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Household Spending Intentions

20 January 2022



Household Spending Intentions – Dec 2021

Welcome to the third edition of our new CommBank Household Spending Intentions (HSI) Index. We combine CBA internally generated transaction and lending data with publically available Google search terms to provide a view not only on what Australians were spending money on, but also what they intended to spend money on.

The HSI series now covers 12 spending categories—covering almost all consumer spending. The other major enhancement is the introduction of the HSI Index – a single data point that represents the weighted change in the 12 individual spending categories. Significantly, changes in the HSI Index are well correlated with the annual change in National Accounts household final consumption data and we think this series will, in time, become an important data set for the Australian economy, financial markets and policy makers. Please refer to the HSI hub at www.commbank.com.au/HSI for further details.

For December 2021 the highlights of the HSI index include:

- The CommBank HSI Index rose by 2.5%/mth in December to be at 115.0, the highest since the series began in July 2017. Retail, Travel and Transport rose strongly, Home buying fell again.
- The Travel index lifted by a sharp 28.1%/mth as it continues its post lockdown recovery. It is up by 20.9% over the year.
- The Transport Index was up by a strong 11.8%/mth in December and 34.8%/yr.
- The Retail index was up sharply, by 10.8% due to Christmas shopping and is 2.8% higher over the year.
- The Entertainment index rose by 4.9%/mth in December but still remains weaker over the year, down by 7.1%.
- The Household services index was up by 3.5%/mth and by 8.0%/yr.
- The Insurance cost index was up by 1.8%/mth and by 3.9%/yr.
- The Communications & digital index rose by 0.1%/mth and is down by 0.2%/yr
- The Education index fell a small 0.3%/mth and is up by 2.9%/yr.
- The Utilities index fell by a modest 0.8%/mth and is up by 0.8%/yr
- The Motor vehicle index fell by 2.9%/mth in December but remains 27.7% higher over the year.
- The Health & fitness index fell by 6.0%/mth after recent gains and is up 9.9% over the year.
- The Home buying index fell again, down by 17.3%/mth in December. It is a generally weak month seasonally for home loan applications and was compounded by falls in Google searches for real estate listings.

CommBank HSI Index

December 2021

115.0

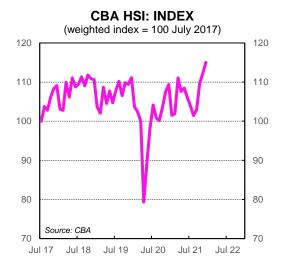
+2.5% / mth

+5.2% / yr

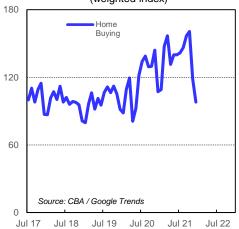
The 2.5% rise in the HSI index in December was driven by strong gains in Retail, Travel and Transport and was offset by a decline in Home buying

Spending Category	Mthly change %	Yr change %
Travel	+28.1	+20.9
Transport	+11.8	+34.8
Retail	+10.8	+2.8
Entertainment	+4.9	-7.1
Household Services	+3.5	+8.0
Insurance Costs	+1.8	+3.9
Communications & Digital Streaming	+0.1	-0.2
Education	-0.3	+2.9
Utilities	-0.8	+0.8
Motor Vehicle	-2.9	+27.7
Health & Fitness	-6.0	+9.9
Home Buying	-17.3	-8.6

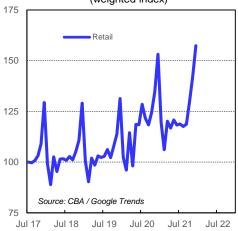
HSI Dashboard



CBA HSI: HOME BUYING (weighted index)



CBA HSI: RETAIL (weighted index)



HSI Index

- The CommBank HSI Index rose by 2.5%/mth in December to 115.0. On an annual basis the HSI index is up by 5.2%/yr.
- At 115.0 the HSI Index is at its highest level since the series commenced in July 2017. December is generally a seasonally strong time for the Retail category due to Christmas shopping. However compounding that this year was the end of restrictions post Delta and accumulated household savings leading to a strong surge in spend.
- Transport and Travel also lifted as mobility continued to recover post lockdown and on the reopening of state and international borders.
- The outbreak of Omicron which led to a surge in COVID cases late in December and into January is an important development to watch. It will impact the demand and supply side of the Australian economy. We can see from our high frequency credit & debit card data there does appear to be a fall in spending on services in January. You can read more on our outlook here and card data here.

Home buying intentions index

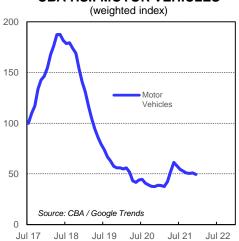
- The Home buying spending intentions index dropped again, down by 17.3%/mth in December. It is lower by 8.6%/yr. December is a seasonally weak month each year for home loan applications. This year was no different and was compounded by falls in Google searches for real estate listings.
- Adding to the seasonal fall is some moderation in the housing market.
 We have seen this across other indicators. Some lenders have
 increased fixed rate interest rates which will cool lending and dwelling
 price growth. We have already seen monthly dwelling price gains
 moderate in the later stages of 2021. We expect this to continue in
 2022 before falls in 2023.

Retail spending intentions index

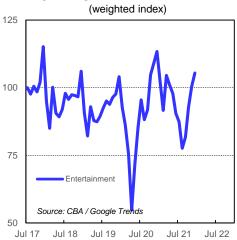
- Retail spending intentions continued to improve in December, up by a
 further 10.8%, its fourth consecutive monthly lift. A normally seasonal
 strong month as well as continued recovery post the Delta lockdown
 fuelled the gains. Relative to December 2020 the Retail spending
 intentions index was up a solid 2.8%/yr and is up 33.9% from the Delta
 lockdown low of August 2021.
- Gains on the year were driven by increases in spending on; speciality retail stores, department stores, men's & women's clothing stores, electronic stores, jewellery & watch stores and hardware stores.
- There were falls in spending at liquor stores as consumers continued to shift to spending on eating & drinking out. There were also falls in spending on discount stores.
- One of the big trends to disentangle over the coming months will be the fall in spending due to isolation requirements and consumer caution versus the inability to consume goods given supply shortages.
- These numbers confirm our expectation that the Christmas shopping period was very strong, helped by post Delta lockdown demand, a tight labour market and accumulated household savings.



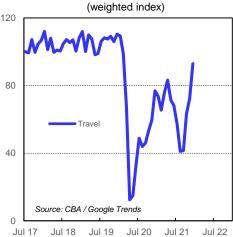
CBA HSI: MOTOR VEHICLES



CBA HSI: ENTERTAINMENT



CBA HSI: TRAVEL



Motor vehicle spending intentions index

- The Motor Vehicle spending intentions index was down by 2.9%/mth with falls in six out of the seven past months.
- The falls reflected a lower dollar value of motor vehicles purchased and a smaller number of loan applications for vehicles. There was also a small fall in Google searches as well.
- On an annual basis, motor vehicles spending intentions are still up a solid 27.7% but the annual gain remains elevated at this stage due to a strong first half of 2021 which will soon fall out of the annual calculation.
- Supply issues have been at play and are likely impacting the monthly numbers.

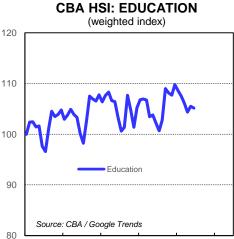
Entertainment spending intentions index

- The Entertainment spending intentions index rose by 4.9% in December, the fourth consecutive monthly gain. The category does remain 7.1% below the December 2020 level with the Omicron variant began to impact NSW and Vic late in the year. December is generally a stronger month for the category due to Christmas and holiday gatherings.
- Relative to December 2020 the largest increases in Entertainment spending were for; eating & drinking out, takeaway, live theatre, movie theatres, hobby & toy stores, commercial photography, record stores and caterers.
- There continues to be reduced spending compared to a year ago for music stores and book stores as how we consume these items changes. There also continues to be less spending at amusement parks.

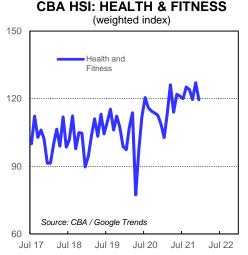
Travel spending intentions index

- The Travel spending intentions index rose by a further 28.1%/mth in December, the fourth consecutive gain.
- The reopening of state borders and the seasonal upswing from summer holidays led to the gains in the month. The index is now up a strong 20.9% over December 2020 levels and 126.1% since the Delta lockdown low in August 2021. The Travel index does still remain 15.9% below December 2019 levels as hesitancy and availability of flights remains an issue in the sector.
- Relative to December 2020, December 2021 saw increases in spending on; hotels, motels and resorts, travel agent spend was up sharply (but still remains below December 2019 levels), tourist attractions, trailer parks & campgrounds and camper, recreational & utility trailer dealers.
- With lifts in spending on petrol and still weak spending on airlines we expect a lot of Australians travelled regionally and by car in December.
 We expect regional areas to have benefited from this.
- The only category which was lower over the year was airlines.





Jul 18 Jul 19 Jul 20 Jul 21



CBA HSI: INSURANCE



Education spending intentions index

- The Education spending intentions index was down by 0.3%/mth in December and up 2.9%/yr.
- December is a seasonally weak month for Education spend and there were falls in the number of Education spending transactions in December 2021 relative to December last year. Google searches were also down marginally.
- There were falls in spending in all categories in the month apart from schools & education services. There were large falls in spending on colleges, universities & professional schools, business & secretarial schools and correspondence schools.

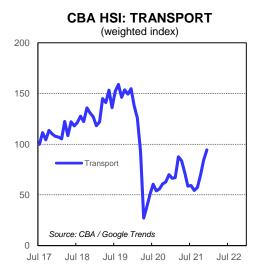
Health & fitness spending intentions index

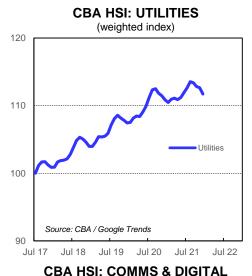
- The Health & fitness spending intentions index fell by 6.0%/mth in December 2021 with spending value down slightly with a larger fall in Google searches dragging the index lower. Relative to December 2020 the index is up a solid 9.9%/yr.
- Relative to December 2020, Health & fitness spending intentions in December 2021 fell for hospitals, hearing aids and ambulance services.
- There have been strong gains relative to December 2020 on spending at pharmacies & drug stores, medical services, doctors, dentists & orthodontists, opticians and health and beauty spas.

Insurance spending intentions index

- The Insurance spending intentions index was up a modest 1.8%/mth in December 2021, with the annual rate of increase improving to 3.9%/yr.
- Spending intentions in this sector have shown some volatility during the COVID-19 period, with the slight downward trend evident during the Delta lockdowns now seemingly passed.









Transport spending intentions index

- The Transport spending intentions index jumped by 11.8%/mth in December, taking the gains since the Delta lockdown low in August 2021 to 73.4%. Mobility is returning in the Australian economy but it still remains well below pre COVID levels. Over the past two years the Transport index is down by 39.0%.
- The higher petrol price is likely a key factor supporting the index in recent months, with spending at service stations continuing to lift. Spending on taxi services was stronger compared to December 2020 and remains just below December 2019 levels. Relative to December 2020 we continue to see a lift in spending on tolls, car washes and truck & utility trailer rentals.
- The key areas of weakness relative to December 2020 remains public transport usage. The work from home shift is impacting these services. Spending on passenger railways and local & suburban commuter passenger transportation, ferries remains lower than a year earlier and well down on December 2019 levels.

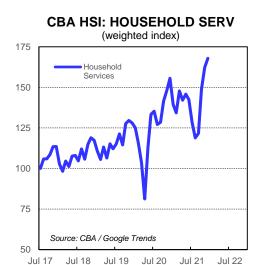
Utilities spending intentions index

- The spending intentions index for Utilities was down a marginal -0.9%/mth in December 2021, but was a little higher than December 2020 at +0.8%/yr.
- Actual spending on utilities was lower in December 2021 relative to November 2021, Google searches related to oil & gas was higher but searches for renewable & alternative energy were lower in the month.

Communications & digital spending intentions index

- The Communications & digital spending intentions index was little changed in December 2021 at +0.1%/mth, but marginally lower at -0.2%/yr relative to December 2020. Spend was a little lower over the month but we did see a lift in Google searches.
- Relative to December 2020, increases in spending were seen for: digital games, digital books, movies and applications. There was also a lift in spending on computer network and information services.
- This was partly offset by reduced spending for; computer software stores, telecommunications equipment and computer equipment.





Household services spending intentions index

- The Household services spending intentions index showed another rise in the month, up by 3.5%/mth in December 2021. This was the fourth consecutive lift, taking the gains since the Delta lockdown low to 41.3%. The lift was driven by higher actual spending and an increase in the number of transactions. It was partly offset by a decline in Google searches.
- Relative to December 2020, December this year saw spending lift for: beauty & barber services, vets, charities and child care.
- There were falls in spending on categories focussed on home improvement including air conditioning services, special contractors, electrical contractor and cleaning & maintenance services.

Household Spending Intentions (HSI):

When we launched the Household Spending Intentions (HSI) series in July 2019 the idea was not only to focus on what Australians were spending money on, but what they intended to spend money on. To do this, the Commonwealth Bank has an advantage. With over 16 million customers and using an ongoing sample of more than 2.5 million households, the CBA generates a significant amount of close to "real time" data on how the economy is travelling.

This information relates particularly to the household sector – the dominant sector of the economy, including spending, income, savings and lending. All these internally generated data points are coincident indicators of economic activity, although they are leading indicators in a publication sense – as we receive and publish insights using this data well ahead of the official data releases from the Australian Bureau of Statistics.

Of course, as noted above, what we are really interested in is not just what people are spending money on, but what they intend to spend money on. One approach is to ask people about their confidence levels and whether they think now is a good time (or not) to buy. But we think there is a better, more modern way, and that is to use internet searches as an indicator of what people intend to spend money on. To do this we use publically available Google Trends search data.

By combining the internally generated CBA spending and lending data with publically available Google trends search data, the Household Spending Intentions (HSI) provides key insights into both current spending patterns and spending intentions.

When we launched the HSI in July 2019, we covered seven different categories of household spending: Home Buying, Retail, Travel, Health & Fitness, Entertainment, Education and Motor Vehicles. Together these spending categories covered about 55% of total consumer spending in the economy.

After just over two years of the original HSI, the time is now right to expand the series. To do so we have added five new spending categories: Financial and insurance costs, Transport, Utilities, Communications & Digital Streaming and Household Services. Adding these new spending categories has also given us the opportunity to upgrade and re-order the detailed spending sectors included in each category. Full details of what spending is in each category are provided in the tables below.

Introducing the HSI Index:

But perhaps the most significant enhancement in this updated version of the Household Spending Intentions series is the addition of the HSI Index.

Each month we will publish the HSI Index, using the changes in the 12 spending categories, weighted according to their share of household consumption. The index is based at 100 as at July 2017. An index number above 100 indicates that Household Spending Intentions are higher than they were as at July 2017, while a number below 100 indicates weaker spending.

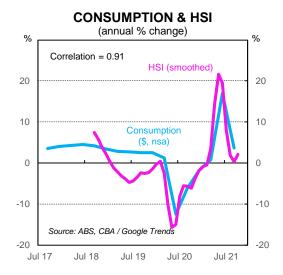
Each month we will publish the HSI Index, as well as the monthly % change and the annual % change. But perhaps more importantly, each of the individual 12 spending categories will also have its own index (based at 100 in July 2017) and we will be able to attribute changes in the HSI Index to each spending category.

We see the HSI Index as a major step-forward in the data available to our clients and the Australian community more generally to help provide insights into the current and future state of household spending.



HSI Index correlation to National Accounts consumer spending:

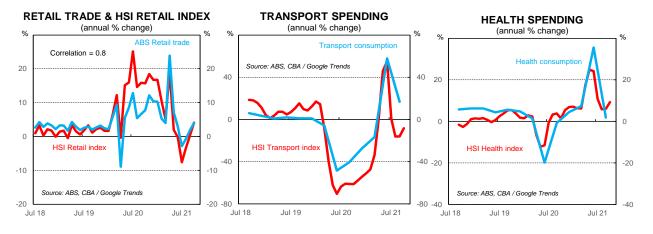
The good news is that the HSI index is very well-correlated with the non-seasonally adjusted National Accounts measure of nominal household final consumption¹. The correlation coefficient of the two series on an annual change basis is 0.90 for the period from Q3 2018 to Q3 2021. Over that same period, the correlations for other consumption indicators were lower.



The HSI index is a coincident indicator of household consumption. But they are leading indicators in a publication sense. The National Accounts measure of consumption is released just over two months after the end of each quarter. By contrast, CBA's HSI index will be released monthly, at approx. one week after the end of each month (ie. publication is planned for the second Tuesday of each month).

Given the high correlation it is no surprise that a simple linear regression model using the HSI index as the independent variable performs well in fitting to the historical National Accounts consumption data. It explains a far larger share of historical spending than other indicators like consumer sentiment do on their own. The HSI index explains around 80% of the variation in household consumption in the National Accounts. In addition to CBA's internal card spending data, the use of Google Trends data helps to augment the HSI index. In general, adding in the Google search categories improved model performance by around 15%, though this did vary by spending category.

Many of the subcomponents of the HSI index also correlate well with their official statistical counterparts. The HSI Retail index is very well-correlated with the official Retail Trade figures, with a correlation of 0.8. Other spending categories, for instance the HSI Health and Transport indexes also track their respective consumption categories in the National Accounts fairly closely.



A few caveats...

One point to keep in mind is that the history of the HSI is fairly short. So the estimated correlations and relationship with consumption are based on relatively small sample sizes. And the sample would be smaller still if we were to exclude the unusual pandemic period and only consider the HSI's ability to track consumer spending in 'normal' times. It may be the case that the

¹ With thanks to Stephen Wu for his correlation work.



HSI's relationship with consumption is stronger during major turning points, as has been shown to be the case for consumer sentiment. For instance, see this RBA article.

There is another caveat to be aware of. The HSI index and its individual spending category indices are well-correlated to *non-seasonally adjusted* and *nominal* values of consumption. That should not be surprising as the CBA's internal card spending data are a key input into the HSI and so the index reflects actual spending that occurs. But the more relevant economic variables – and importantly, the ones that markets pay most attention to –strip out any seasonal patterns and pricing changes (i.e. they are seasonally and inflation adjusted). However, the history of the HSI is not yet long enough to perform seasonal adjustments. And it is difficult to construct the implicit price deflators that are used to calculate real volumes – for some of these categories of consumption the values and volumes measures can differ substantially.

The 12 HSI 2.0 spending categories in detail:

The full list of 12 spending categories are below and now account for close to 100% of consumer spending.

- 1) Home Buying.
- 2) Retail.
- 3) Motor Vehicle.
- 4) Entertainment.
- 5) Travel.
- 6) Education.
- 7) Health & Fitness.
- 8) Insurance costs.
- 9) Transport.
- 10) Utilities.
- 11) Communications and Digital Streaming
- 12) Household Services.

Home buying:

CBA Home loan applications for owner occupiers and investors

Retail:

- Alcoholic beverages from package stores.
- Clothing and footwear, including; men, women, children, uniforms, footwear, repairs/alterations and cleaning/laundry services.
- Food and non-alcoholic beverages, including; supermarkets/grocery stores, dairy product stores.
- General retail, including; department stores, duty free and second hand stores.
- Household furnishings and equipment, including; electrical equipment & appliances, furniture, floor coverings, glass, paint/wallpaper, hardware & tools, lumber & building supplies, nurseries, plumbing/heating equipment.
- Jewellery, watch, clock, and silverware stores.
- Luggage and leather goods stores.
- School, stationery and office supply stores.
- Personal care stores.
- Cosmetic stores.
- Electric razor stores.
- Recreation.
- Antique shops.
- Books and newspapers.
- Camera and photographic supply stores.
- Electronic stores.
- Florist supplies, nursery stock, and flowers.
- Pet shops, pet foods, and supplies.
- Tobacco products.

Motor Vehicle:



- Car and truck dealers (new and used) sales, service, repairs, parts and leasing.
- Car and truck dealers (used only) -sales, service, repairs, parts and leasing.
- Motorcycle shops and dealers.

Entertainment:

- Amusement Parks, circuses & carnivals.
- Aquariums.
- Art dealers and galleries.
- Betting, including lottery tickets, casino gaming chips, off-track betting and race tracks.
- Boat dealers, rentals and leasing.
- Book stores.
- Bowling alleys.
- Caterers.
- Commercial photography, art and graphics.
- Dance halls, studios and schools.
- Drinking places bars, nightclubs, cocktail lounges etc.
- Eating places and restaurants.
- Fast food restaurants.
- Hobby, toy and game stores.
- Marinas, marine service and supplies.
- Motion picture theatres.
- Music and record stores.
- Theatrical producers (except motion pictures) and ticket agencies.
- Video game arcades and establishments.

Travel:

- Airlines and air carriers.
- Airports and airport terminals.
- Bus lines
- Camper, recreational and utility trailer dealers.
- Hotels, motels and resorts.
- Motor home and RV rentals.
- Trailer park and camp grounds.
- Package tour operators.
- Travel agencies and tour operators.
- Sport and Recreation camps.
- Cruise lines.
- Tourist attractions and exhibits.

Education:

- Business and secretarial schools.
- Colleges, universities and professional schools.
- Correspondence schools.
- Elementary and secondary schools.
- Schools and educational services.
- Trade and vocational Schools.

Health & fitness, including

Health:

- Ambulance services.
- Osteopaths, podiatrists and chiropractors.
- Dentists and orthodontists.
- Doctors and Physicians.
- Pharmacies.
- Health and beauty spas.
- Hospitals.
- Medical labs.



- Nursing and personal care facilities.
- Opticians and eyeglasses.

Fitness

- Bicycle shops sales and service.
- Commercial and professional sports clubs.
- Sport, recreation and athletic club membership.
- Public & private golf courses.
- Sporting goods stores.

Insurance:

- Direct marketing insurance services.
- Insurance sales, underwriting and premiums.

Transport:

- Automotive fuels and service stations.
- Automotive associations.
- Automobile rental agencies.
- Automotive body repair, parts and paint shops.
- Automotive service and tyre shops.
- Car washes.
- Motor freight carriers and trucking local and long distance, moving and storage companies and local delivery.
- Parking lots and garages.
- Passenger railways.
- Taxicabs and limousines.
- Toll and bridge fees.
- Towing services.

Utilities:

• Electric, gas, water and sanitary utilities.

Communications and Digital:

- Cable and other pay television services.
- Computer network/information services.
- Computers, computer equipment and software.
- Digital goods: Applications books, movies, music & games.
- Telecommunication services, including local and long distance calls.
- Telecommunications equipment and telephone sales.
- Video amusement game supplies.

Household Services:

- Architectural, engineering, carpentry and surveying services.
- Beauty and barber shops.
- Cleaning services.
- Charitable and social service organisations.
- Child care services.
- Concrete work contractors.
- Electrical contractors.
- Funeral services and crematories.
- Heating, plumbing, and air conditioning contractors.
- Landscaping and horticultural services.
- Masonry, stonework, tile setting, plastering and insulation contractors.
- Roofing contractors.
- Swimming pools--sales, supplies and service.
- Veterinary services.



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- ii. Determined that the transaction is appropriate;
- iii. Ensured he/she has the knowledge to evaluate and capacity to accept the terms, conditions and risks; and
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