



NAB ONLINE RETAIL SALES INDEX

MAY 2023

- On a month-on-month, seasonally adjusted basis, growth accelerated rapidly in May (3.7%) after an upwardly revised result for April (0.2%, was flat 0.0%).
- In year-on-year terms, the contraction in growth that has occurred over the past year ended in May, with a return to growth (4.9% y/y).
- All categories, except media, recorded growth in the month, with a particularly strong rebound in the largest category, homewares and appliances, along with fashion, and department stores. Personal and recreational goods also recorded strong growth, accelerating in the month. In year-on-year terms however, the largest sales category continued to contract, albeit at a much slower pace. This contraction was at odds with all other categories, except department stores, which was flat. For more detail, see charts 3, 5, 7 & 8 and table 3 below.
- All states and territories recorded growth this month, with SA leading. The largest sales states, VIC and NSW, recorded slightly slower growth, but within range of the overall index. The return to growth was also observed in year-on-year terms, with all states recording growth as the base effects of the pandemic period dissipate. See charts 4, 6, 9-14, and table 3 for more detail.
- Metro areas generally fared better in the month, with growth above the overall, while regional areas were slightly below. Both, however, accelerated in the month. Similar result in year-on-year terms, with both metro and regional areas returning to growth. See Charts 15 and 16 for more detail.
- The acceleration in growth for the month was driven by a rebound for domestic retailers. While international also recorded growth, the rate was much slower than the overall. In year-on-year terms, growth for international has outpaced domestic. This is partly due to activity for international retailers which was more subdued during the height of the pandemic period, and the addition of new entrants in the more recent period. See charts 13 and 14, and table 4 for category growth and share.
- NAB estimates that in the 12 months to May, Australians spent \$53.26 billion on online retail, a level that is around 12.7% of the total retail trade estimate (April 2023, Series 8501, Australian Bureau of Statistics), and a contraction (-5.1%) relative to the 12 months to May 2022.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	Mar-23	Apr-23	May-23
NAB Online Index	-2.1	-0.5	4.9
ABS Retail Trade	5.4	4.2	-

	Month-on-month growth (% s.a.)		
	Mar-23	Apr-23	May-23
NAB Online Index	-0.1	0.2	3.7
ABS Retail Trade	0.4	0.0	-

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 and ABS retail sales

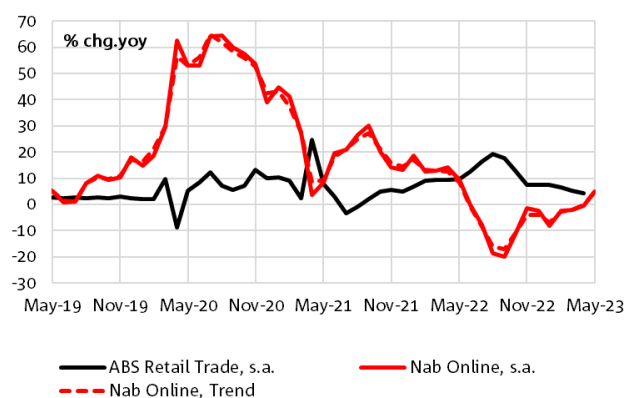
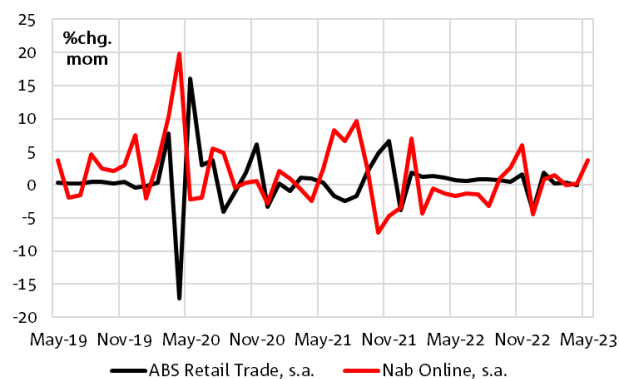


Chart 2: NAB Online retail trade data (mom, s.a.)



NAB Chief Economist, Alan Oster commented:

Our NAB Online Retail Sales Index grew rapidly this month, following on from very subdued growth over the past two months. This compares favourably to our broader indicator for total retail which also recorded growth, albeit at a far milder pace (0.5%).

Contributing strongly to the online result were the larger sales categories, fashion, homewares and appliances, and department stores, which recorded significant rebound on the month prior, along with an acceleration for personal and recreational goods. Of these, fashion, and household goods were also strong in the month for our broader measure. However, the department stores category was not aligned, with rapid growth in online, and a contraction in the broader measure. While it could be speculated that this is due to new entrants from international online aggregators, our data suggests that domestic online department store retailers outpaced their international counterparts this month.

It is also worth putting the monthly growth in context. Year-on-year growth returned in May for the first time since May 2022. The past 12 months retraced gains made during the height of the pandemic period. Based on the current results it's likely that these base effects have now subsided. So, it will take a few more monthly results like May to reverse the decline in the 12 months to metric. In an environment where consumer spending is generally softening, this is made more difficult.

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

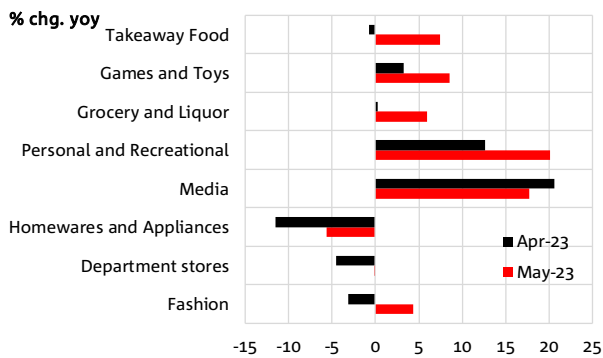


Chart 4: Online retail sales by state, yoy s.a.

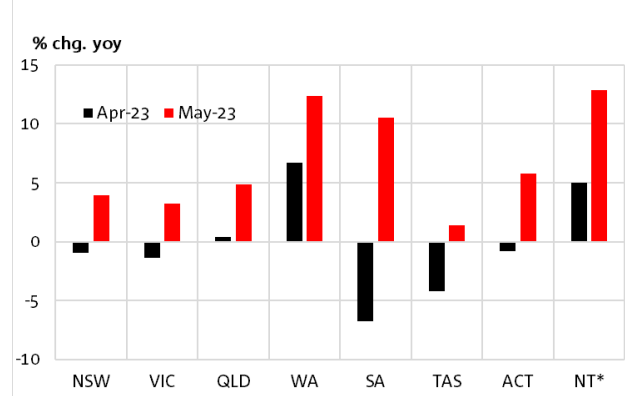
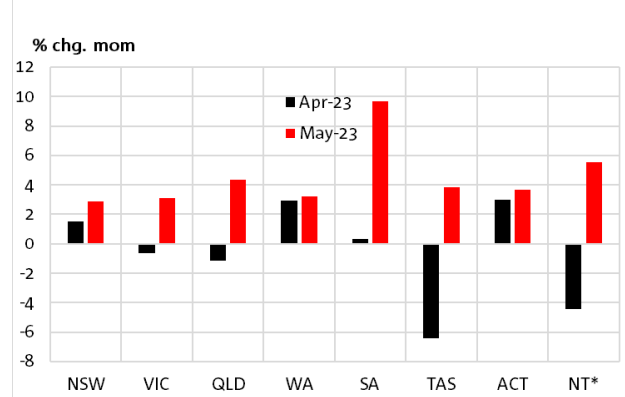


Chart 5: Online retail sales by category, mom s.a.

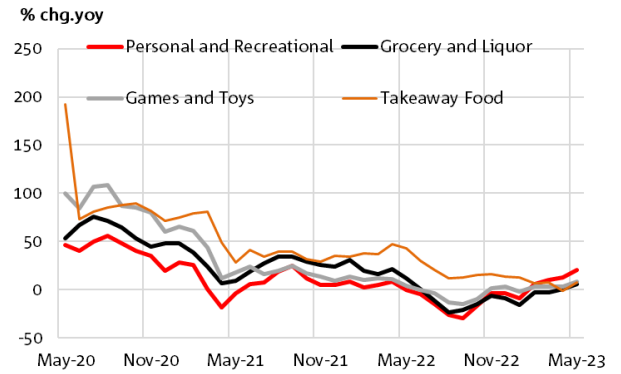
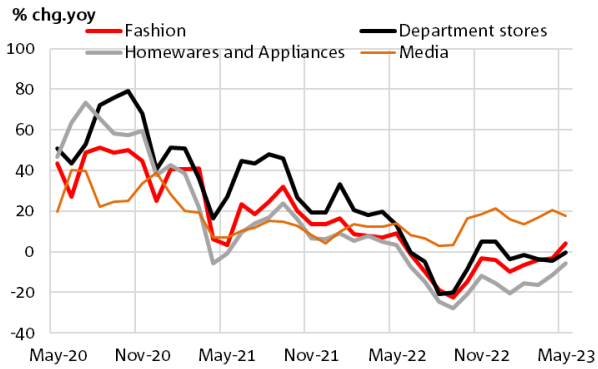


Chart 6: Online retail sales by state, mom s.a.

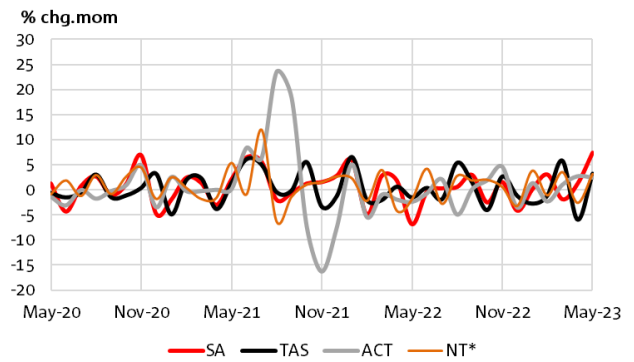
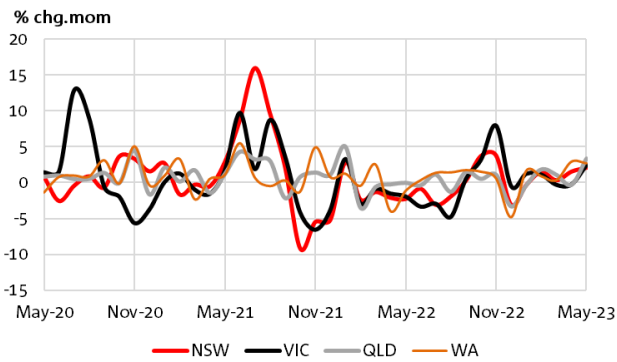


* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

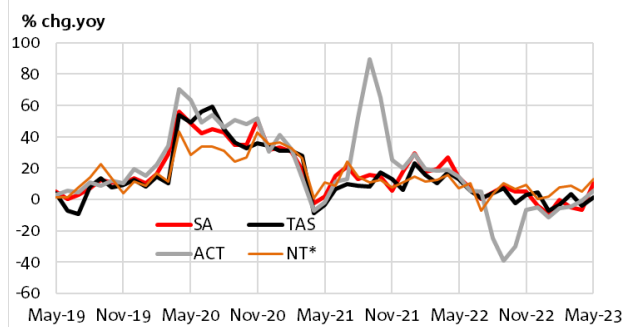
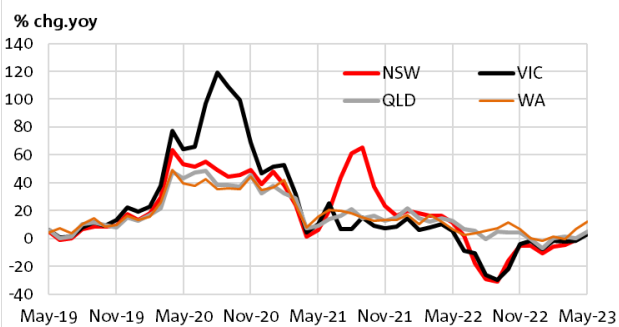


Charts 9 & 10: Online sales by state, trend



*Note that the series representing 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

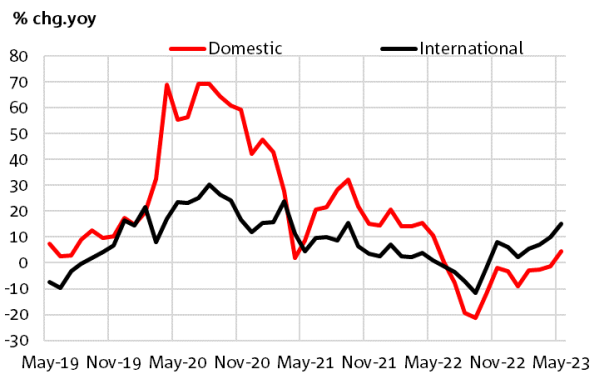
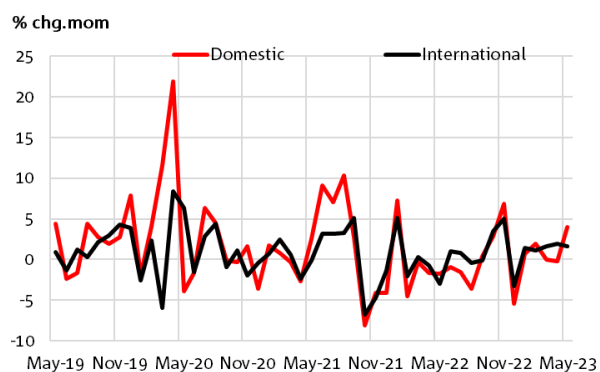


Table 3: Online sales by category and state

% (mom,s.a.)	Fashion	Dep't stores	Home & appliances	Media	Personal and Rec.	Grocery and Liquor	Games and Toys	T'away Food	Total
ACT	6.2	5.7	5.7	-2.9	10.1	1.5	1.5	-2.8	3.7
NSW	5.6	3.6	3.2	-3.1	5.7	2.0	0.5	2.8	2.9
NT	-6.4	9.0	31.2	-6.0	8.1	-2.3	-6.9	10.9	5.5
QLD	8.5	8.1	5.0	-1.8	2.5	2.7	2.1	6.0	4.3
SA	6.9	6.8	24.4	-2.1	14.2	5.4	4.4	3.5	9.7
TAS	16.4	1.8	5.9	-0.6	4.5	0.4	-0.2	4.2	3.8
VIC	8.2	3.2	4.3	-1.8	2.9	1.2	1.5	3.9	3.1
WA	2.3	2.4	6.9	0.2	5.5	3.0	0.8	0.4	3.2
Total	6.8	4.5	5.4	-2.1	4.6	2.2	1.4	3.5	3.7

Table 4: Online sales by category and merchant location- Domestic, International (Int'l)

%	Monthly growth – Domestic	Monthly growth – Int'l.	Annual growth – Domestic	Annual growth – Int'l.	Domestic Share of Category Spend	Int'l Share of Category Spend	Overall Category Spend Share
Fashion	7.6	0.4	3.7	3.2	82.3	17.7	10.6
Department stores	4.5	4.0	-1.1	14.9	91.9	8.1	16.9
Homewares and appliances	4.9	-0.5	-6.9	12.2	95.7	4.3	20.4
Media	-1.9	-6.8	19.2	8.8	92.3	7.7	7.6
Personal and Recreational	5.3	-0.3	20.4	25.4	88.9	11.1	11.7
Grocery and Liquor	0.6	-0.5	4.8	8.9	96.4	3.6	15.6
Games and Toys	1.5	2.7	5.2	20.3	81.7	18.3	9.2
Takeaway Food	3.5	1.3	6.8	74.0	98.6	1.4	8.0
All categories	4.0	1.6	4.5	15.0	91.6	8.4	100

METROPOLITAN AND REGIONAL SPEND

Chart 15: Online retail sales growth by region, yoy s.a.

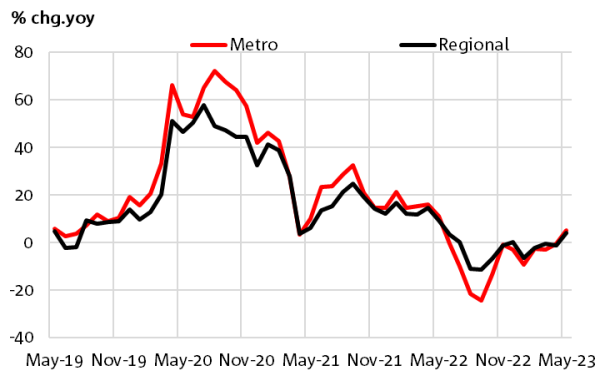
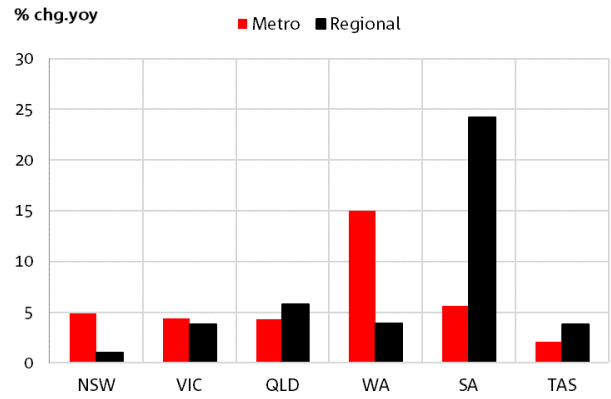


Chart 16: Online retail sales growth by state region, yoy s.a.



APPENDIX: METHODOLOGY

The NAB Online Retail Sales Index is now sourced in-house and is produced by Group Economics. We have made some significant changes to the NAB online series. Importantly, we have merged SME and Corporate Online into a single index, and provide more detail by region and industry on a monthly basis.

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. We have made adjustments for where merchants appear to be wholesaling goods as opposed for final household consumption, and also incorporate new standards involving purchases using stored customer details. 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 most recent ABS Estimated Resident Population, and comparing NAB transaction data to RBA payments system data. Changes in these data are reflected in the NORSI market size estimate timeseries.

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 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.

As part of the continual improvement of the series, this month we have revised our total market estimates. We have identified and removed potential wholesale trade transactions made on personal accounts. We have also identified more transactions that are made using a 'stored credentials' technique of online purchases. This technique is increasing in popularity as consumers opt for convenience especially with purchases made using mobile apps. Finally, in March 2018 the RBA made changes to its Payments System Data which we use as an input into our estimate of online total market size. These revisions are retrofitted to the series history.

We have also added a comparison based on metropolitan and regional areas. The definition of these geographical areas is based on the ABS geographical concordance tables, specifically the Greater Capital City Statistical Areas (GCCSAs).

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