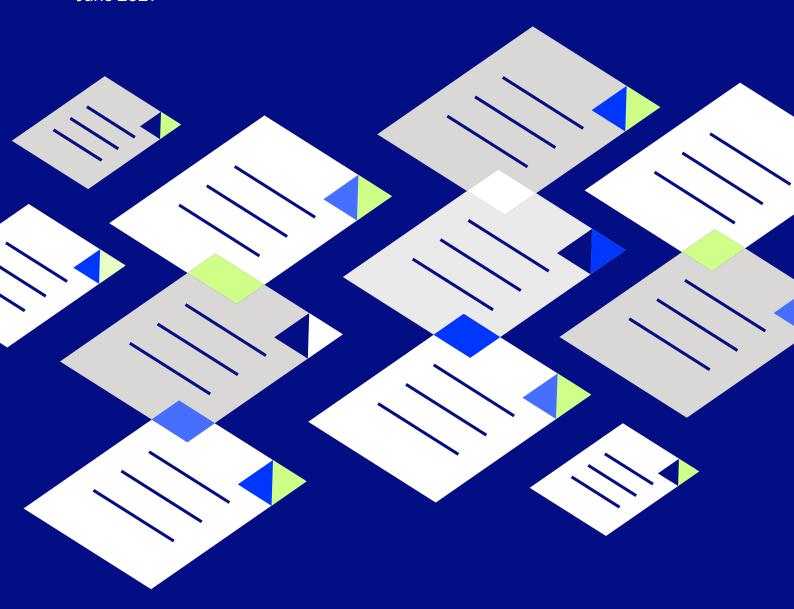
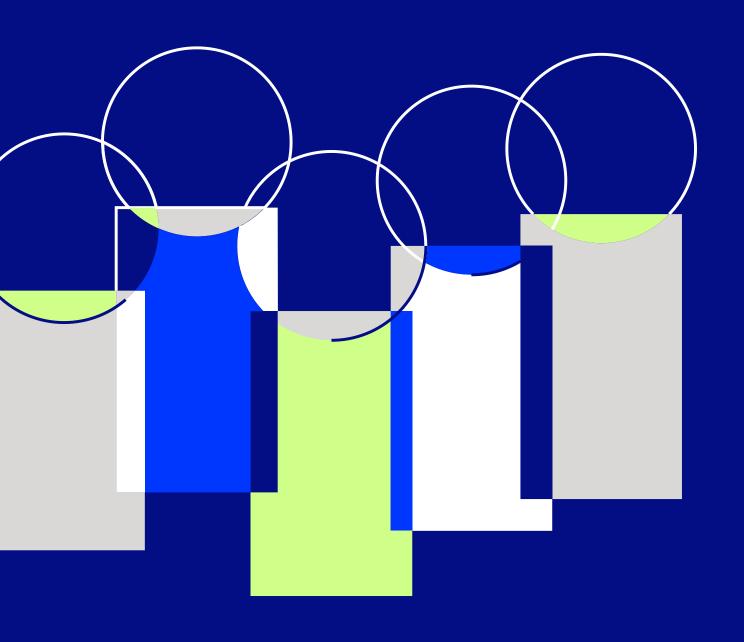
AUSIEX

Australia's trading transformation

A comparative analysis of how market segments are approaching today's market, and what it means for advisers and investors.

June 2021





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Foreword

A year like no other

The year 2020 will undoubtedly long be remembered as a year like no other, due to the first global pandemic in 100 years and its transformative impact on the world.

However, writers of financial history may also mark 2020 as a pivotal year for share trading. The COVID-19 pandemic and other key events throughout the year (such as the Australian bushfires, President Trump's impeachment, Brexit finalisation, Black Lives Matter protests, the US election and vaccine rollouts) saw both volatile markets and adoption of online trading accelerate by five to 10 years.

More people trading

According to the ASX¹, 23% of Australia's nine million equity investors began investing in the past two years. In 2020, the retail trading sector alone grew from around 650,000 online share traders to over 1.25 million².

What we saw during 2020 can only be described as a 'trading transformation'...

As one of Australia's largest wholesale brokers, AUSIEX has a comprehensive and unique view of trading activity across the self-directed and advised market, trading \$55.25 billion of the total Australian market in 2020.

What we saw during 2020 can only be described as a 'trading transformation' and our observations of the market activity last year led us to produce this paper – both to analyse activity based on our proprietary data and provide our insights into what these developments mean for trading in Australia.

This is the first time in recent memory that the market has undergone a step-change in investors. We saw an increase in the number of investors across all segments, demographics shifted as more young investors and female investors entered the market, and more investors got 'active with passive', specifically investing much more in Exchange Traded Funds (ETFs). 2020 saw AUSIEX trade \$7.9bn in ETFs, an increase of 46.8% over 2019, and the number of customers trading ETFs (across our entire book) increase by 32.9%.

Trading transformation

The past year can also be seen as a tale of two different trading strategies. We saw self-directed investors skew towards short-term buy-sell style investing, while advisers (whether trading directly with AUSIEX or through a platform) stuck to their strategies and were not as heavily influenced by the market volatility.

This step-change and the resulting behaviours will require the industry to continue to change and adapt. As an engine that drives share trading in this country, AUSIEX aims to partner with financial institutions, intermediaries, advisers and industry participants as they navigate this new and expanded market.

This is not the first market evolution that AUSIEX has seen; we have been providing trading solutions for over 25 years. With the foundations of our business stretching back to 1994, we bring together some of the most experienced names in wholesale broking. From 2007, we were formally part of CommSec since our acquisition by the Commonwealth Bank of Australia (CBA), however in May 2021, AUSIEX was acquired by Nomura Research Institute (NRI).

Now, as a stand-alone entity under the new ownership of NRI, we are positioning our business to capture the enormous opportunities we foresee in the Australian wholesale trading market in the coming years, including the need for greater agility as pricing, cost and industry structures evolve and market disruptors continue to arrive.

As a well-capitalised, strong counterparty to our clients, our vision is to be the leading provider of integrated trading and asset administration solutions in Australia. I am delighted as the inaugural CEO to present this report to you – our first as AUSIEX – that I believe reinforces our firm commitment to helping our customers grow the wealth of Australians.

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I hope you find these insights useful.

Eric Blewitt CEO, AUSIEX

¹ ASX, May 2020

² Investment Trends, 2020 Second Half Australia Online Investing Report

About AUSIEX

With over 25 years of experience in the local market and the backing of a multinational trading technology powerhouse, AUSIEX combines deep expertise with trusted and reliable technology to deliver trading solutions for financial institutions, intermediaries, advisers and industry participants. Owned by Nomura Research Institute (NRI), AUSIEX specialises in equities execution, clearing and settlement services and equities administration for the wholesale market.

As one of Australia's leading providers of trading solutions, AUSIEX has used its scale, expertise and heritage to deliver value for advisers, brokers, many large institutions and tens of thousands of their clients by seamlessly connecting them to markets.



About NRI

Founded in 1965, Nomura Research Institute (NRI) is a trusted and innovative global powerhouse in technology and operations services.

NRI has a presence in every major financial centre worldwide. It is a world leader in innovative, cross-asset, multi-currency, front and back-end financial IT solutions for investment banks, asset managers, banks and insurance providers.

As a wholesale technology and operational services provider to the Japanese broking market, NRI serves over 80% of institutional brokers, 50% of retail brokers, and 80% of asset managers. Nearly every trade that happens in

Japan touches NRI in some way, and this is an aspiration for AUSIEX in the Australian market.

NRI has more than 13,000 employees across 69 subsidiaries in 15 countries, with more than 50 offices globally including New York, London, Tokyo, Hong Kong, Singapore, and Sydney. NRI reports annual sales above \$4.8 billion. NRI is rated "A" by S&P Global Ratings Japan.



Background

This paper analyses AUSIEX data on the trading of equities and ETFs across different market segments in Australia during the period between November 2019 and March 2021. This period was chosen as it covers milestone events such as the COVID-19 lockdown in Australia, the 2020 Presidential Election in the United States, the commencement of the COVID-19 vaccination rollout internationally, and the 'GameStop' trading phenomena.

The analysis compares the trading activities of different segments and how trading patterns may have changed compared to previous trading periods.







The paper also looks at trading in regard to specific areas, including:

- > Most traded ETFs
- > ESG stocks
- > ASX 200 stocks
- > Tech stocks
- > Travel stocks

This paper refers throughout to three time periods for comparison purposes. The periods are:

- > Pre-COVID between 1 November 2019 and 28 February 2020
- Lockdown between 1 March 2020 and 31 October 2020
- > Post-lockdown between 1 November 2020 and 31 March 2021

Methodology

AUSIEX analysed trading data from November 2019 – March 2021 across three segments:

- Advised Trades placed by advisers on behalf of clients directly with AUSIEX.
- > Advised (platforms) Trades placed by advisers on behalf of their client via a relevant platform. These trades are then executed via the AUSIEX trading engine.
- > Self-directed Trades executed by selfdirected clients on an institution's trading platform, which is powered by AUSIEX.

The differentiator in these segments is whether a trade is made by an adviser on behalf of a client or directly by the investors themselves. Personal choices and circumstances may influence a decision to take advice or not. There are insights to be gained in the behaviors of advised clients vs. those self-directed.

We have split out the two advised segments, as we found interesting differences in the investing behavior of advisers who trade directly with us as opposed to those who trade through platforms. For the advised and self-directed segments, further analysis has been undertaken by:

- > Gender
- > Australian State of residence
- > Client type primary or additional account holder
- > Age as follows:

Generation	Year of birth
Generation Z	1997 - 2012
Millennials	1981 - 1996
Generation X	1965 - 1980
Boomers	1955 - 1964

Trading accounts have been classified as follows:

- Established: An account opened before 1 November 2019
- > Pre-COVID: An account opened between1 November 2019 and 28 February 2020
- Lockdown: An account opened between 1 March 2020 and 31 October 2020
- Post-lockdown: An account opened between
 1 November 2020 and 31 March 2021

AUSIEX undertook the analysis in April and May 2021.



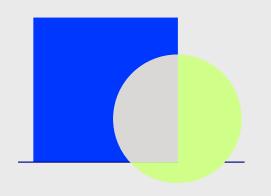


Key findings

Australia's trading landscape transformed during COVID. We saw many more investors enter the market, reaching all-time highs, and the demographics shift as the number of younger investors and female investors rose.

We also observed a clear difference in behaviours across market segments. While self-directed investors were more likely to take a lot more opportunities and were more active in trading with a 60:40 ratio of buys to sells, we saw advisers sticking to their strategies and staying the course, rebalancing existing portfolios where necessary and taking a more cautious approach. This is reflected in their trades, with more advisers showing a preference for large cap stocks and self-directed clients looking further afield for value.

We also saw interest in ETF investing rise, with a particular take-up of thematic and index ETFs, as investors – both advised and self-directed – looked for broad-based, rather than stock specific, exposure. The benefit being that they can participate in a broad-based recovery type rally rather than isolated sections of the market.



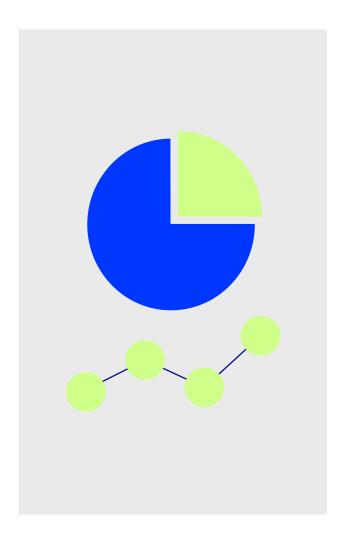
Findings by segment

Advised

- > Women tip the scales as new investors, females now outnumber men. The proportion of new advised female clients has risen to 52% as of March 2021. The percentage of women that are acting as the primary account holder has also increased to 39% from 33%. The fastest growing age groups for new female clients was in the under 20s and 40-50 age brackets. In terms of new clients, since 2019 female clients have outnumbered male clients each every month and, while sitting on 49% of the overall book, the growth in female clients means they are on track to outnumber the males in late 2021/ early 2022.
- > Lockdown saw a shift towards growth in younger clients, including Generation X, which was up 7% to almost one in four total advised clients (24.7%). Millennials doubled from 3.8% to 8.4%, and Generation Z investors more than tripled to 1.7%.
- Increased use of ETFs: ETF trading increased from March 2020 compared to pre-November 2019. Growth in trading of ETFs was mostly driven by holders of new accounts opened during the lockdown period, who were aiming to take advantage of market movements. ETFs have been favoured by advisers for ease of implementation and price.

Advised (platforms)

- ETF take-up by advisers trading through platforms more than doubled during COVID-19, as accounts went from an average of one in five trading an ETF pre-COVID, to over half (one in two) during COVID-19, and two in three by the start of 2021.
- On average, almost half of all accounts traded ETFs during lockdown and beyond, compared to around two fifths of advised (direct) clients and a sixth of self-directed clients (40% and 17%).
- Advisers trading through platforms increased their investments in ESG during COVID, continuing the momentum seen in recent years. Around two in every three dollars traded in this segment were done so equally in ETHI (BetaShares Global Sustainability Leaders) and FAIR (BetaShares Australian Sustainability). In bronze place (around one in six dollars traded) was GBND (BetaShares Sustainability Leaders Diversified Bond ETF).
- > Platforms focused their investing in large caps, with the proportion of accounts trading ASX 200 stocks only increasing during the lockdown period.



Self-directed

- > Young self-directed investors are embracing the market. On 1 November 2019, only 1% of self-directed clients were under 25 this increased by 250% by March 2021, with one in six new clients onboarded around the US Election and Q1 2021 being under 25.
- During the lockdown period, there was another significant shift towards younger investors with a 5% increase in new millennial clients and a slight increase in Generation Z.
- First movers on inverse ETFs: Advisers trading direct or through platforms did not pile into inverse ETFs until at least March 2020. Self-directed clients were ahead by months with their interest in bear market strategies - buying in early to maximise the returns when the market collapsed.
- Driving buy now, pay later (BNPL): Self-directed investors may have contributed to the surge in share prices of Afterpay and Zip. These investors jumped on the sector compared with advisers who resisted BNPL on behalf of their clients. Advisers went from 1.7% of accounts trading BNPL to 3% of accounts trading BNPL during 2020 while self-directed investors went from 6% to 26%.
- > Looking outside to find value: Pre-COVID, 60% of self-directed accounts traded outside of the ASX 200, but during the lockdown period, this rose to 76%, indicating an increasing appetite for seeking value outside of large caps.
- > Focus on travel: Self-directed investors were two to three times more likely to trade travel stocks during the lockdown period than advisers trading either direct or through a platform on behalf of their clients.
- > Overall, self-directed investors **boosted trade in ESG ETFs** during COVID-19,
 catching up with the advised (platforms)
 investor trend. The stocks included Vanguard
 Ethically Conscious International Shares ETF
 (ASX:VESG), BetaShares Global Sustainability
 Leaders (ASX:ETHI), BetaShares Australian
 Sustainability Leaders ETF (ASX:FAIR), VanEck
 Vectors MSCI Australian Sustainability Equity
 ETF (ASX:GRNV) and Russell Australian
 Responsibility Investment ETF (ASX:RARI).

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Australia's trading transformation



Section 1: Advised (Direct) segment

During lockdown in March 2020, AUSIEX experienced a record month for new accounts opened by advisers directly, but momentum did not carry through – overall 2020 had less accounts opened compared to 2019.

Trade volumes also increased 25% in March 2020 before dropping back down to 'normal' levels. Essentially what we saw was a big readjustment in March and April 2020, but since then the advisers trading directly with AUSIEX have been tweaking their positions on some bargain buys.

Andrew Stewart, Head of Product & Distribution, AUSIEX, says the increase in interest from new clients came as advisers were occupied with rebalancing client portfolios in March and July to reposition for the changing market environment.

We didn't see the trading frenzy like we did in the self-directed segment.

"When you think about the way planners normally operate, they don't trade on market volatility alone. One of the key elements of going to a financial planner is that they are focused on executing on a strategy. That's why we didn't see the trading frenzy like we did in the self-directed segment."

"At the same time, advisers were focused on managing client relationships during the lockdown period – and played an important role in the investor community by helping to address the concerns of clients who were understandably worried about the impact of the crisis on their investments. Meanwhile, work from home arrangements meant that advisers needed new mechanisms to engage and interact with their clients, including the adoption of new technologies," Stewart says.

In addition, Stewart says the advised market is also experiencing significant structural change on the back of changing legislation, changing educational requirements and the move from large institutionally owned dealer groups to smaller self-licensed enterprises.

According to the Financial Planning Association, the number of licensed financial advisers in Australia has fallen by nearly 20% from 26,000 in 2017-18 to 21,200 as of March 2021. That being said, AUSIEX has seen an increase of AFSLs onboarded during this time, seeing a 43% YoY increase from 1 November 2020 to now.

Interestingly, one in three trading accounts opened during 2020 did not place a trade, suggesting that there was still a degree of tentativeness towards investing in such a volatile market.

Women tip the scales - female investors outnumbering men

The proportion of female advised clients has risen beyond half for the first time since AUSIEX's trading records began in 1996 to 52.4% as of March 2021, from 47.3% in November 2019.

"The ASX Australian Investor Study 2020 shows that about 45% of new investors in on-exchange products in the past year were female (up from 31% five to ten years ago), and it is pleasing to see that females are also increasingly driving the advised relationship," says Stewart.

The biggest gains occurred in the months leading up to the pandemic. The ratio of female to male clients of advisers slipped back slightly during the lockdown period as more men entered the market, potentially reflecting a more cautious approach by women to trading in volatile times.

Stewart noted: "Research³ has shown that women get better trading outcomes than men, but trade

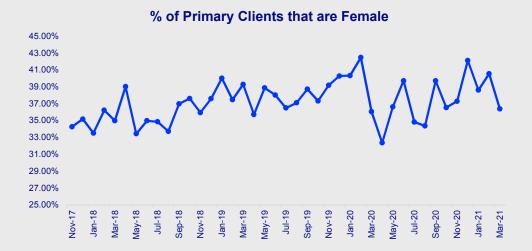
less often, so the data may also be reflecting that restrained approach – with women less likely to want to start trading during such a volatile period."

The proportion of accounts held by women began to pick up again after the market stabilised and the economic outlook began to improve later in the year.

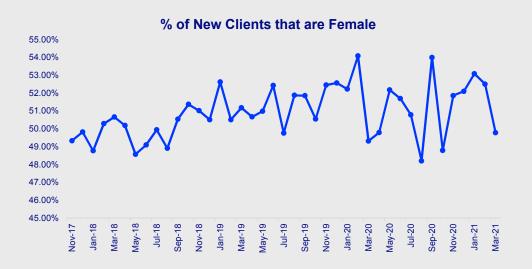
Similarly, the proportion of primary account holders that are female rose from around 33% in November 2019 to 41% during the months leading up to the pandemic, falling back to 36% during lockdown and then back up to 39.2% around the US Election in November 2020.

Up until 2018, the majority of new client accounts in the advised (direct) segment were opened by men. From 2019 onwards, females became the majority of new clients.





Graph 2



³ Madison Darbyshire, "Women trade less often than men, with better results", Financial Times, 3 April 2020

As of 31 March 2021, female clients also outnumbered male clients in the under 20s as well as the 40 - 50 age brackets.

The growth in female advised (direct) investors outweighed the growth in female self-directed investors. The percentage of female self-directed traders grew from 31.2% in November 2019 to 37% in the pre-COVID period to March 2020. Numbers fell slightly in the following months but stood at 32.8 % by March 2021.

That new female traders are likely to seek to do so under the guidance of an adviser could be viewed as consistent with the available research that shows women tend to be more risk-averse than men when it comes to trading.⁴

An interesting example is ETFs, which female advised clients are more likely to trade compared to males, with 23% of female advised clients trading ETFs over this period compared to 21% of accounts with male advised clients. This is a clear difference from the self-directed investors, where marginally more male investors traded ETFs than females.

The rise in female advised clients, and the trading behaviours, provides an opportunity for advisers to review and potentially tailor their business models, especially when it comes to investment decisions, to this growing demographic.

Nextgen investors emerge in lockdown with Gen Z at the forefront

Between November 2019 to March 2021, a key trend was the emergence of younger traders.

The total advised (direct) client base in November 2019 was 78.6% Boomers, 17.1% Generation X, 3.8% Millennials, and a mere 0.5% belonging to Generation Z.

There was another big shift away from growth in Boomer investors during the lockdown period.

The pre-COVID period saw a shift towards growth in younger cohorts of advised (direct) account holders. Generation X was up 7% to almost one in four of total advised clients (24.7%).

Similarly, Millennials more than doubled from 3.8% to 8.4% and Generation Z investors more than tripled to 1.7% during the same period.

There was another big shift away from growth in Boomer investors during the lockdown period, but

this time the main drivers of that rise were Millennials (up 3.8% to 12.2%) and Generation Z (up to 2.5%).

While the post-lockdown period and its aftermath saw a significant increase in Boomers – yes, they came back, up almost 6% on pre-COVID levels – the period also saw a rise in Generation Z investors to 3%.

This indicates that Generation Z investors sought financial advice rather than choosing to opt for a more self-directed experience.

Generation Z was the biggest trading group during the pre-COVID period, with 30.43% trading. However, by the lockdown period, this had increased dramatically, with 84% of new accounts held by Generation Z placing trades during March-November 2020.

Most of the non-Boomer increases came in March and April 2020 with Millennials peaking in April, with a slight increase again in November, which was more pronounced for Generation X.

As ever more nimble, technology-led online trading players enter the market to take advantage of the growth in the younger trading demographics, advisers may need to adapt to support the conversation via technology rather than rely on traditional methods.

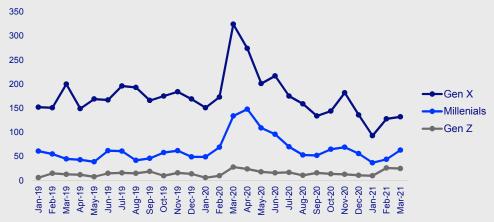
Accounts held by demographic age group

Period	Boomers	Generation X	Millennials	Generation Z
Established Account	78.6%	17.1%	3.8%	0.5%
Pre-COVID New Account	65.1%	24.7%	8.4%	1.7%
Lockdown New Account	58.5%	26.9%	12.2%	2.5%
Post Lockdown Account	64.8%	23.0%	9.3%	3.0%

⁴ BlackRock Investor Pulse survey

Age Group Monthly Trends (Excl Boomers)

Graph 3



Take up of ETFs increases

ETF trading increased from March 2020 as advisers looked to rapidly reposition client portfolios, and gain index and thematic exposures. Advised clients continued to adopt ETFs, as a low cost, tax effective investment vehicle that provide an ease of implementation and allow clients to round out asset allocation and gain access to both local and global markets in a simple way.

Growth in trading of ETFs was mostly driven by holders of new accounts opened during the lockdown period as advisers sought efficient and timely ways to establish and balance new client portfolios in a rapidly evolving market. ETFs tend to provide more control over an investment income and create underlying diversification, both of which are attractive in volatile conditions.

Around 28% of new accounts opened during the

lockdown period – almost one in three – invested in ETFs during March to November. This fell slightly to 22.7% in the post-lockdown period.

Stewart says clients used ETFs to achieve diversification and invest thematically.

"ETF providers are creating products that are topical for example, when we were all working from home; the instruments that gave exposure to technology and cyber security got good traction in the middle of COVID-19."

Two examples of this are ASIA (BetaShares Asian Technology Tigers ETF) which has increased in popularity, steadily going from a Top 30 ETF to be the fifth most traded in March 2021, and HACK (BetaShares Global CyberSecurity ETF) which has risen around 10 places during this period.

Graph 4



ETFs' simplicity appeals to younger investors

Of Generation Z account holders who came into the market during the lockdown period, 43% of them traded ETFs – a higher percentage than any group – perhaps reflecting that clients in this age group are more comfortable with these types of investment products.

Overall, the increase in ETF use is coming from a low base. Still, less than one in five advised (direct) accounts have ever traded an ETF.

Stewart says the increased use of ETFs also relates to structural changes in the advice industry, as advisers move from big national dealer groups to set up their own businesses: "As part of that change, advisers are now re-evaluating their

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value proposition. We expect the growth in ETF take up to continue as advisers look to provide low cost, more tax-effective ways of investing to their clients, and also look to access global markets and thematic investing through ETFs."

We expect the growth in ETF take up to continue as advisers look to provide low cost, more tax-effective ways of investing to their clients.

Top ETFs for segment November 2019: Vanguard holding eight out of the top 10 spots in ETFs traded and the top three spots.

			•
Description	Issuer	Security Code	Mar-20
Vanguard Australian Shares Index	Vanguard	VAS	1
Vanguard Australian Fixed Interest Index	Vanguard	VAF	2
Vanguard Australian Property Securities Index ETF	Vanguard	VAP	3
BetaShares Active Australian Hybrids Fund (managed fund)	BetaShares	HBRD	4
Vanguard MSCI Index International Series	Vanguard	VGS	5
Vanguard All-World EX US Shares Index	Vanguard	VEU	6
Vanguard Australian Shares High Yield ETF	Vanguard	VHY	7
Vanguard International Fixed Interest Index (Hedged) ETF	Vanguard	VIF	8
Vanguard US Total Market Shares Index	Vanguard	VTS	9
VanEck Vectors MSCI World ex Australia Quality ETF	Van Eck Global	QUAL	10

Top ETFs for segment March 2020: Six new entrants into the top 10, including a rise in inverse ETFs.

Description	Issuer	Security Code	Mar-20	Trend
iShares Core S&P 500	BlackRock	IVV	1	Up
Australian Equities Strong Bear Hedge Fund	BetaShares	BBOZ	2	Up
Vanguard US Total Market Shares Index	Vanguard	VTS	3	Up
Vanguard Australian Shares Index	Vanguard	VAS	4	Down
SPDR 200 Fund	State Street	STW	5	Up
SPDR 50 Fund	State Street	SFY	6	Up
Vanguard Australian Property Securities Index ETF	Vanguard	VAP	7	Down
Vanguard Australian Fixed Interest Index	Vanguard	VAF	8	Down
Australian Equities Bear Hedge Fund	BetaShares	BEAR	9	Up
SPDR Dow Jones Global Real Estate Fund	State Street	DJRE	10	Up

Top ETFs for segment July 2020: A relatively stable picture, with only two new entrants.

Description	Issuer	Security Code	Jul-20	Trend
Vanguard Australian Shares Index	Vanguard	VAS	1	Up
VanEck Vectors Australian Equal Weight ETF	Van Eck Global	MVW	2	Up
Vanguard Australian Fixed Interest Index	Vanguard	VAF	3	Up
BetaShares Active Australian Hybrids Fund (managed fund)	BetaShares	HBRD	4	Up
iShares Global 100 ETF	BlackRock	100	5	Up
SPDR 200 Fund	State Street	STW	6	Down
Vanguard Australian Property Securities Index ETF	Vanguard	VAP	7	Same
VanEck Vectors MSCI World ex Australia Quality ETF	Van Eck Global	QUAL	8	Up
Vanguard MSCI Index International Series	Vanguard	VGS	9	Up
iShares Core S&P 500	BlackRock	IVV	10	Up

Top ETFs for segment March 2021: Farewell to the inverse ETFs and a return to form closer to November 2019.

Description	Issuer	Security Code	Mar-21	Trend
Vanguard Australian Fixed Interest Index	Vanguard	VAF	1	Up
iShares UBS Composite Bond ETF	BlackRock	IAF	2	Up
Vanguard MSCI Index International Series	Vanguard	VGS	3	Up
Vanguard Australian Shares Index	Vanguard	VAS	4	Down
iShares Global 100 ETF	BlackRock	100	5	Same
BetaShares Active Australian Hybrids Fund (managed fund)	BetaShares	HBRD	6	Down
VanEck Vectors MSCI World ex Australia Quality ETF	Van Eck Global	QUAL	7	Up
Vanguard Australian Property Securities Index ETF	Vanguard	VAP	8	Down
VanEck Vectors Australian Equal Weight ETF	Van Eck Global	MVW	9	Down
BetaShares Australian High Interest Cash ETF	BetaShares	AAA	10	Up

New entries into the Top 10 ETFs in the month

Biggest positive movers

For the advised segment, the biggest positive movers during this period, with most positive positional change between November 2019 and March 2021, were:

- > BetaShares Gold Bullion ETF (QAU): 38th to 18th place (gained 20 places)
- BlackRock IShares UBS Composite Bond ETF (IAF): 19th to 2nd place (gained 17 places)
- > BlackRock IShares Global Healthcare ETF (IXJ): 30th to 16th place (gained 14 places)
- > BetaShares Global Sustainability Leaders ETF (ETHI): 33rd to 20th place (gained 13 places)

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> BlackRock IShares Global 100 ETF (IOO): 15th to 5th (gained 10 places)

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AUSTRALIA'S TRADING TRANSFORMATION



Section 2: Advised (Platforms) segment

Adviser behavior remained fairly consistent across this period, regardless of whether they were trading directly via AUSIEX or through a platform.

Although we saw an uptick in activity due to readjustment of portfolios, such as money being taken out of cash and deployed into the market when investors saw opportunities to invest in quality companies, it was behavior guided by strategy and focused more on long-term planning and what we would expect of this segment.

For advisers placing trades through platforms, account opening was relatively steady throughout the pandemic, without the volatility experienced by the advised (direct) and self-directed segments. Throughout the eightmonth lockdown period – March 2020 to November 2020 – accounts grew by 7%.

Investors doubling up on passive, index investing

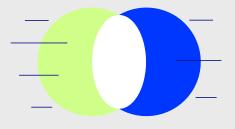
In line with the trend of ETF use rising broadly, ETF take-up by advisers trading through platforms on behalf of their clients increased significantly during the March 2020 to November 2020 lockdown period, and newer accounts traded even more of them.

While advisers trading directly with us and advisers trading through platforms are similarly adopting ETFs, it is interesting to see that all trades are not alike.

This put adviser trading through platforms ahead of the advised (direct) and self-directed segments in terms of the take up of ETFs. On average, almost half of all accounts – that is, new and existing accounts – traded ETFs during lockdown and beyond.

The ETF trend may have been somewhat expected, as their rise in popularity continues its upwards trajectory. There is, however, some difference in what advisers are trading.

Mat Tilley, AUSIEX's Head of Markets and Client Solutions, says: "While advisers trading directly with us and advisers trading through platforms are similarly adopting ETFs, it is interesting to see that all trades are not alike. We see advisers through platforms trading a diverse range compared to their non-platform advised colleagues."



Graph 4

% of Advised Accounts Trading ETFs



Top ETFs for segment November 2019: Vanguard held six out of the top 10 spots and fixed interest in the lead

Description	Issuer	Security Code	Nov-19
Vanguard Australian Fixed Interest Index	Vanguard	VAF	1
Vanguard Australian Shares Index	Vanguard	VAS	2
BetaShares Australian High Interest Cash ETF	BetaShares	AAA	3
Vanguard US Total Market Shares Index	Vanguard	VTS	4
iShares Core S&P 500	BlackRock	IVV	5
Vanguard Australian Property Securities Index ETF	Vanguard	VAP	6
VanEck Vectors Australian Equal Weight ETF	Van Eck Global	MVW	7
Vanguard MSCI Index International Series	Vanguard	VGS	8
Vanguard All-World EX US Shares Index	Vanguard	VEU	9
iShares MSCI Australia 200 ETF	BlackRock	IOZ	10

Top ETFs for segment March 2020: Global and Bear join the race

Description	Issuer	Security Code	Mar-20	Trend
Vanguard Australian Shares Index	Vanguard	VAS	1	Down
iShares Core S&P 500	BlackRock	IVV	2	Up
iShares MSCI Australia 200 ETF	BlackRock	IOZ	3	Up
BetaShares Australian High Interest Cash ETF	BetaShares	AAA	4	Down
SPDR 200 Fund	State Street	STW	5	Up
iShares Global 100 ETF	BlackRock	100	6	Up
Australian Equities Bear Hedge Fund	BetaShares	BEAR	7	Up
Vanguard All-World EX US Shares Index	Vanguard	VEU	8	Up
Vanguard US Total Market Shares Index	Vanguard	VTS	9	Down
Vanguard MSCI Index International Series	Vanguard	VGS	10	Up

Top ETFs for segment July 2020: Global falls out, hybrid makes a comeback

Top LTT's for segment July 2020. Global fails out, hybrid makes a comeback					
Issuer	Security Code	Jul-20	Trend		
Vanguard	VAS	1	Same		
Vanguard	VGS	2	Up		
BlackRock	IOZ	3	Same		
BetaShares	AAA	4	Same		
BlackRock	IVV	5	Down		
BetaShares	HBRD	6	Up		
Vanguard	VAP	7	Up		
Vanguard	VTS	8	Up		
State Street	STW	9	Down		
Vanguard	VAF	10	Up		
	Vanguard Vanguard BlackRock BetaShares BlackRock BetaShares Vanguard Vanguard State Street	Issuer Security Code Vanguard VAS Vanguard VGS BlackRock IOZ BetaShares AAA BlackRock IVV BetaShares HBRD Vanguard VAP Vanguard VTS State Street STW	Issuer Security Code Jul-20 Vanguard VAS 1 Vanguard VGS 2 BlackRock IOZ 3 BetaShares AAA 4 BlackRock IVV 5 BetaShares HBRD 6 Vanguard VAP 7 Vanguard VTS 8 State Street STW 9		

New entries into the Top 10 ETFs in the month

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AUSTRALIA'S TRADING TRANSFORMATION

Top ETFs for segment March 2021: Fixed interest back on top

Description	Issuer	Security Code	Mar-21	Trend
Vanguard Australian Fixed Interest Index	Vanguard	VAF	1	Up
Vanguard Australian Shares Index	Vanguard	VAS	2	Down
BetaShares Active Australian Hybrids Fund (managed fund)	BetaShares	HBRD	3	Up
BetaShares NASDAQ 100	BetaShares	NDQ	4	Up
Vanguard MSCI Index International Series (Hedged)	Vanguard	VGAD	5	Up
SPDR 200 Fund	State Street	STW	6	Up
BetaShares Asia Technology Tigers ETF	BetaShares	ASIA	7	Up
VanEck Vectors MSCI World ex Australia Quality ETF	Van Eck Global	QUAL	8	Up
iShares UBS Composite Bond ETF	BlackRock	IAF	9	Up
BetaShares Australian High Interest Cash ETF	BetaShares	AAA	10	Down

New entries into the Top 10 ETFs in the month

Biggest positive movers

The biggest winners, with most positional change between Nov 2019 and March 2021, were:

- > BetaShares Asia Technology ETF (ASIA): 38th to 7th place (gained 31 places)
- > BetaShares NASDAQ 100 ETF (NDQ): 19th to 4th (gained 15 places)
- Vanguard International Series (VGAD): 18th to 5th (gained 13 places)
- > BetaShares Global Cybersecurity ETF (HACK): 34th to 21st (gained 13 places)
- > BetaShares Gold Bullion Hedged ETF (QAU): 36th to 23rd (gained 13 places)

How ESG is changing trading

Advisers trading through platforms on behalf of their clients were first movers in trading ESG stocks.

Less than 0.8% of established accounts had invested in ESG stocks as of November 2019. While coming from a low base, this almost quadrupled to 2.9% during the pre-COVID period from November 2019 to March 2020, as attention towards ethical and values-based investing continued to rise in all areas of the market.

During the lockdown period, from March 2020 to November 2020, there was a healthy uptick in ESG interest. There was a spike in trading ESG stocks towards the end of 2020, and the general trend over the last three years is up.

Mathew Tilley, Head of Markets and Client Solutions at AUSIEX, noted that 2020 was a year in which companies were increasingly making dramatic changes in response to the rising concerns about the environment. A notable highlight was Fortescue Metals, the fourth largest iron ore producer in the world. In November 2020, it unveiled a plan

to build more than 235 gigawatts or renewable energy capacity to become a green energy and hydrogen supplier that would rival the country's biggest oil suppliers in terms of energy produced.

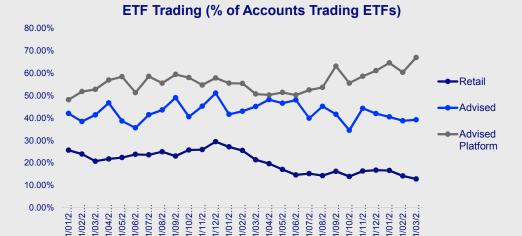
Recent research shows the focus of investors globally on climate change has accelerated over the past year, with 86% of institutional and wholesale investors expecting climate change to be at the centre of their investment policy, or a significant factor in it, in the next two years. That compares to 73% that say climate change is already a significant factor, up dramatically from 33% two years ago.⁵

"ESG is increasingly at the forefront of the minds of investors as they make their investment decisions," Tilley says.

"As the pressure to act increasingly comes from investors who see ESG issues as real investment risks, we will witness many more companies taking decisive and strong action and making environmental, social and governance factors central to their business plans."

⁵ Robeco 2021 Global Climate Survey

Graph 5



Graph 6



The rise of the small – investors now searching for value outside the ASX 200

In the pre-COVID period from November 2019 to March 2020, only 15% of accounts traded exclusively in ASX 200 stocks, indicating significant appetite for seeking value outside of the index.

Amid global uncertainty... advisers trading through platforms were enacting a flight to quality

During lockdown, from March 2020 to November 2020, the focus on ASX 200 stocks increased. Almost one in three established accounts traded only ASX 200 stocks, while of new accounts, between 13% and 16% traded ASX 200 only.

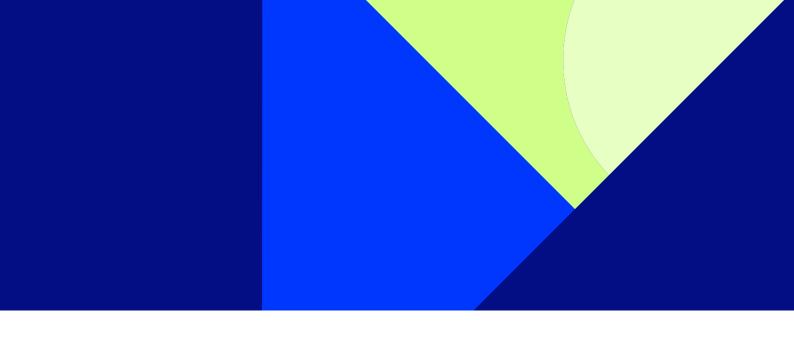
"Amid global uncertainty, and indications that Australia may be able to weather the pandemic relatively well, advisers trading through platforms were enacting a flight to quality, with less focus on growth companies and more of a tilt towards the larger caps," says Tilley

"Despite this, the small ords actually outperformed the ASX 200 by quite a wide margin. You could argue that with low interest rates and a hot market, they are positioned for growth or to rebound more strongly than a diversified, large, no-growth organisation. Whilst the broad index did rally, there was a run on small companies, as you can see during that lockdown period."

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AUSTRALIA'S TRADING TRANSFORMATION



Section 3: Self-directed segment

In recent years, there has been a rise in self-directed investors and growing interest in the market from new investors, which has seen exciting offerings emerge, nimbler technology-led players entering the market, and a price war amongst brokers play out. This helped set the scene for what was to come in 2020.

A record number of new self-directed trading accounts were opened by clients on institutional trading platforms powered by AUSIEX; the average monthly account openings during March – May 2020 were 450% higher than the preceding 27 months. This momentum continued into 2021, and in January and February, 8,000 new accounts

were opened, which might reflect the 'battle for Wall Street' playing out in the market at the time.

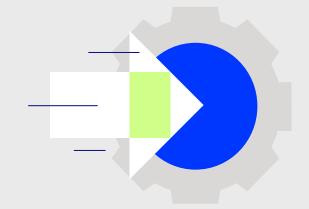
AUSIEX's self-directed trading book (active accounts placing one or more trades in the last 12 months) grew by 54.5% from November 2019 to March 2021.

More time at home meant more time for learning, researching - and trading

Mathew Tilley, Head of Markets and Client Solutions at AUSIEX, says the pandemic provided people with more time to trade and more awareness around the markets. constant mainstream news about the significant fall in the market and the rapid rebound, which took the awareness of what was happening to the masses. In an environment where customers have been critical of deposit rates coming down, people were searching for an alternative."

The volatility offered many opportunities for investors who were willing to step into the market.

"Many people who were confined to their homes during lockdown had more time to embark on an investment journey. This segment used the lockdown period as an opportunity to better understand and participate in the stock market. There was



"The volatility offered many opportunities for investors who were willing to step into the market, and they were really spoilt for choice for help to do it, as we saw more organisations targeting the retail sector, including offerings that tried 'gamifiying' the investment world and those providers that aimed to reduce the barriers to entry with micro-investing offerings."

Tilley also believes the publicity around the GameStop saga in the US has helped boost awareness and interest in trading among younger generations.

"The expansion and acceleration of technology have been both a positive and a negative. Technology has helped to connect investors with education about trading and investing such as social stock forums. These forums do provide education, but also create fear of missing out. There is this feeling of wanting to be part of the in-group. Also, it allows people who are faced with isolation a bit of connectivity.

"Social media around stock market investing created a lot of hype on some stocks. The hype around certain stocks, such as GameStop in the US, has drawn attention to stock market trading, and this has resulted in the entrance of a new, younger, more social-savvy cohort of traders," he says.

Tilley says advisers and institutions providing trading to self-directed investors are aware of, and acting on, the growing need to educate the new cohort of these traders who may have a large amount of enthusiasm but lack the time in market.

"We have seen an increase in support from institutions and advisers to help self-directed clients, as often a portion of these investors come to the market and don't necessarily take a systemised approach. So, for example, we've had a large number of fund managers speak to our retail clients on webinars. At AUSIEX, we use various methods to educate new traders, from face-to-face, to over the phone. We recorded a 300% rise in the take up of clients signing up to webinars post-COVID."

Surge in new, younger self-directed traders

The pre-COVID period from November 2019 to February 2020 gave a hint of what was to come next in investing – a boom in young self-directed investors. The combined Boomer and Generation X investors fell from 83% to 56% as a proportion of total clients, due to the entrance of younger investors. Simultaneously, there was a 10-fold increase in the number of new Generation Z investors to 10%.

"The data shows younger traders were beginning to become increasingly active in the market even before the pandemic," Tilley says. "Even the youngest Millennials have reached adulthood. While this generation may have been hampered by some unfavourable economic circumstances, such as diminishing household affordability, this demographic has increased disposable income and

a strong values-based approach to investments. Meanwhile, trading is becoming easier and more affordable than ever, increasing the ability for younger generations to participate directly in the market."

During the lockdown period, there was another significant shift towards new younger investors with a 5% increase in new Millennial clients and a slight increase in the Generation Z segment (2%).

Boomers were stable around 19% following the post-lockdown period and its aftermath, while Millennials stayed around the 37% range.

There was also a big swing from Generation X to Generation Z, of around 4%. A total of one in six new self-directed investors since November 2020 have been Generation Z. A year before, and they were one in 100.

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New investors by generation

Period	Boomers	Generation X	Millennials	Generation Z
Established Acct Pop	47.77%	35.92%	15.31%	1.00%
Pre-COVID New Acct	29.76%	26.61%	32.79%	10.84%
Lockdown New Acct	18.93%	30.63%	37.82%	12.62%
Post Lockdown Acct	18.80%	26.92%	37.30%	16.99%
Total Population as of 31 March 2021	44.30%	35.04%	18.07%	2.59%
Movement Vs to 1 Nov 2019	-3.47%	-0.88%	2.76%	1.59%

<u>ausiex.com.au</u> australia's trading transformation

COVID changed trading – created inverse ETFs

The interest in and awareness of ETFs continued to grow across the board. established self-directed accounts (opened before November 2019) had barely traded ETFs, with less than 7% active in this area. However, new account holders demonstrated a keen interest in ETFs. Among new accounts opened during the pre-COVID period, trading of ETFs was at 17%.

Post March 2020, all account groupings increased ETF trading with established accounts up to 16.5 % and those opened pre-COVID increasing further to 26.9%

Self-directed investors were also ahead of the curve in terms of buying into inverse ETFs ahead of the market downturn in March 2020.

By November 2019, two inverse ETFs – BetaShares' Equities Strong Bear Hedge Fund (BBOZ) and US Equities Strong Bear Hedged Fund (BBUS) - were among the Top 10 ETFs bought by self-directed investors. The reasons behind this vary, but it can be argued that people were trying to take advantage of an arguably fully priced market following a 10-plus year bull run. Advisers trading on behalf of their clients did not pile into inverse ETFs until March 2020.

Top ETFs for segment November 2019: Early movement into inverse

Description	Issuer	Security Code	Nov-19
Vanguard Australian Shares Index	Vanguard	VAS	1
Australian Equities Strong Bear Hedge Fund	BetaShares	BBOZ	2
SPDR 200 Fund	State Street	STW	3
U.S. Equities Strong Bear Hedge Fund - Currency Hedged	BetaShares	BBUS	4
Vanguard US Total Market Shares Index	Vanguard	VTS	5
BetaShares NASDAQ 100	BetaShares	NDQ	6
Vanguard MSCI Index International Series	Vanguard	VGS	7
iShares Core S&P 500	BlackRock	IVV	8
Vanguard Australian Shares High Yield ETF	Vanguard	VHY	9
Vanguard Australian Property Securities Index ETF	Vanguard	VAP	10

Top ETFs for segment March 2020: GEAR joins Bear

Description	Issuer	Security Code	Mar-20	Trend
Australian Equities Strong Bear Hedge Fund	BetaShares	BBOZ	1	Up
Vanguard Australian Shares Index	Vanguard	VAS	2	Down
U.S. Equities Strong Bear Hedge Fund - Currency Hedged	BetaShares	BBUS	3	Up
iShares Core S&P 500	BlackRock	IVV	4	Up
Australian Equities Bear Hedge Fund	BetaShares	BEAR	5	Up
SPDR 200 Fund	State Street	STW	6	Down
BetaShares NASDAQ 100	BetaShares	NDQ	7	Down
Geared Australian Equity Fund (hedge fund)	BetaShares	GEAR	8	Up
iShares MSCI Australia 200 ETF	BlackRock	IOZ	9	Up
Vanguard MSCI Index International Series	Vanguard	VGS	10	Down

Top ETFs for segment July 2020: Crude oil joins the fray

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Top 2110 tot degineration, 2020; order on joine the may				
Description	Issuer	Security Code	Jul-20	Trend
Australian Equities Strong Bear Hedge Fund	BetaShares	BBOZ	1	Same
U.S. Equities Strong Bear Hedge Fund - Currency Hedged	BetaShares	BBUS	2	Up
Geared Australian Equity Fund (hedge fund)	BetaShares	GEAR	3	Up
Vanguard Australian Shares Index	Vanguard	VAS	4	Down
BetaShares NASDAQ 100	BetaShares	NDQ	5	Up
SPDR 200 Fund	State Street	STW	6	Same
BetaShares Crude Oil Index ETF- Currency Hedged (Synthetic)	BetaShares	000	7	Up
iShares Core S&P 500	BlackRock	IVV	8	Down
iShares MSCI Australia 200 ETF	BlackRock	IOZ	9	Same
Vanguard US Total Market Shares Index	Vanguard	VTS	10	Up

Top ETFs for segment March 2021: Half of the Top 10 in November 2019 had fallen down the charts

Description	Issuer	Security Code	Mar-21	Trend
U.S. Equities Strong Bear Hedge Fund - Currency Hedged	BetaShares	BBUS	1	Up
Vanguard Australian Shares Index	Vanguard	VAS	2	Up
Australian Equities Strong Bear Hedge Fund	BetaShares	BBOZ	3	Down
BetaShares Asia Technology Tigers ETF	BetaShares	ASIA	4	Up
Vanguard Australian Fixed Interest Index	Vanguard	VAF	5	Up
SPDR 200 Fund	State Street	STW	6	Same
BetaShares NASDAQ 100	BetaShares	NDQ	7	Down
BetaShares Gold Bullion ETF - Currency Hedged	BetaShares	QAU	8	Up
Geared Australian Equity Fund (hedge fund)	BetaShares	GEAR	9	Down
BetaShares Crude Oil Index ETF- Currency Hedged (Synthetic)	BetaShares	000	10	Down

New entries into the Top 10 ETFs in the month

Biggest positive movers

The biggest winners, with most positional change between November 2019 and March 2021, were:

- > BetaShares Crude Oil ETF (OOO): 37th to 10th Place (Gained 27 places)
- > BetaShares Australia 200 ETF (A200): 35th to 11th (Gained 24 places)
- > State Street SPDR 50 Fund (SFY): 40th to 18th (Gained 22 Places)
- Vanguard's International Fixed Income (VIF): 38th to 20th (Gained 18 Places)
- > BetaShares Gold Bullion Hedged ETF (QAU): 25th to 8th (Gained 17 Places)

Self-directed investors looking for more

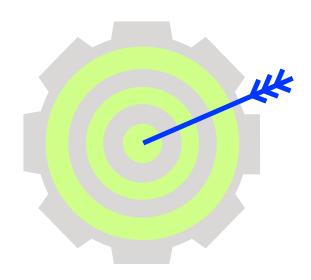
Compared with the advisers trading through platforms, established self-directed traders did not initially embrace ESG stocks, with only 0.3% of these accounts invested in the sector in November 2019.

This rose slightly to 0.82% during the pre-COVID period, around the same level as the advisers trading directly with AUSIEX, increasing from 2% to 3.5% during COVID.

Both genders embraced ESG stocks, with female traders trading a little more in the sector during lockdown. The gap was widest amongst Generation Z and Millennial traders.

"Younger generations are more likely to invest according to their values. The cohort of new younger traders might be driving this move toward investing less in stocks that are damaging to the environment," says Tilley.

Younger generations are more likely to invest according to their values.



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Australia's trading transformation

Increasing appetite for growth stocks, led by next gen traders

Pre-COVID, almost 40% of accounts traded the ASX 200 exclusively, but during lockdown, this fell to 24%, indicating an increasing appetite for seeking value outside the big players.

Newer traders were more likely to invest in growth stocks. Of accounts opened post 1 November 2019, only one in five traded exclusively in ASX 200 stocks, compared to one in four for established accounts. Accounts opened around the US Election in November 2020 and afterwards were least likely to trade ASX 200 stocks exclusively, with only 19% doing so. This is the reverse of the flight to quality we saw from advisers trading through platforms.

"Self-directed investors have a far greater risk appetite for smaller companies than advised

customers and that's what we saw through the pandemic, there was definitely a bias to stocks of companies outside the ASX200, which are the companies that are positioned for growth, says Tilley.

Female traders were less likely to take risks with stocks outside the ASX 200 compared with male traders, which echoes the trading behavior we have previously seen from this demographic.

During lockdown, Boomers increased their trading in ASX 200 stocks by almost 30% while other demographics looked elsewhere for value, particularly Millennials, with only 17% of the segment trading these stocks exclusively.

New investors rush to buy now, pay later

Those following the journeys of buy now, pay later (BNPL) companies like Afterpay and Zip would not be surprised that self-directed investors embraced the sector, much more so than advisers. This aligns with the broader trend of self-directed investors being more likely to invest in growth stocks.

Late 2019 to March 2020 saw the share price of Afterpay and Zip rise by 300%, which had retail traders watching.

Pre-lockdown, trading in BNPL stocks was carried out by around 6% of the overall book but had been more heavily favoured by those accounts opened in the pre-Covid period with 15% of accounts trading BNPL.

The elevated investment in this sector continued during the post-lockdown period,

with around one in five accounts trading BNPL stocks – representing a 2.5x growth.

Those accounts opened during lockdown were the main driver with over one in four new accounts (26%) trading BNPL.

While BNPL stocks were actively traded by all age segments and men and women, they were mainly favoured by one in five Generation Z investors.

Tilley says the trust and loyalty consumers have for these brands is playing out in the investment world.

"Self-directed investors are the users of buy now, pay later products and they are following basic investment principles by investing in the brands that they know and trust."

Jumping on travel stocks during COVID

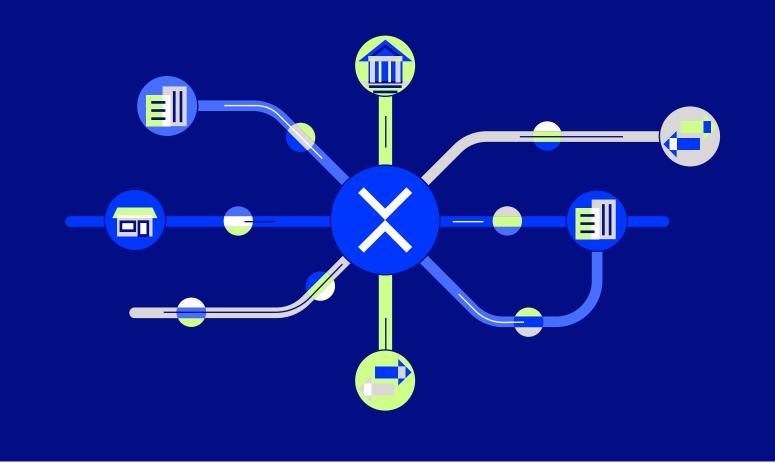
Almost one in three self-directed accounts traded a travel stock during the lockdown period, and a lot of that was driven by the younger generations.

More than one in four Generation Z and Millennial investors traded a travel stock during the lockdown period – this was a massive increase on the pre-COVID level of around 11%. This corresponds with the trend of jumping on an opportunity when they saw it, as many companies in this sector suffered

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large losses to their share prices, which in turn provided investors with a chance to buy-in low. Self-directed investors have been net buyers of travel stocks; pre-COVID the average of 57% buys, which rose to over 70% in March to June 2020.

By comparison, both adviser-led segments increased their participation in travel stocks during lockdown, but only by around 1-2 percentage points and still less than one in seven traded travel stocks.



The way forward

While we saw a trading transformation last year, we saw two different and varied approaches in the same environment of volatility. We saw self-directed investors enthusiastically jump into opportunities, while advisers took a more strategic and long-term approach.

We believe that the rise in self-directed investors is here to stay, although we feel that the highs of last year won't be readily replicated.

What may or may not have worked in a COVID-19 environment will change as markets settle into a new period. For self-directed investors, it will be essential to do the right research to gain a good understanding of markets and stocks.

The industry also has a heightened responsibility to connect with self-directed clients to support their education and awareness of the investing world. We see that self-directed investors are trading differently to advisers on behalf of their clients, and there can be an opportunity to close the gap. By connecting this with the burgeoning market of younger investors and women, and helping them understand their long-term goals, there is also a benefit and opportunity for intermediaries to grow their business base.

ASIC outlined concerns in their report *Retail investor* trading during COVID-19 volatility that a portion of self-directed investors have made behavioural mistakes during this period. Some advice may benefit some of these investors, and there a lot of institutions that offer support, education and can help investors build confidence and experience. There is a continuum of ways that self-directed investors can avail themselves of advice, from full service through to some kind of assisted advice, education offered through brokers, or some form of robo-advice.

This heightened interest and participation in investing provides intermediaries with many opportunities. This, coupled with the demographic step change, including the influx of new, younger traders and a growth in females investing, and technology as a driver, provides a future roadmap for success for many in the industry.

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AUSTRALIA'S TRADING TRANSFORMATION

AUSIEX fact sheet

What we do

At AUSIEX, we work across all segments of the wholesale market, specialising in equities execution, clearing and settlement services, and equities administration.

Essentially, we support intermediaries with products and services to help provide trading solutions to Australian investors. For the last 15 years, we have also worked with some of Australia's leading financial institutions, powering the Australian equity component of their offering.

Our knowledge and understanding of the market infrastructure and interconnectedness sets us apart – we have 25 years of experience in this area. We can help financial institutions, intermediaries, advisers and industry participants meet the changing needs of the self-directed investor by seamlessly connecting them to markets and delivering a first-class client proposition.

We can also leverage strong market infrastructure from NRI to supplement our capability in the market. Through NRI, we have a shareholder with a strong balance sheet and access to tech capability for development to help us deliver on our strategy.

Customer base

We currently service:

- > Over 450,000 self-directed customers
- > Five of Australia's top 10 wealth platforms
- > Over 800 dealer groups
- > Over 4,000 advisers

What we offer

- > Standard and advanced trading solutions through our online trading platform
- > Trade execution services
- > Branded trading solutions
- > Origination services
- Data and reporting services (data feeds, tax reporting, mailbox services, corporate actions, custodial and non-custodial reporting)
- Back-office services (client investments administration, tax parcel management, custodial and non-custodial equities administration).



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