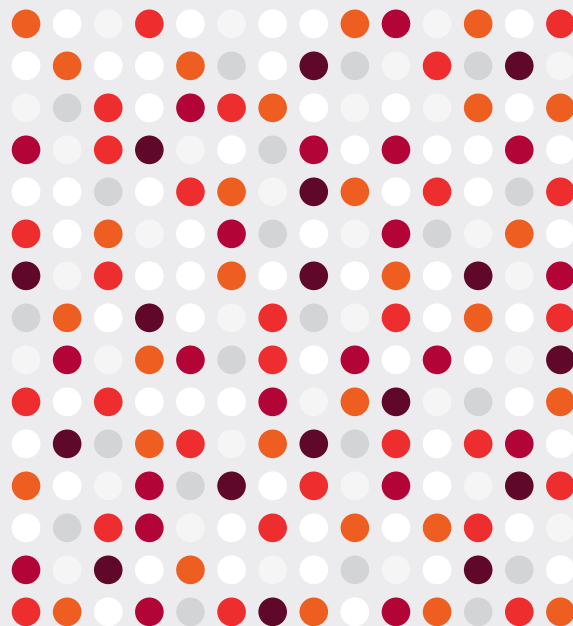


# Vanguard ETF quarterly report

March quarter 2020

## In this edition:

- The Australian ETF market weathered the storm in Q1 attracting \$3.8b with Vanguard ETFs taking 40% and remaining number one for cash flow at \$1.5b.
- Vanguard Australian Shares Index ETF (VAS) was the most popular ETF product in the Australian ETF market attracting \$752m in Q1 2020.
- Vanguard was 1st for Q1 2020 domestic equity ETF and fixed income cash flow ETF.



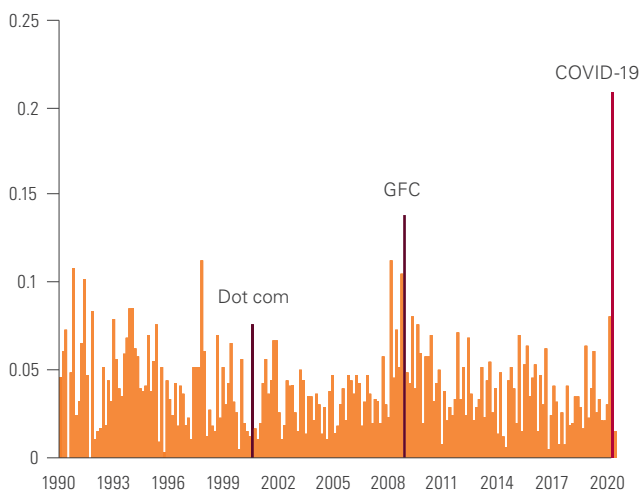
## Quarter in review

The beginning of 2020 has brought with it turbulent times as the accelerated spread of COVID-19 presents unprecedented challenges for the world's economies. The events of Q1 leave 2019's concerns regarding a possible US recession, trade wars and Brexit feeling inconsequential in comparison to the uncertainty and market carnage wrought by COVID-19. While initially assumed to be an epidemic confined to China, the speed of spread outside of China soon ensured that the declaration of a global pandemic was all but inevitable.

Reflecting this new reality, global equities have fallen sharply, with the ASX recording its worst sell-off in recent history (**Figure 1**). While bonds have not been immune to this selling pressure, extraordinary monetary accommodation from central banks have limited some of these effects, pushing bond yields to historical lows (**Figure 2**, over). As volatility continues to plague global markets in the coming months, investors should remain focused on long-term outcomes – most often realised by staying the course.

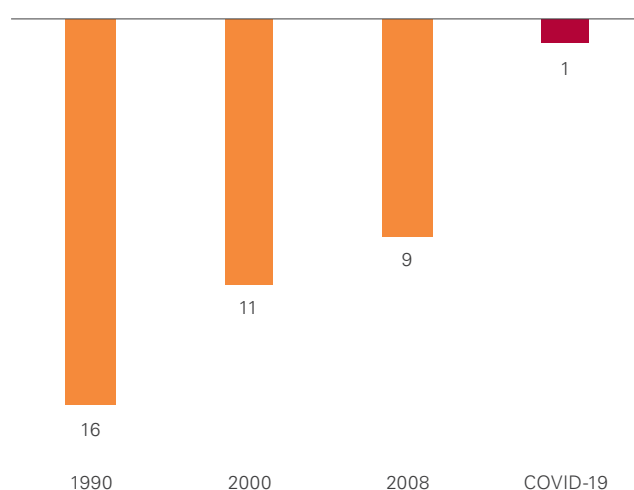
**Figure 1. A very volatile month for Australian equities**

All Ordinaries absolute percentage change by month

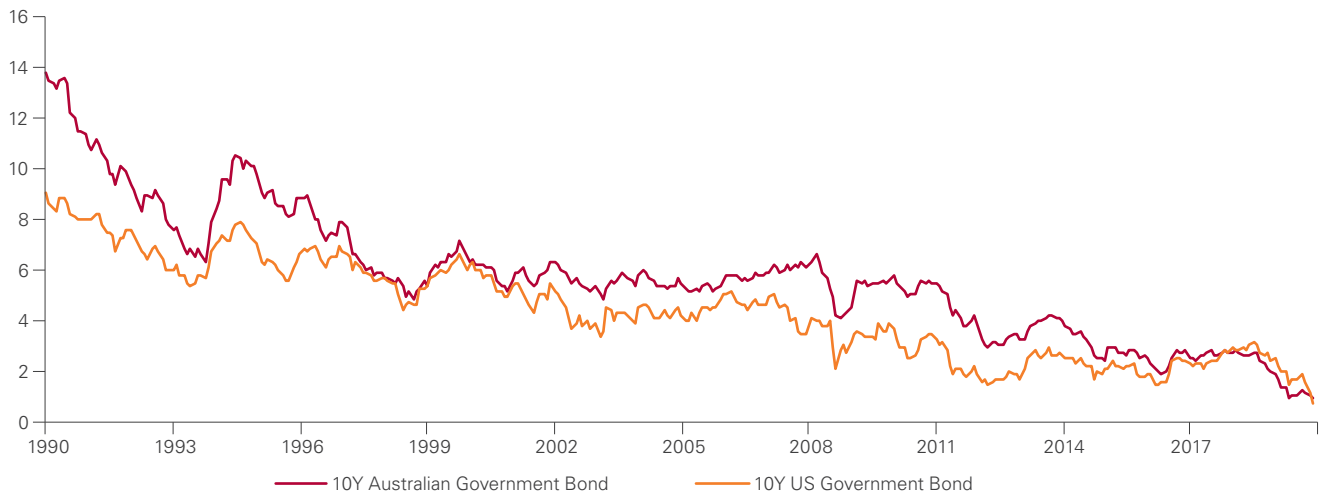


Source: Vanguard, based on data from FactSet.

**Time for markets to hit bear territory (months)**



**Figure 2. Extraordinary monetary easing has seen bond yields reach historical lows**



Source: Vanguard, based on data from FactSet.

Initial government responses were at best modest and had little effect in calming market fears of a GFC-like recession. It was only when unprecedented fiscal packages were announced by the world’s governments did we gain some reprieve from the fall. Most encouraging has been the policy response from the likes of certain parts of Europe and Australia, where the respective governments have committed to pay a significant proportion of workers’ wages during the lockdown to enable companies to keep their staff despite the dramatic hit to sales. This is exactly the type of policy needed to deal with this type of shock, to give those economies the best chance of rebounding sharply once the health situation is under control.

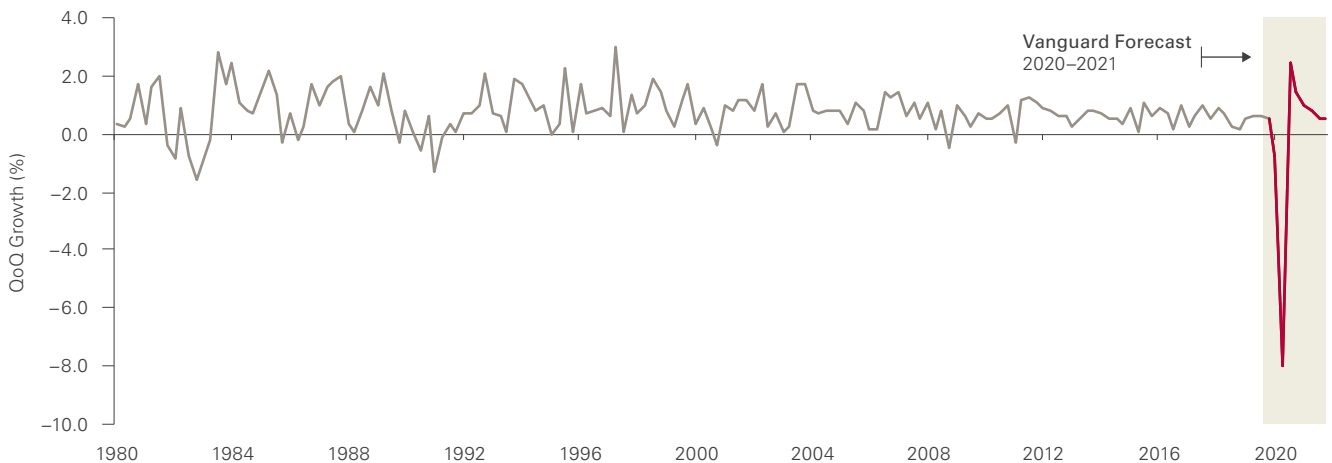
On the monetary front, we also saw some historic moves from global central banks, with the Fed announcing unlimited Quantitative Easing (QE), ECB and BOJ expanding their asset purchase programs, and the RBA locally also launching Yield Curve Control QE for the first time while cutting rates to the effective lower bound of 0.25%. These extraordinary policies should help to keep government borrowing costs low, despite the massive fiscal stimulus that is required to deal with the economic consequences of the virus.

While we have had experience and prior exposure to economic downturns, the current situation presents a unique conundrum. Akin to a war-time recession, the fall in economic activity has been forced through both a demand and supply-side shock. This is a stark contrast to the events of the GFC, dot com bubble and 1987 crash downturns, which were mostly brought on through crashes in financial markets and imbalances in household and corporate balance sheets. A unique situation demands a unique outcome – which leads us to believe that investors should expect a deep recession offset by the potential for a swift recovery.

**Economic outlook**

The effects of the ‘one, two punch’ simultaneous supply and demand shock will be the main drivers behind the deep global recession investors will likely face. On the supply side, the temporary closure of many factories will see a sharp decline in the production of goods and services. This will be complemented by a decrease in global demand, as people are confined to their homes except for only the most essential of outings and purchases.

**Figure 3. Sharp but short recession expected in Australia**



Source: Vanguard.

The combination of the above should lead investors to expect the unexpected and fuels our belief that the coming recession, while possibly being the deepest we have experienced in modern times, will be of relatively short duration. **Figure 3** (previous) shows the trough occurring in Q2 under our baseline scenario, where we see the exogenous shock running a relatively short duration as lockdown restrictions are lifted and business returns to normal conditions.

Further out, the outlook for global growth is heavily dependent on the extent to which COVID-19's spread can be slowed or eradicated. Should the infection curve flatten and we observe a relaxing of social distancing measures by mid-2020, growth will likely rebound in the second half of the year. The strength of an eventual recovery and its presentation as a 'U' or a 'V' shape depends largely on the depth and breadth of unemployment and the extent to which consumers can overcome lingering fears of a COVID-19 resurgence and resume normal activities. In more negative scenarios, where strict isolation policies are prolonged for the remainder of the year, a recovery is much less likely to occur and a protracted recession should be expected.

On a more specific scale, we expect the world's biggest economy, the US, to experience moderately negative growth. Similarly, Japan and Europe will experience contractions, though the depth of the contraction is contingent very much on the aggressiveness of containment policies in the coming weeks. Meanwhile China, who on face value has already

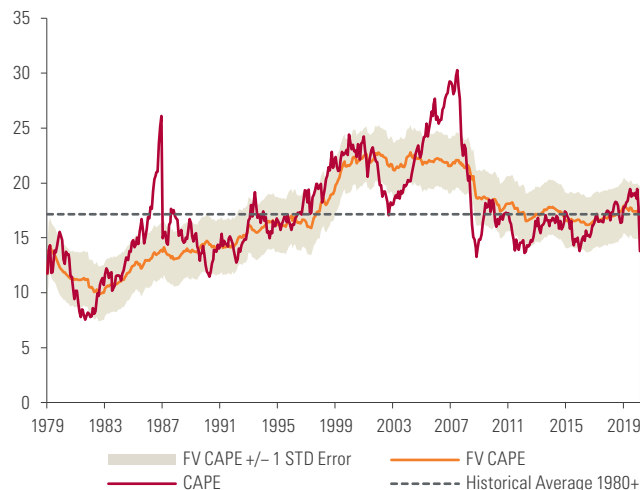
experienced the peak of the crisis, is expected to show weakly positive growth.

Despite having benefits of being a distant island, Australia will not be spared from a contraction either, with domestic lockdowns compounding the negative effects that were first felt from lower China demand. While many have pointed out that this will be Australia's first recession in close to 30 years, we would argue that according to other metrics pertaining to recession definitions, such as slowdowns in economic activity of over two standard deviations in size or per capita, Australia has actually had a number of recessions since the early 1990s and that moving away from a 'recession obsession' may help to reduce unnecessary panic.

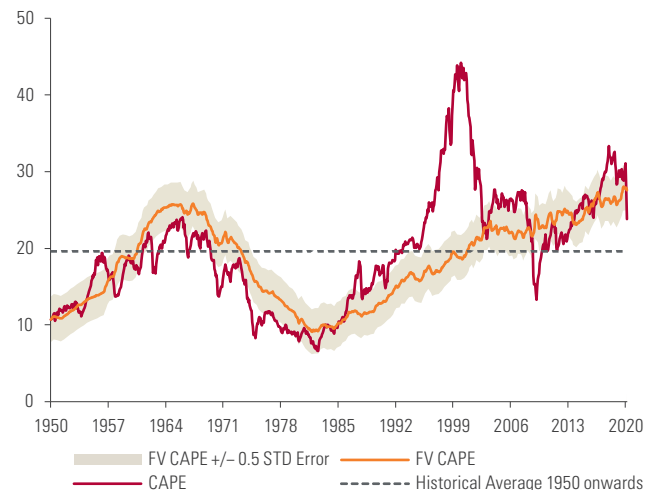
Overall, the global economic outlook may appear to be bleak at this stage, but we note the silver lining for financial markets is that valuations on many risk assets have become much more reasonable now, resulting in better long-term return outlooks. **Figure 4**, for instance, shows that Australian equity valuations are now not only fairly valued, but even somewhat undervalued given the sharp drawdowns in recent weeks. A similar statement can be said of many other equity markets across the world, including the US equity market, which for some time, was recognised as being in extended territory. Consequently, a sell-off of growth assets at this point would be mistimed and could give up potential large gains relative to a portfolio that stays the course.

**Figure 4. Equities have now become undervalued**

**AUS Fair Value Cape**



**US Fair Value Cape**



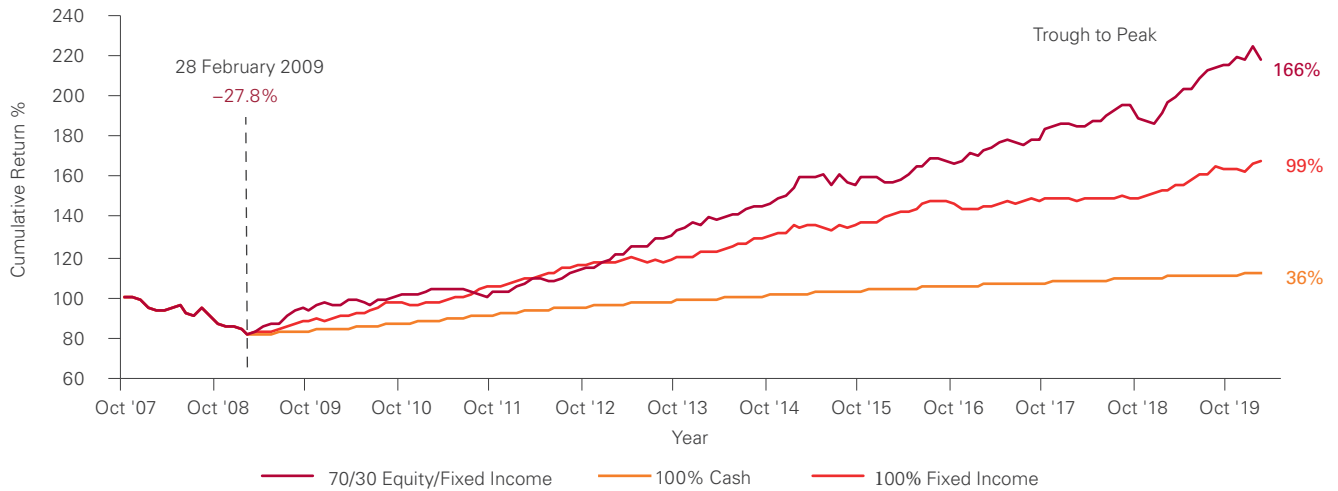
**Notes:** "Fair-value CAPE" is based on a statistical model that corrects CAPE measures for the level of inflation expectations and for lower interest rates. The statistical model specification is a vector error correction (VEC), including equity-earnings yields, ten-year trailing inflation, and ten-year Treasury yields. The U.S. FV CAPE uses ten-year U.S. Treasury yields and is estimated over the period January 1940 – March 2020. The Australian FV CAPE uses ten-year Govt. bond yields and also includes ten-year trailing equity and bond volatility, estimated over the period January 1970 – March 2020.

**Source:** Vanguard calculations, based on data from the Reserve Bank of Australia, Robert Shiller's website, at [aida.wss.yale.edu/~shiller/data.htm](http://aida.wss.yale.edu/~shiller/data.htm), U.S. Bureau of Labor Statistics, the Federal Reserve Board and Thomson Reuters Datastream.

**Figure 5** shows the impact of fleeing an asset allocation during a bear market for equities. In this example, the investor moves out of equities on February 28, 2009, to avoid further losses. While the 100% cash portfolio experienced less

volatility, the investor who chose to stay with the original asset allocation recovered most completely from the 2009 setback to earn a superior return.

**Figure 5.** The importance of maintaining discipline: Reacting to market volatility can jeopardize return



Source: Vanguard, based on data from FactSet.

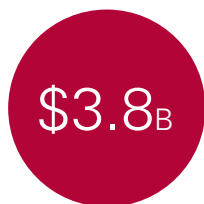
It's understandable that during the losses and uncertainties of a bear market in stocks, many investors will find it counterintuitive to rebalance by committing more capital to underperforming assets (such as stocks). But history shows that the worst market declines have led to some of the best opportunities for buying stocks. Investors who did not rebalance their portfolios by increasing their stock holdings at these difficult times not only may have missed out on subsequent equity returns but also may have hampered their progress toward long-term investment goals – the target for which their asset allocation was originally devised.

Because investing evokes emotion, even sophisticated investors should arm themselves with a long-term perspective and a disciplined approach. Abandoning a planned investment strategy can be costly, and research has shown that some of the most significant derailers are behavioural: the failure to rebalance, the allure of market-timing, and the temptation to chase performance.

## Australian ETF Update

With momentum carrying over from our record-breaking cash flows in the third and fourth quarters of 2019, the first quarter of 2020 shaped up to be our third best quarter with just over \$1.5 billion in cash flow. As our best quarter one on record, Vanguard captured nearly 40% of the Australian \$3.8 billion in ETF market cash flow. Although there were net positive inflows over January, February, and March into ETFs, overall assets under management by the end of the quarter fell due to the downturn in value of the underlying holdings.

Early in the quarter, Global Equities captured the majority of Australian ETF cash flow. However, as the quarter closed, investor preference shifted strongly to Australian Equities and Commodities as investors were looking to bring investments closer to home and into gold for perceived safety. As March rounded out, investors indulged in their home biases and we saw opportunistic buying activity with the lower prices in Australian Equity ETFs. With the Australian Dollar weak against the Greenback, we saw investors reposition themselves moving from hedged international equities into unhedged positions. Closing out the quarter, Australian Equity ETFs represented 49.9% of cash flow followed by Global Equities and Commodities with 27% and 12.9% respectively.



Total ETF cash flows  
for Q1 2020

### Performance

Fixed Income products were the best performers of the quarter. The Vanguard Australian Government Bond Index ETF (VGB) had the highest quarter returns with a modest 3.61%. Investors shifted preference dramatically towards higher quality credit moving away from corporate bonds and into government bonds, but this has tapered somewhat since governments announced company stimulus packages to bolster corporates and bring stability to markets.

Other fixed income products such as the Vanguard International Fixed Interest Index ETF – Hedged (VIF), Vanguard Australian Fixed Interest Index ETF (VAF), Vanguard Ethically Conscious Global Aggregate Bond Index ETF (VEFI), Vanguard Global Aggregate Bond Index Fund -Hedged (VBND) and Vanguard Australian Corporate Fixed Interest Index ETF (VACF) saw quarterly returns in positive territory.

Conversely, all equity products finished down for the quarter but the Vanguard Global Infrastructure Index ETF (VBLD), Vanguard FTSE Asia ex Japan Shares Index ETF (VAE), and Vanguard Ethically Conscious International Shares Index ETF (VESG) were the best in the equity line-up.

By and large, the Vanguard Australian Shares Index ETF (VAS) attracted the most in flows in our product range and remains our most popular product.

### Industry cash flow by asset class

Asset class	Quarter	
	(\$m)	%
Australian Equity	1,897	49.9%
Global Equity	1,026	27.0%
Infrastructure	124	3.3%
Australian Fixed Income	-17	-0.5%
Global Fixed Income	142	3.7%
Cash	-190	-5.0%
Australian Property	117	3.1%
Global Property	30	0.8%
Commodity	492	12.9%
Currency	54	1.4%
Mixed	125	3.3%
<b>Total</b>	<b>3,801</b>	<b>100%</b>

Source: ASX Monthly Report and Vanguard.

### Industry cash flow by issuer

Issuer	Cash flow \$m	Cash flow %	AUM \$m
AMP/BetaShares	-7.7	-0.2%	62.1
Beta Shares	821.7	21.6%	9,098.5
ETFS	316.5	8.3%	2,359.7
Fidante	26.7	0.7%	164.7
Fidelity	24.3	0.6%	73.7
InvestSMART	-0.6	0.0%	37.8
iShares	195.0	5.1%	13,928.5
K2	-0.1	0.0%	10.7
Legg Mason/BetaShares	-7.3	-0.2%	186.9
Magellan	113.9	3.0%	2,308.5
Montgomery	-0.4	0.0%	79.2
Morningstar	0.0	0.0%	9.6
Perennial	0.0	0.0%	9.8
Pinnacle	0.6	0.0%	20.6
Antipodes	-1.3	0.0%	22.2
Russell	94.8	2.5%	765.3
Schroders	-6.5	-0.2%	43.3
State Street	286.7	7.5%	5,192.1
Switzer	3.9	0.1%	161.8
The Perth Mint	103.0	2.7%	456.3
Platinum	-28.1	-0.7%	456.5
UBS	-10.1	-0.3%	230.2
VanEck	367.3	9.7%	3,623.6
<b>Vanguard</b>	<b>1,508.5</b>	<b>39.7%</b>	<b>17,587.9</b>
<b>Total</b>	<b>3,801</b>	<b>100%</b>	<b>56,889.5</b>

Source: ASX Monthly Report and Vanguard.

## Vanguard product summary

Asset Class	ASX Ticker	Last Price#	MER (%)	Quarter Return (%)	1 Year Return (%)	3 Year Return (% p.a.)	Quarterly Cash Flow (m)	FUM (m)
<b>Australian Equity ETFs</b>								
Broad Market	VAS	64.92	0.10	-23.39	-14.58	-0.69	752.4	4,185.1
Property	VAP	57.64	0.23	-34.28	-31.39	-4.88	119.9	1,200.5
High Yield	VHY	44.62	0.25	-24.57	-18.11	-4.26	72.0	1,099.4
Large Companies	VLC	52.88	0.20	-21.10	-12.73	-0.80	0.8	84.7
Small Companies	VSO	42.68	0.30	-27.04	-21.24	-1.81	10.7	272.0
<b>International Equity ETFs</b>								
Developed Markets	VGS	72.99	0.18	-8.97	4.56	10.05	40.5	1,959.4
Developed (AUD hedged)	VGAD	59.68	0.21	-21.05	-10.98	1.72	167.6	774.8
All world Ex US	VEU	65.75	0.08	-12.33	-2.25	5.33	43.9	1,461.0
Total US Market	VTS	210.38	0.03	-9.14	5.32	11.91	-3.6	1,678.9
Developed Europe	VEQ	50.09	0.35	-14.75	-3.64	4.17	5.7	216.9
Asia ex Japan	VAE	62.79	0.40	-6.76	-0.46	7.44	-7.6	172.3
Emerging Markets	VGE	59.72	0.48	-13.28	-6.05	3.86	14.5	322.8
Global Infrastructure	VBLD	57.66	0.47	-4.68	5.45	—	12.7	88.1
International Small Companies	VISM	43.85	0.32	-19.44	-9.63	—	6.0	29.3
ESG	VESG	52.45	0.18	-6.85	8.48	—	35.8	99.6
Minimum Volatility – Active	VMIN	48.78	0.28	-18.57	-9.08	—	-2.6	10.5
Global Value – Active	VVLU	35.90	0.28	-29.46	-22.52	—	5.4	19.2
Multi Factor – Active	VGMF	54.33	0.33	-19.50	—	—	1.1	14.6
<b>Fixed Income ETFs</b>								
Australian Composite	VAF	52.75	0.20	3.01	6.67	5.58	30.8	1,379.6
Australian Government	VGB	54.00	0.20	3.61	7.35	5.92	56.0	485.0
Australian Corporate	VACF	52.00	0.26	0.61	4.51	4.79	-59.8	325.2
International Treasury (AUD hedged)	VIF	51.75	0.20	3.29	7.03	4.75	23.9	469.1
International Credit (AUD hedged)	VCF	47.75	0.30	-3.39	2.02	3.17	40.2	174.7
Global Aggregate (AUD hedged)	VBND	53.00	0.20	0.95	5.38	—	3.5	149.9
ESG	VEFI	53.56	0.26	1.49	5.63	—	1.1	16.4
<b>Diversified ETFs</b>								
Conservative	VDCO	52.60	0.27	-4.66	1.42	—	6.0	101.9
Balanced	VDBA	51.24	0.27	-8.49	-0.85	—	23.4	227.6
Growth	VDGR	49.34	0.27	-12.31	-3.50	—	29.8	214.8
High Growth	VDHG	47.68	0.27	-16.02	-6.14	—	78.5	310.8
<b>TOTAL</b>							<b>1,508</b>	<b>17,544</b>

Returns assume that an investor purchased shares at Net Asset Value and does not reflect transaction costs imposed on the creation and redemption of ETF units, the brokerage or the bid ask spread that investors pay to buy and sell ETF securities on the Australian Securities Exchange. Total returns are after management costs.

Source: Vanguard and Bloomberg.

## The pulling power of ETFs



**Tony Kaye**  
Personal Finance Writer  
Vanguard Australia

The sharp plunges on global equity markets over recent weeks, driven by the coronavirus pandemic, have triggered widespread investor concerns over what will happen in the short to medium term.

Yet, in the midst of the strong volatility on markets, it seems many retail investors are taking a longer-term perspective and viewing the current events as an opportunity.

Rather than exiting their equity positions, trading data not just from Australia, but globally, shows there has been a surge in equity buying activity.

That trend has been very prominent in the exchange traded funds sector, where trading volumes on some days recently were more than 10 times the average.

But, in the wash-up of that heavy trading was a big increase in net inflows, predominantly into equity ETFs. In other words, on a total basis, investors have been net buyers.

The Australian market, for example, has recorded substantial net inflows into ETF index funds covering Australian and international equities, with ETF unit creations far surpassing redemptions.

Some of those inflows have been at the expense of Australian fixed interest ETFs, which have recorded net outflows, although international fixed interest ETFs have recorded gains.

Vanguard data from the United States shows that during recent weeks the majority of retail investors who made trades in their accounts moved money into ETF equities.

Since the elevated volatility began in late February, between 62 per cent and 79 per cent of Vanguard households who moved money on a given day went into equities. The share of households moving into bonds ranged from 18 per cent to 34 per cent over that period.

The record trading volumes in ETFs over recent weeks have underscored a number of key factors.

### Liquidity not an issue

Firstly, contrary to some misconceptions about how ETF buying and selling activity affects the trading of the underlying securities they hold, more than 90 per cent of all the trading activity in ETFs has taken place on secondary markets such as the ASX.

That means the vast bulk of ETF unit creations and redemptions have been fulfilled as a result of the ready availability of ETF units traded on-market.

Secondary market transactions do not involve any trading in an ETF's underlying securities.

### Trading liquidity has not been an issue.

Market liquidity for ETFs is maintained by 'market-makers' who ensure that buy and sell prices are quoted continuously on the ASX. The structure of ETFs ensures this investment generally trades close to the net asset value (NAV). The NAV is the underlying total value of net assets divided by the number of units on issue.

In line with prior periods of volatility, ETF bid-ask spreads widened during the latest volatility as market makers adjusted their quotes to compensate for higher trading costs.

### The flight to diversification

The net inflows into broad-based index-tracking ETFs also has highlighted the growing recognition by investors of the importance of market and sector diversification.

ETFs covering a whole index, such as the S&P/ASX 300 Index, will generally experience lower volatility on a long-term basis than a small portfolio of direct shares.

So, it's evident investors are choosing to spread their equity risk exposure rather than having too much concentration in individual companies or smaller portfolios managed by the majority of Australia's listed investment companies (which continue to trade well below their net asset values).

The other facet to diversification in the ETFs context is the use of diversified ETF products to achieve different asset class exposures based on individual investment goals.

This trend is likely to increase over time as investors seek to manage their exposures to different types of assets, such as Australian and international equities, bonds and property.

### The importance of staying focused

Extreme volatility and market stress can test investors' resolve. In times like these, it's especially important for investors to focus on the things they can control:

- Creating clear, appropriate investment goals, and evaluate these goals on a regular, ongoing basis.
- Developing and maintaining an asset allocation that is suitable for the investor's goals, using broadly diversified funds.
- Minimising costs and managing investments for tax efficiency.
- Maintaining perspective and long-term discipline by being informed of market events but not overreacting to them.

#### For more information

Personal investors can transact in Vanguard ETFs through their financial adviser or stockbroker. Our telephone service is available from 8am to 5pm, Monday-Friday AEST.

#### For personal investors

Call: 1300 655 888  
Email: [clientservices@vanguard.com.au](mailto:clientservices@vanguard.com.au)

#### For advisers

Call: 1300 655 888  
Email: [adviserservices@vanguard.com.au](mailto:adviserservices@vanguard.com.au)

#### For institutional investors

Call: 1300 655 888  
Email: [institutional@vanguard.com.au](mailto:institutional@vanguard.com.au)



#### Connect with Vanguard™

- > [vanguard.com.au](http://vanguard.com.au)
- > 1300 655 888

Vanguard Investments Australia Ltd (ABN 72 072 881 086 / AFS Licence 227263) ("Vanguard") is the issuer of the Vanguard® Australian ETFs. Past performance is not an indication of future performance. In preparing the [above information], individual circumstances, for example tax implications, have not been taken into account and it may, therefore, not be applicable to an individual's situation. Before making an investment decision, you should consider your circumstances and whether the [above information] is applicable to your situation. Vanguard ETFs will only be issued to Authorised Participants. That is, persons who have entered into an Authorised Participant Agreement with Vanguard ("Eligible Investors"). Retail investors can transact in Vanguard ETFs through a stockbroker or financial adviser on the secondary market. Investors should consider the Prospectus and Product Disclosure Statement in deciding whether to acquire Vanguard ETFs. Retail investors can only use the Prospectus and Product Disclosure Statement for informational purposes. You can access the Product Disclosure Statement and Prospectuses at [vanguard.com.au](http://vanguard.com.au). This information is intended for investors in Australia only. Information regarding the US registered products does not constitute an offer or solicitation and may not be treated as an offer or solicitation in any jurisdiction where such an offer or solicitation is against the law or to anyone to whom it is unlawful to make such an offer or solicitation, or if the person making the offer or solicitation is not qualified to do so. Vanguard is the issuer of the Prospectus on behalf of the US listed exchange traded funds ("ETFs") described in the Prospectus. Vanguard has arranged for interests in the US ETFs to be made available to Australian investors via CHES Depository Interests that are quoted on the AQUA market of the Australian Securities Exchange ("ASX"). Bloomberg Finance L.P. and its affiliates (collectively, "Bloomberg") are not affiliated with Vanguard and do not approve, endorse, review, or recommend the fund(s). BLOOMBERG and the Index are trademarks or service marks of Bloomberg and have been licensed to Vanguard. Bloomberg does not guarantee the timeliness, accurateness, or completeness of any data or information relating to the Index. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. BARCLAYS® is a trademark and service mark of Barclays Bank Plc, used under license. Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL") (collectively, "Bloomberg"), or Bloomberg's licensors own all proprietary rights in the Bloomberg Barclays Indices. The products are not sponsored, endorsed, issued, sold or promoted by "Bloomberg or Barclays". Bloomberg and Barclays make no representation or warranty, express or implied, to the owners or purchasers of the products or any member of the public regarding the advisability of investing in securities generally or in the products particularly or the ability of the Bloomberg Barclays Indices to track general bond market performance. Neither Bloomberg nor Barclays has passed on the legality or suitability of the products with respect to any person or entity. Bloomberg's only relationship to Vanguard and the products are the licensing of the Bloomberg Barclays Indices which are determined, composed and calculated by BISL without regard to Vanguard or the products or any owners or purchasers of the products. Bloomberg has no obligation to take the needs of the products or the owners of the products into consideration in determining, composing or calculating the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays is responsible for and has not participated in the determination of the timing of, prices at, or quantities of the products to be issued. Neither Bloomberg nor Barclays has any obligation or liability in connection with the administration, marketing or trading of the products. The funds or securities referred to herein are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any such funds or securities. The PDS contains a more detailed description of the limited relationship MSCI has with Vanguard and any related funds. The index is a product of S&P Dow Jones Indices LLC ("SPDJ"), and has been licensed for use by Vanguard. Standard & Poor's® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"); S&P® and S&P 500® are trademarks of S&P; and these trademarks have been licensed for use by SPDJI and sublicensed for certain purposes by Vanguard. Vanguard product(s) are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the index. © 2020 Vanguard Investments Australia Ltd (ABN 72 072 881 086 / AFS Licence 227263).