to outpace the ABS measure of retail sales (8.2% y/y versus 2.7% y/y in January). However, given the low result for NORSI, this is unlikely to be the case with ABS February data.
- We estimate that in the 12 months to February, Australians spent \$28.92 billion on online retail, a level that is equivalent to around 9.0% of the traditional bricks and mortar retail sector (which totalled around \$321.54 billion in the year to January 2019 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.)		
	Dec-18	Jan-19	Feb-19
NAB Online Index	9.1	8.2	0.5
ABS Traditional Retail	2.8	2.7	

	Month-on-month growth (% s.a.)		
	Dec-18	Jan-19	Feb-19
NAB Online Index	-1.7	-0.1	-3.4
ABS Traditional Retail	-0.4	0.1	

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

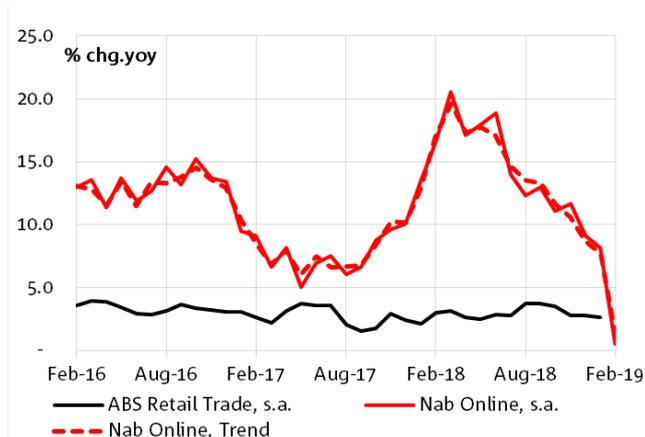
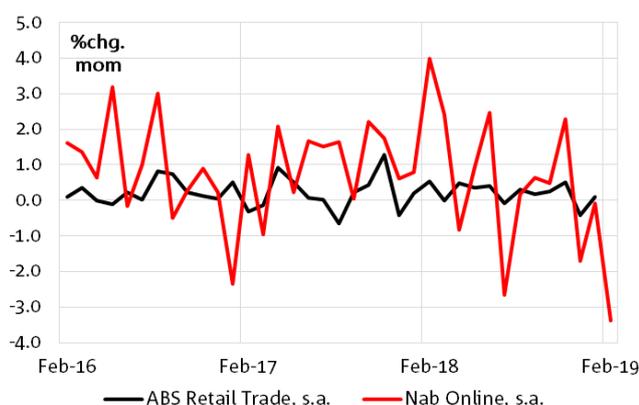


Chart 2: NAB Online retail trade data, s.a.



NAB Chief Economist, Alan Oster commented:

The NAB Online Retail Sales Index recorded its worst growth rate in the series history, with a -3.4% month-on-month contraction in February, although January was revised up to -0.1% from -0.5 previously reported. With the effect of the November sales events now passed, it appears that broader weakness in retail is flowing through to online. In addition, from our data we can see that while transaction volumes are growing, the average spend in each transaction appears to be falling. This may imply price deflation or it may reflect a consumer preference shift to cheaper alternatives.

By category, Department stores still led year-on-year growth, but this category, like all other categories, contracted in month-on-month terms. Interestingly, the category that has been most impacted by the effects of buy now, pay later payment methods, Fashion, recorded the least negative growth in the month and was virtually flat over the year. The abovementioned drop in average spend on each transaction has affected some categories more than others. From our data, we observed the biggest average spend falls in Grocery and Liquor, and Media sales. In contrast, the biggest gains in average online spend per transaction was in Department stores and Takeaway food.

On a year-on-year basis, sales growth was strongest in the largest online spend states of New South Wales and Victoria. Western Australia, which had been growing rapidly in the past few months, recorded the largest contraction in sales growth of major sales states.

This month as part of the ongoing expansion of the series, we have added merchant location information to the report. As has been the case for much of the time series, the dominant sales share of domestic online retailers outpaced their International counterparts, albeit with both negative on a month-on-month basis.

It is worth noting here that our definition of a domestic online retailer can include those merchants whose parent organisation might be overseas but the subsidiary has established operations in Australia. Using GST as a defining characteristic of domestic and international is no longer appropriate given goods under \$1000 from overseas merchants are no longer exempt from GST.

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

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

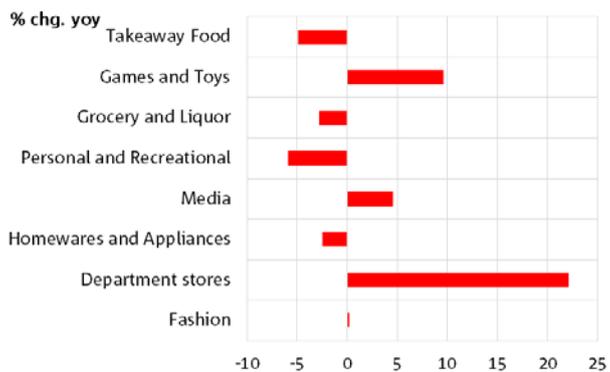
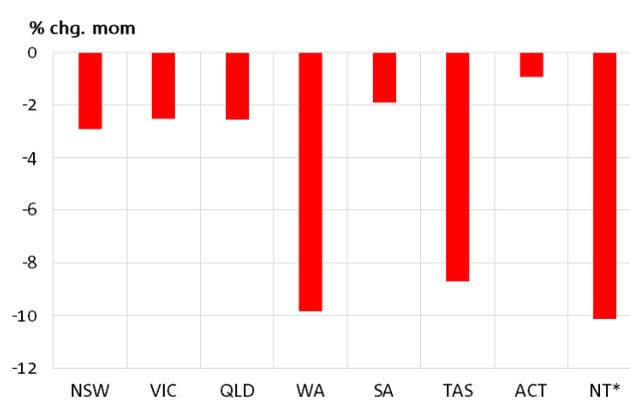
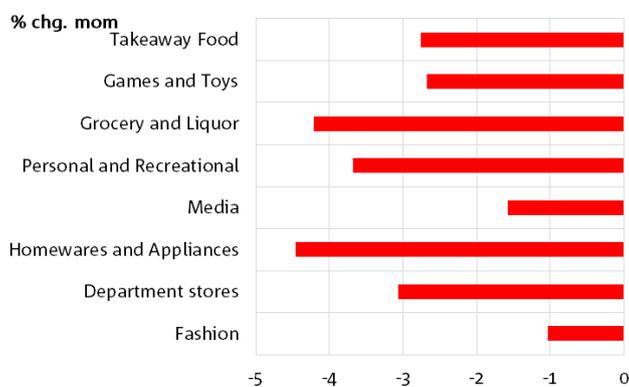


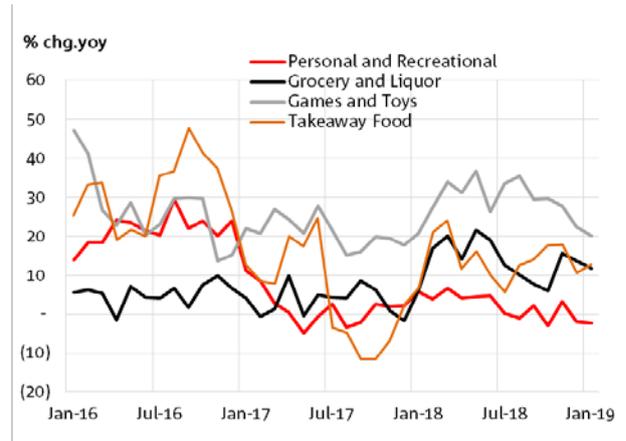
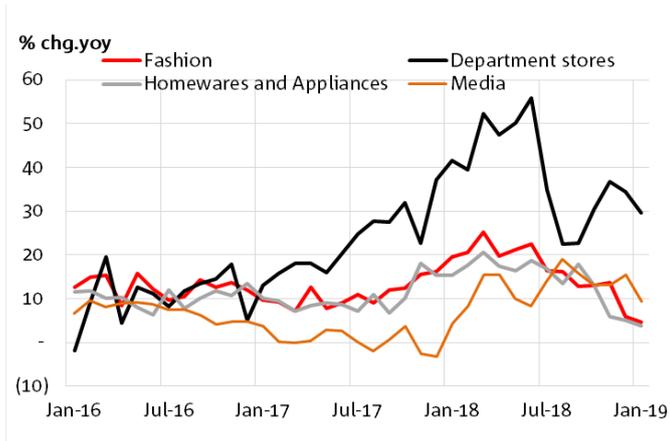
Chart 5: Online retail sales by industry, mom s.a.

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

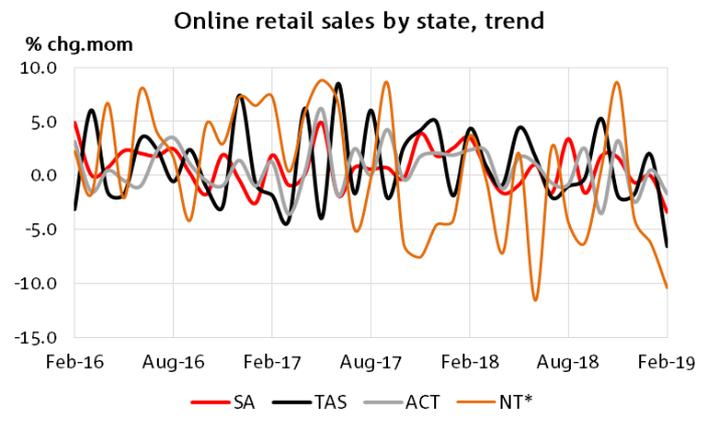
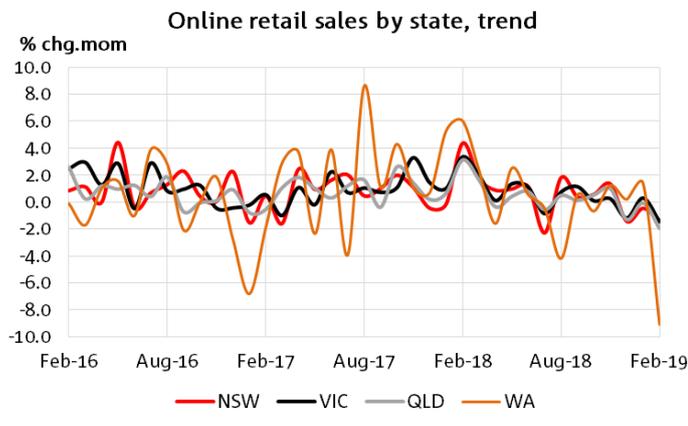


* Note that the series for the Northern Territory is highly variable and should be used with caution

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

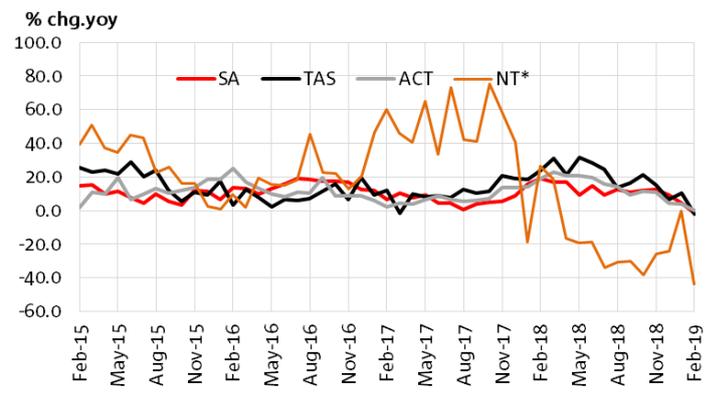
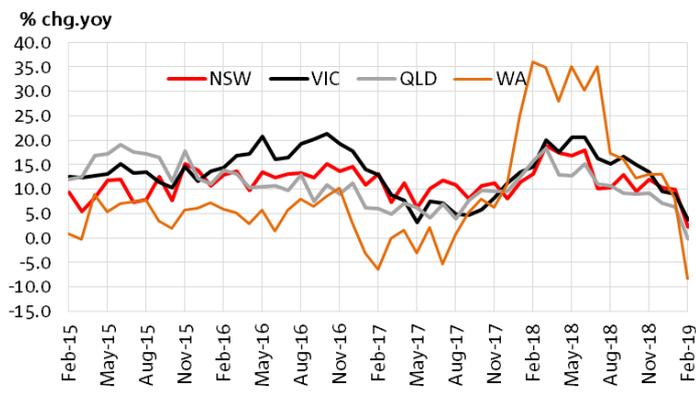


Charts 9 & 10: Online sales by state, trend



*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.



Charts 13 & 14: Online sales by merchant location

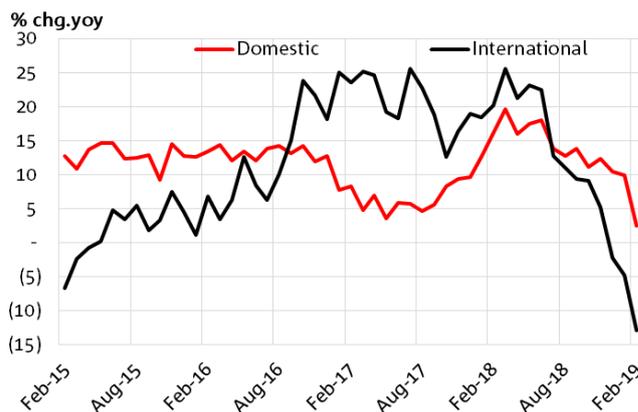
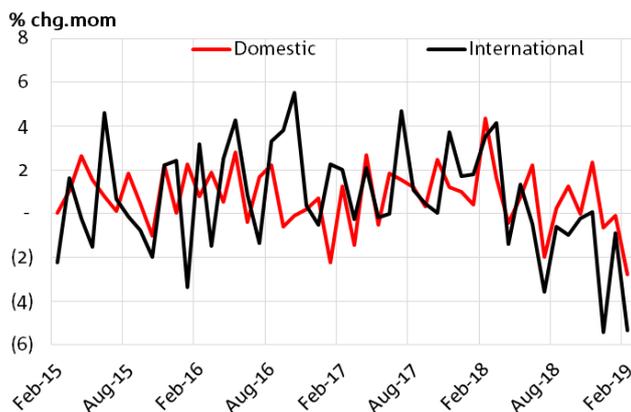
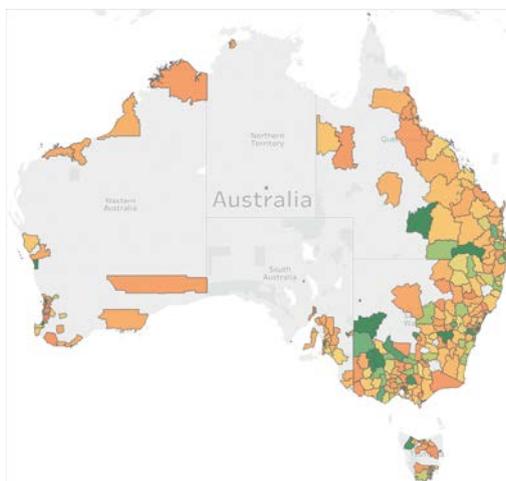


Table 3: Online sales by category and merchant location

%	Monthly growth - Domestic	Monthly growth - International	Annual growth - Domestic	Annual growth - International	Domestic Share of Category Spend	International Share of Category Spend
Fashion	-2.3	-3.2	2.4	-6.4	77.51	22.49
Department stores	0.3	-9.5	30.2	-13.4	84.67	15.33
Homewares and appliances	-4.5	-6.3	-2.8	1.5	96.24	3.76
Media	-1.0	-8.0	9.2	-27.8	89.17	10.83
Personal and Recreational	-3.2	-1.0	-5.5	-9.5	90.92	9.08
Grocery and Liquor	-3.6	-12.8	-1.1	-18.8	95.12	4.88
Games and Toys	-1.4	-6.2	26.4	-29.4	77.20	22.80
Takeaway Food	-2.5	1.0	-5.8	30.2	97.44	2.56
All categories	-2.9	-5.6	2.3	-13.1	90.04	9.96

A HEATMAP VIEW OF AVERAGE ONLINE SPEND BY LOCAL GOVERNMENT AREA

Online spend can vary dramatically depending on where people live. The map below shows average spend for each online transaction. Not all the top average spend areas are in capital cities, nor are they all in remote areas.



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.

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.

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. 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.

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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