Realinsights

Sleep. Zoom. Eat. Repeat.

2021 in review

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Most of us would have started 2021 with the hope that the worst of the COVID crisis was behind us, and some return to normality was just around the corner. We were quickly dislodged from this hopeful place with new variants of the pandemic virus emerging, ongoing lockdowns and travel restrictions, and vaccination resistance and protests.

Nevertheless, the monetary response to the resulting economic downturn has been strong, benefiting all asset classes, especially equities. Here we take a look at how 2021 evolved.

The review below is in three parts. Section 1 comments on markets and factors. Section 2 looks at some of the major themes of 2021, including ETF fund flows, ESG, YFYS ("Your Future Your Super") and macro factors (primarily inflation and GDP growth and their expectations). Section 3 discusses how Realindex has evolved as a business during 2021, and drills down into attribution and performance of our portfolios.

1 Markets and Factors

Chart 1 below (taken from a recent Morgan Stanley publication) provides a useful summary of the major events of the year overlaying the movement of the MSCI ACWI total return index (local currency version - left hand axis) and US 10 year treasury yield (right hand axis). The global equity market is up approximately 20% for the year, performing strongly from April to September and bracketed by selloffs in February and October. There was a flat but volatile finish in the last two months of year.

Bond yields ran strongly until March, then sold off ahead of US inflation spiking later in the year. Strong oil prices and GDP growth rebounds have restarted an upward move in yields, but US tapering is likely (announced and initiated late in 2021 and broad based – not just in the US). [1]

[1] Early indications were that Australia is unlikely to tighten until 2023, although recent news (in early 2022) is increasing pressure to bring this forward

The non-economic news events have had mixed impact on the markets, with announcements of new COVID variants barely having an impact in the longer term at all. Political events (for example, Democrat victory in the US, storming of the Capitol building, and the sudden change in Japanese Prime Minister) seemed to have little lasting effect either, at least on markets.[2]

The year was not without some genuine non COVID surprises, perhaps most notably:

- The emergence of meme stocks like Gamestop in late January 2021.
- The "on-again-off-again" default of China property giant Evergrande in Q3 and Q4
- The very strong run up in oil prices during Q3 in particular
- The weakness of the AUD against many developed market currencies
- The unexpected spike in US inflation and the likely economic policy response ("tapering") following it

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Currency and commodity price moves were quite significant during 2021. For example, the AUD fell against the USD from about 77c in January 2021 to around 72c by December. In fact, as Chart 2 shows, the AUD was down against most major currencies during the year, although it was slightly up against the Euro and the Yen. It was strongly down against the Renminbi, in fact the RMB outperformed the USD over year, despite the USD being stronger than most emerging market currencies. We can also see that in general the AUD did better in the last 3 months of the year than the preceding 9 months.

Commodity prices were also generally very strong during the year, as expectations of economic recovery drove up demand and supply chain issues cut supply. Chart 3 shows a selection of commodity price moves in local currencies. Crude oil was especially strong in the first 9 months of the year, hitting a high of over USD85 before dropping back to around USD80 by year end. Metals were strong too, but perhaps surprisingly the usual run to precious metals like gold in a crisis has not shown up. Agricultural commodity prices were also up, with supply chain issues again dominating. We are also drinking more coffee it seems.

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[2] The democracy "crisis" in the US is still gathering a lot of discussion and speculation

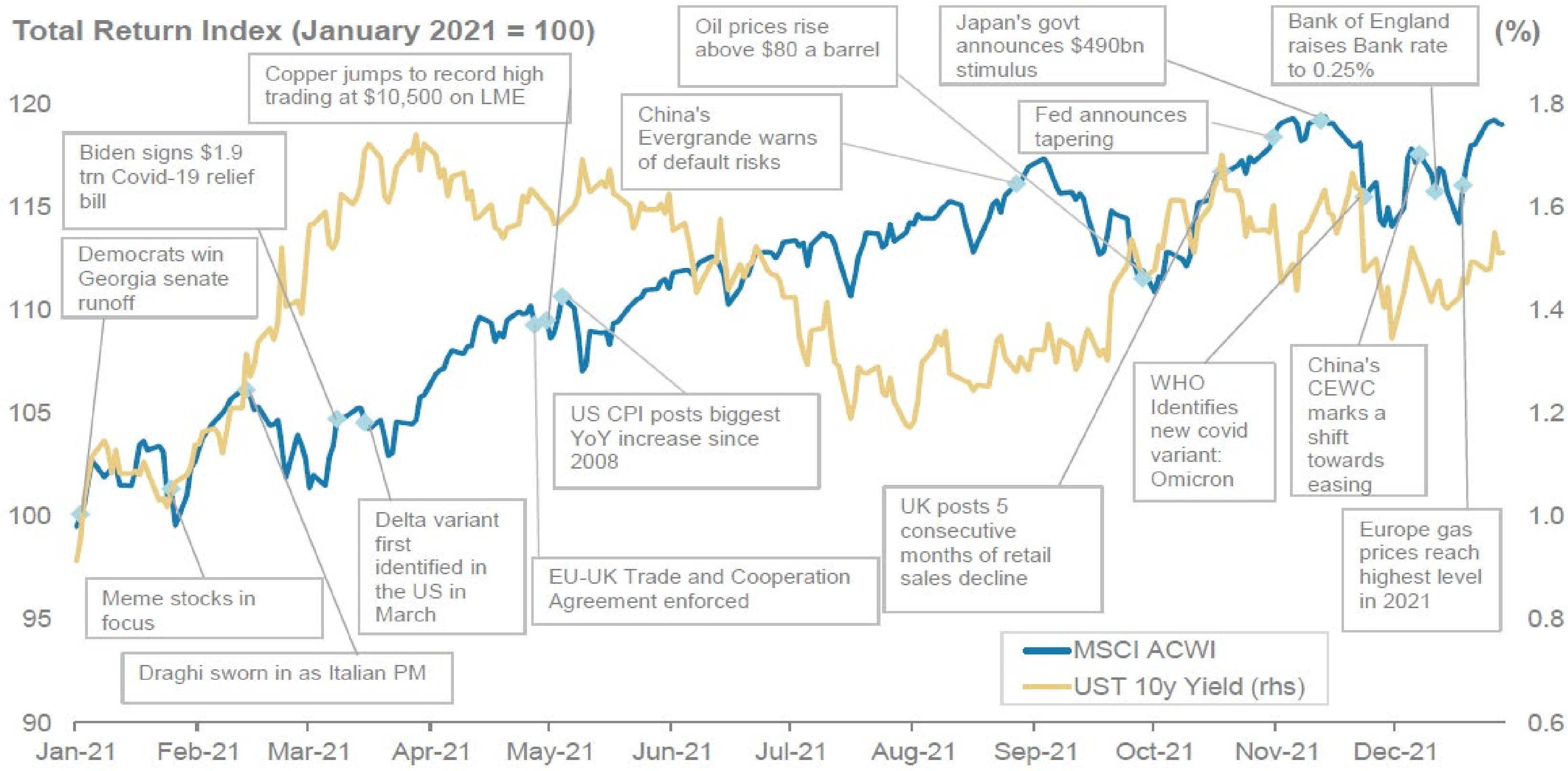
In general, developed markets were up strongly during 2021, despite ongoing COVID issues and uncertain economic growth on the back of the proposed stimulus packages. See Chart 4 below. Comfort over the success of vaccines, coupled with strong resource demand, has seemed to drive much of this. However, the emergence of the Delta variant (April) and the Omicron variant (November) have pushed the economic and health system recoveries back into H1 2022 and perhaps even beyond.

The index returns when stock prices are expressed in local currency were much higher than when expressed in AUD, with the fall in the AUD against most major currencies. Value slightly outperformed Growth, with Value the outperformer in the first half and Growth in the second half. Energy and IT were especially strong, but all sectors had good years, driven almost entirely by the first 9 months. The final three months saw much more muted performance; communication services even sold off slightly in the last three months of the year.

Emerging markets (see Chart 5) in general has had a much weaker year. China and Brazil were off, more in local currency terms than in AUD with the AUD's fall. Consumer Discretionary, Health Care and REITs were the worst sectors, Energy was the best but even that sector finished the year weakly. India and Russia had good full year returns but even they sold off at year end.

In Australia, the pattern was similar to other developed markets, with a good first nine months and a flat last quarter. Chart 6 shows the returns. Value again slightly outperformed Growth (again with Growth outperformer in the second half). Small Resources, as well as broad market Financials, REITs and Communication Services, all had good years. Energy in Australia was flat for the full year.

Chart 1: Wall chart of 2021 markets and events [3]



Source: Morgan Stanley Research

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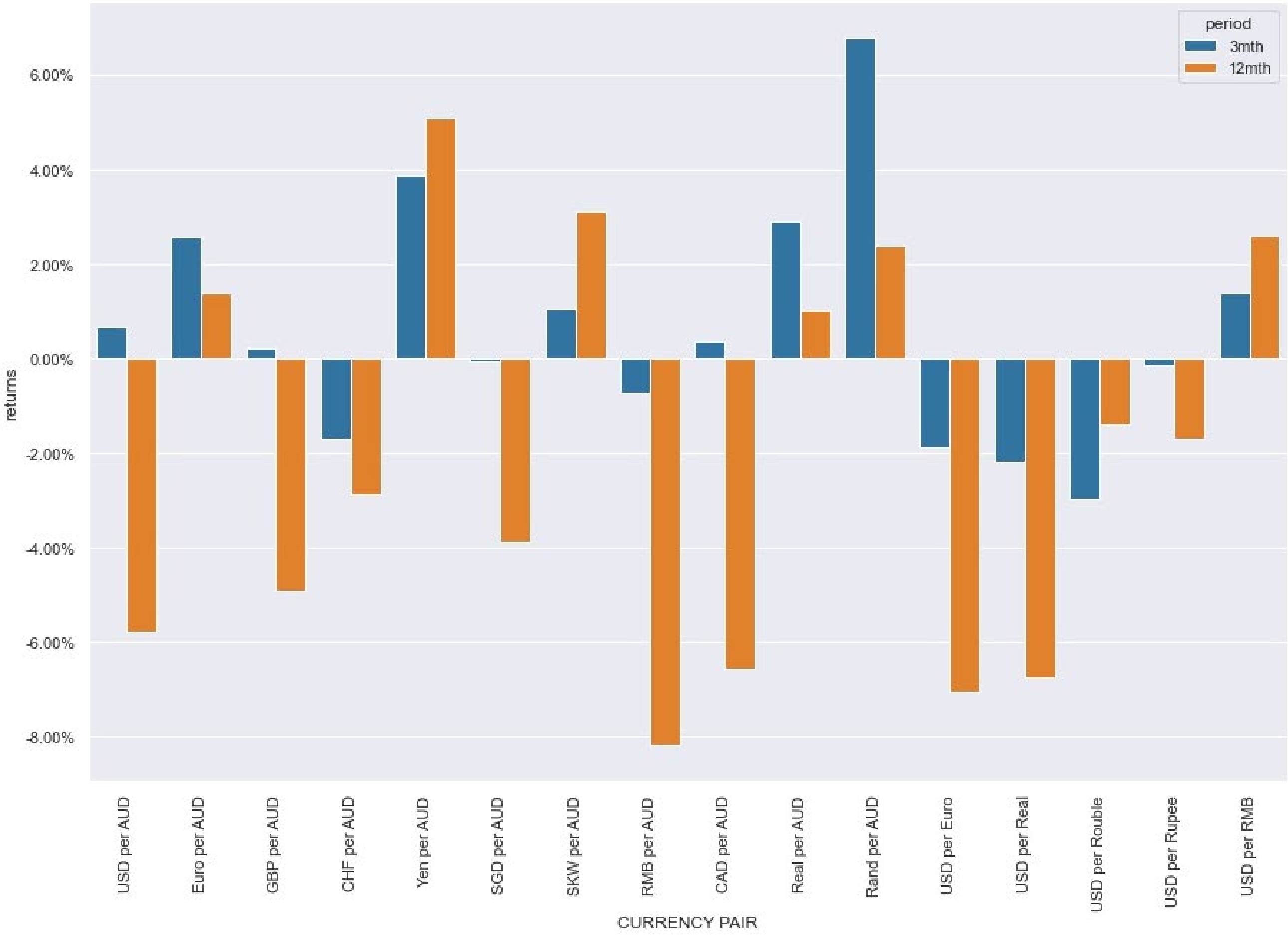
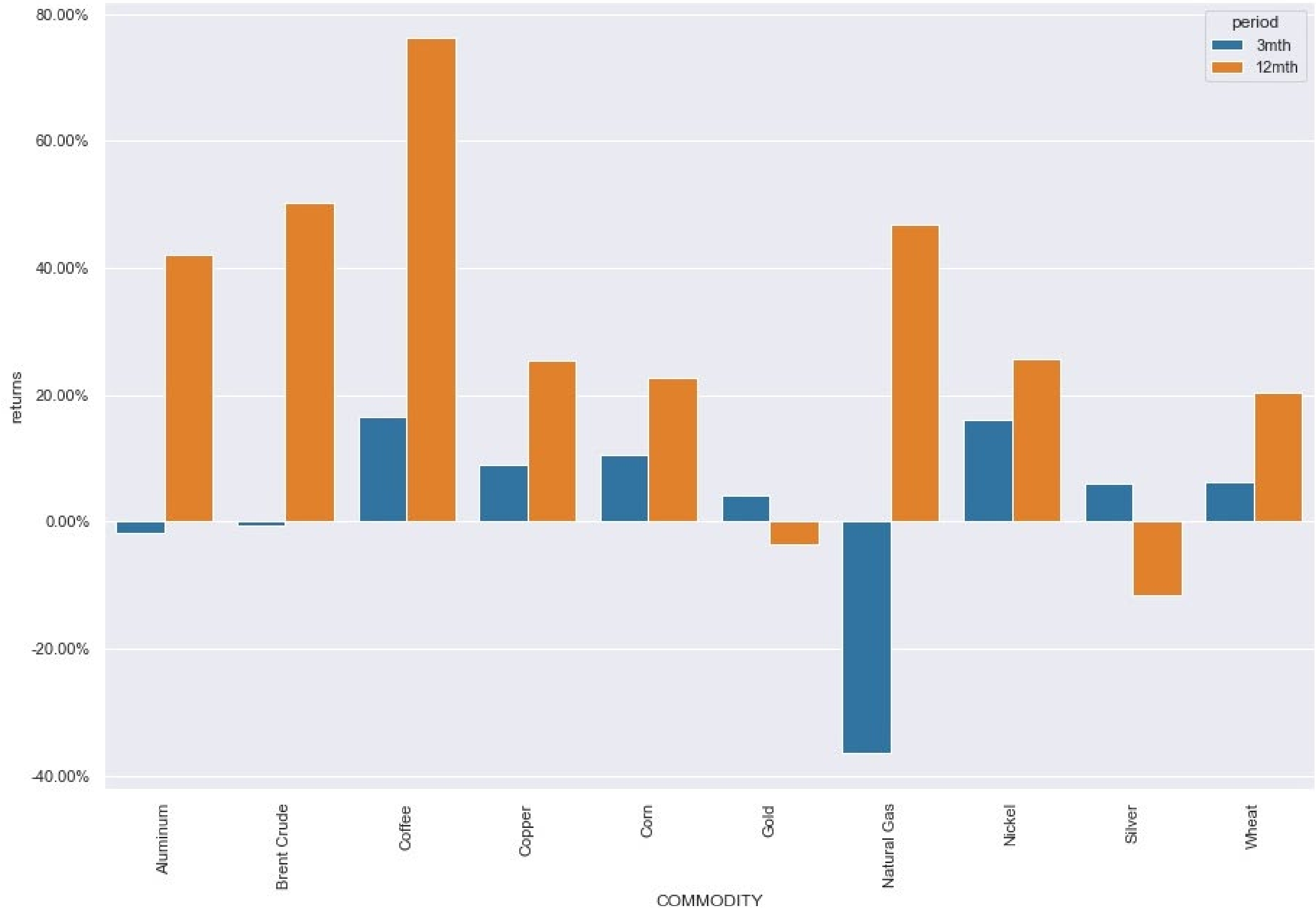
3 Morgan Stanley Global research, Zlatko Hadzibegovic et al (Jan 2022) " Global In the Flow: 2021 by the Numbers"

Chart 2: Selected Currency Pair Returns[4]



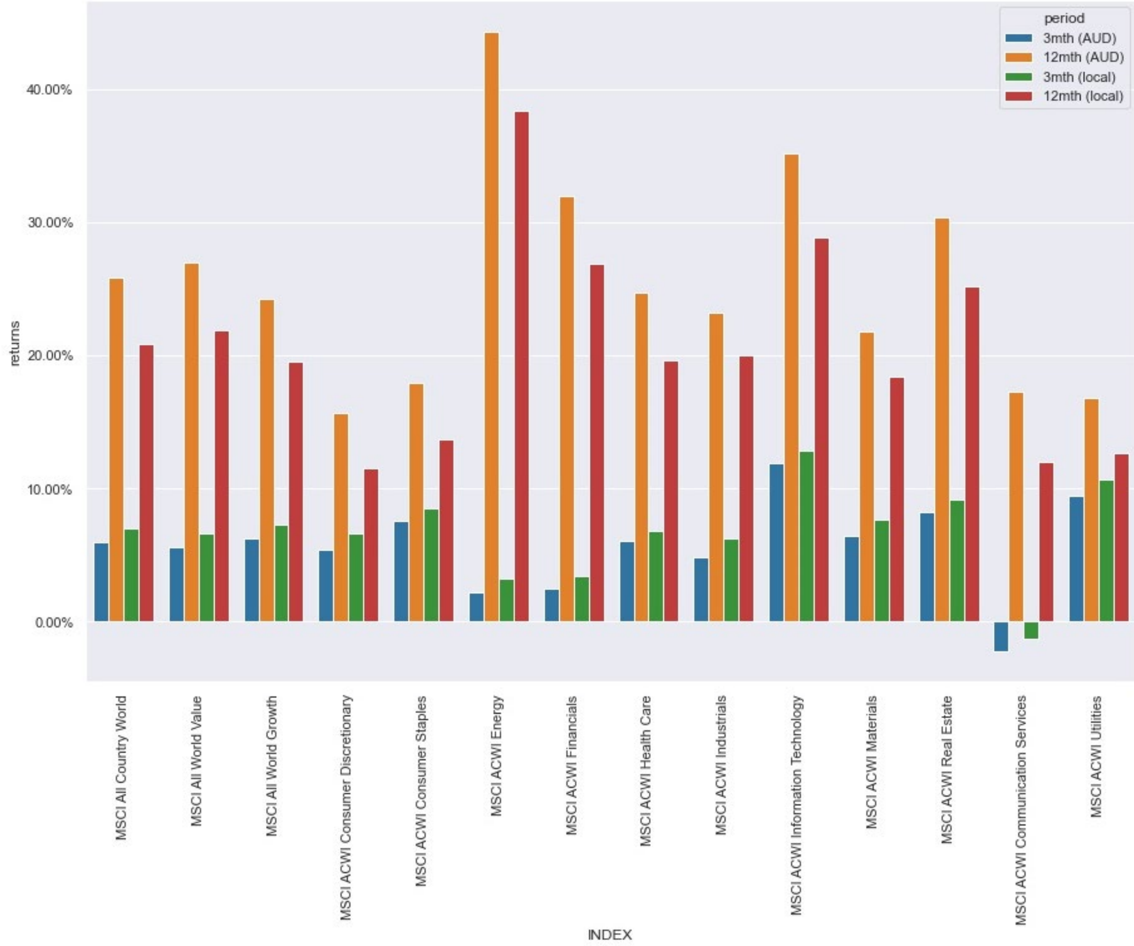
[4] Source: FactSet and Realindex

Chart 3: Selected Commodity Returns[5]



[5]Source: FactSet and Realindex

Chart 4: MSCI ACWI index, style and sector returns[6]



[6] Source: FactSet and Realindex

Chart 5: MSCI EM index, style and sector returns[7]

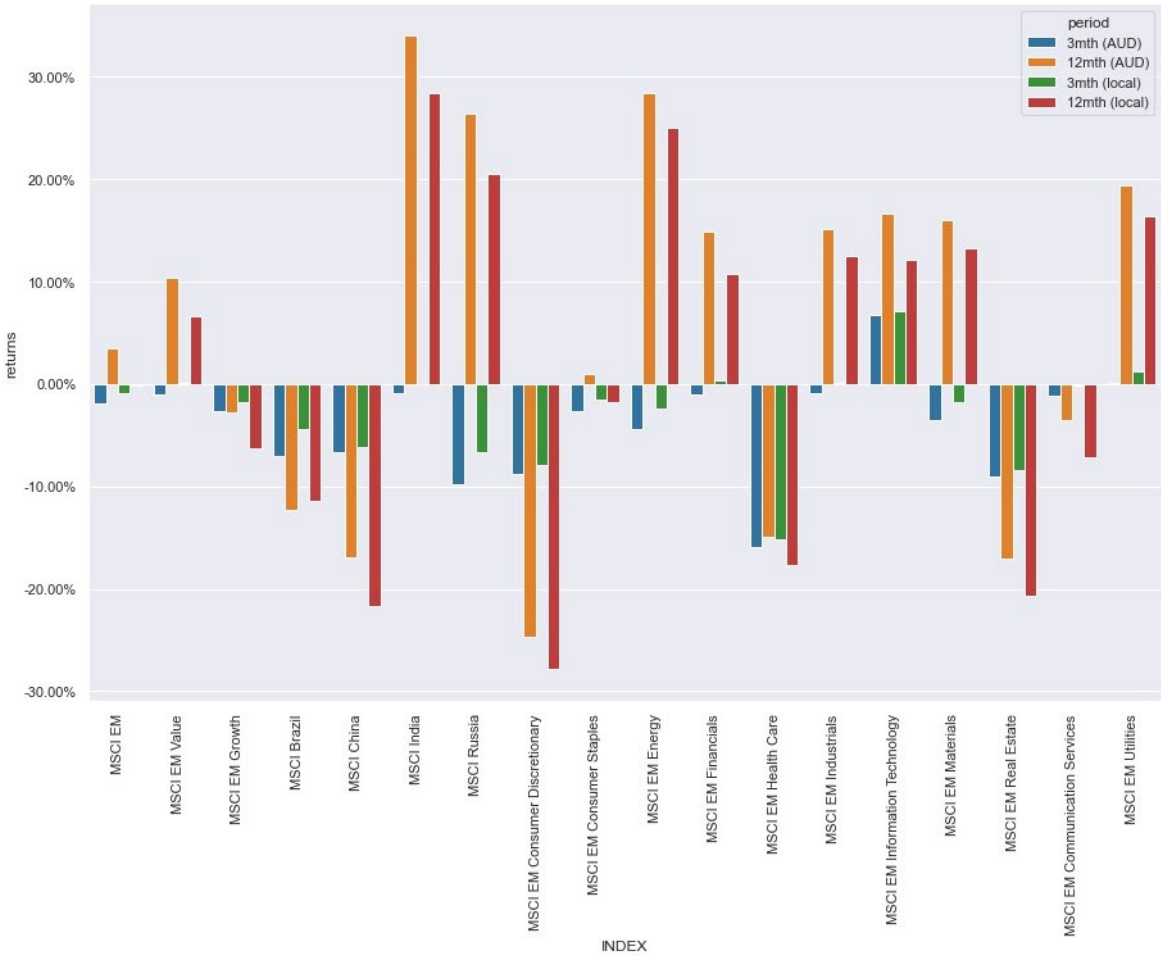
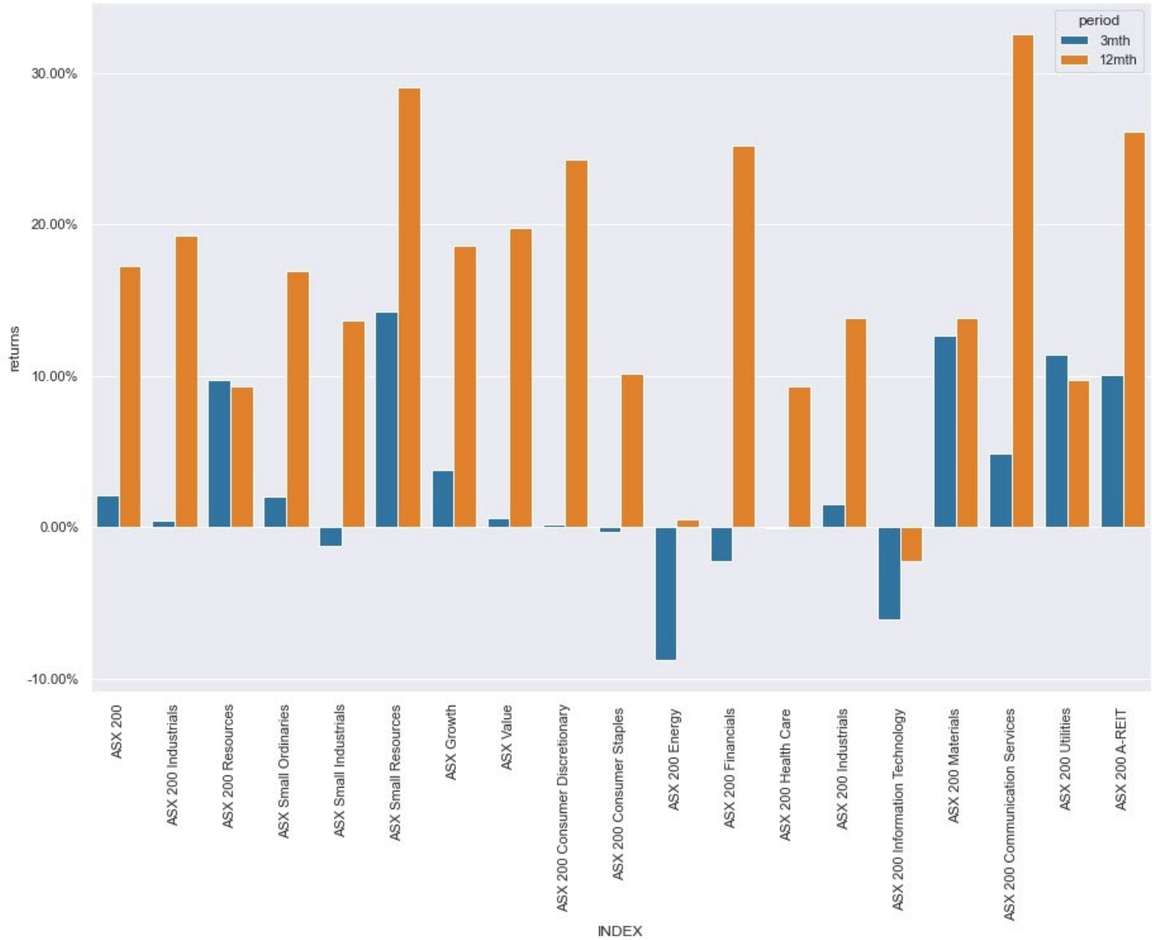


Chart 6: S&P ASX index, style and sector returns[8]



[8]Source: FactSet and Realindex

A few sample stocks and sectors:

Chart 7 shows the price moves of a sample of stocks and sectors for 2021:

Panel A: Apple ran up very strongly during 2021, reaching a price of over USD180 late in the year. Early in 2022 it briefly became the first company to have its listed market cap over USD 3 trillion. Our Global funds own the stock (although at a much lower weight than cap weighted indices) – while it is expensive it does have significant cash flows and earnings.

Despite this, we can also see that its earnings per share has trended upwards during 2021, which has meant that the ratio of Price to Earnings (last twelve months) has actually fallen.

Panel B: Early in 2021, Gamestop shot to fame as the favourite “meme” stock, spiking dramatically in late January to briefly touch over USD400 intraday. The highly publicised battle between hedge funds (who had shorted the stock) and retail investors protesting against hedge fund dominance (among other things) created this price move. Realindex owned Gamestop in our Developed Market Small Cap strategy and in our Global strategy. The dramatic surge in price created a contribution to active risk that was too large, and deviated too far from the core thematic of these strategies, so portfolio managers sold the position back to its core weight as the stock neared its peak.

Interestingly, the company has endeavoured to reinvent itself, and its price stayed above $USD150 for the remainder of the year. It has decreased its leverage, improving its tangible book value. Paying down debt has meant that its cash flow per share has fallen, and was reported a small negative by the end of the year

Panel C: During the pandemic, the performance of the Developed Market HealthCare sector was unsurprisingly very strong. Strong upwards reversals in March and November appear to coincide with the emergence of the Delta and Omicron variants of COVID. Sales growth and EPS growth remain strong, despite rolling off high numbers in 2020. The sector has become some cheaper (measured as PE) during the year.

Panel D: Like Developed Market HealthCare, the Information technology sector had a stellar 2021. Three sharp sell-offs – in March, May and October – reversed very quickly. The mega cap US stocks in this sector had very strong years, underlying this.

Sales growth has been good but EPS growth has been very strong, as would be expected with the dramatically increased purchasing of COVID vaccines and other health related goods and services. The sector PE remains very high.

Panel E: On the back of the first wave of recovery from COVID, and the stimulus packages that were implemented or flagged, global oil prices trended up strongly. In emerging markets, energy was one of the few sectors with positive performance for the year. This run up has tracked USD oil prices very closely.

Panel F: Australian small cap resource stocks ran very hard after a flat start to the year. The oil price run contributed to this, and demand for copper and iron ore and other metals also drove up prices. Precious metals like gold and silver were flat during the year, so the oft-quoted predominance of small cap gold miners in the sector did not drive it in 2021.

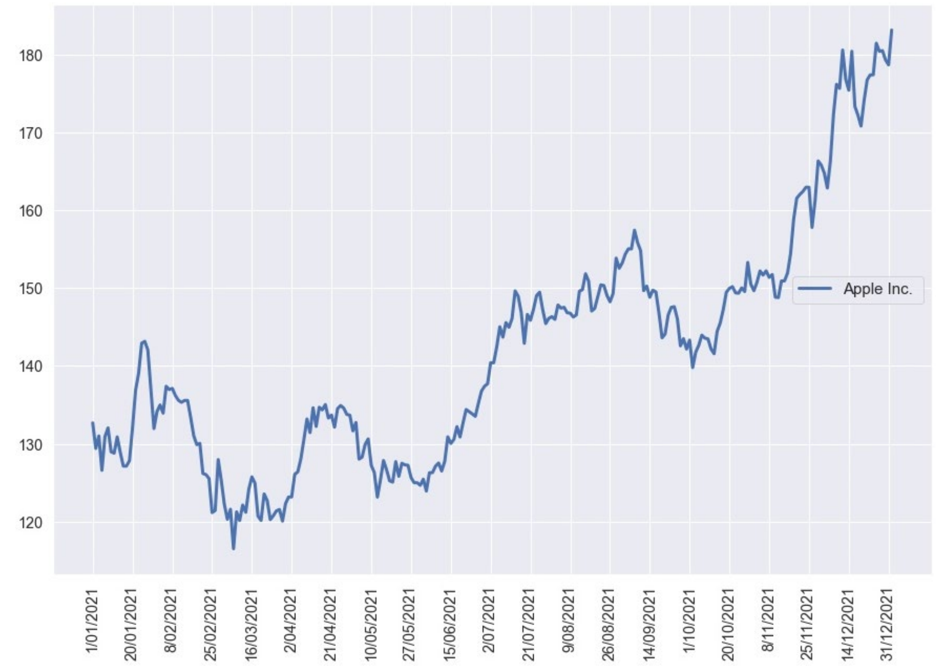
Panel G: After becoming one of the largest stocks in the emerging markets during 2020, Alibaba suffered a number of setbacks during 2021, most notably the well-publicised fall from grace of its CEO and founder, Jack Ma. It has approximately halved in value during the year, despite the Emerging Markets information technology sector actually having a positive return for the year. EPS remained solid, so its PE contracted significantly as the price fell.

Panel H: The ongoing saga of the huge domestic property development and management firm China Evergrande meant that it was almost never out of the headlines in 2021. It often neared default on its loans during 2021, and with no apparent bailout from Chinese federal authorities, the stock fell to all-time lows. Default was formally declared by debt providers and ratings agencies early in December 2021. The knock-on effects of the company's default, in terms of property prices in China and to debt providers, is potentially large.

As expected, PE fell sharply as price fell. EPS actually ticked up in the last quarter, and leverage fell sharply as debt was restructured, but interest cover (EBIT/Interest Expense) fell from about 0.7 to about 0.35 in mid-year, highlighting the elevated risk of default.

Chart 7: 2021 prices for a sample of sectors and stocks[9]

Panel A: Apple (USD)

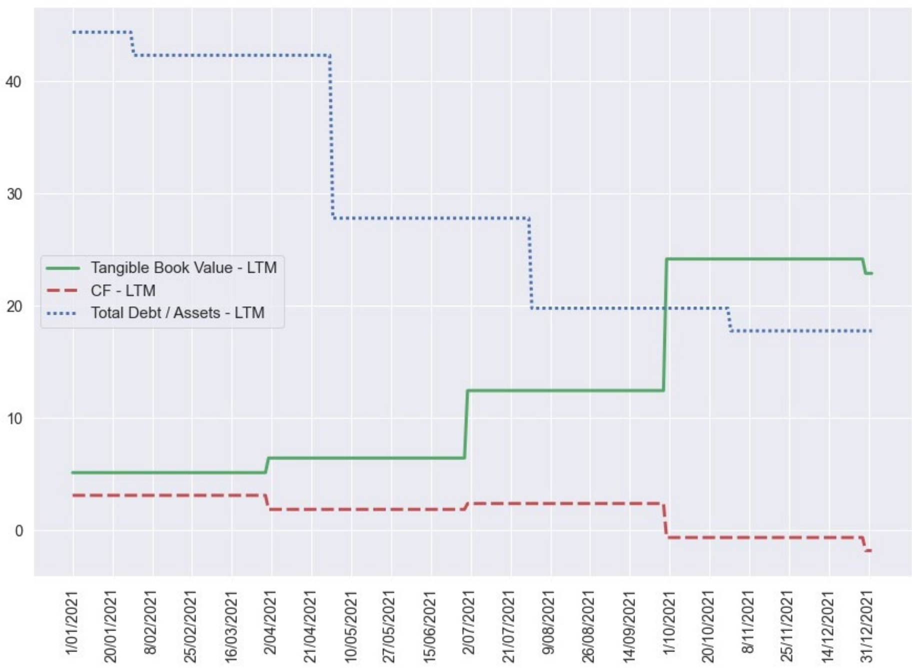


[9] Source: FactSet and Realindex

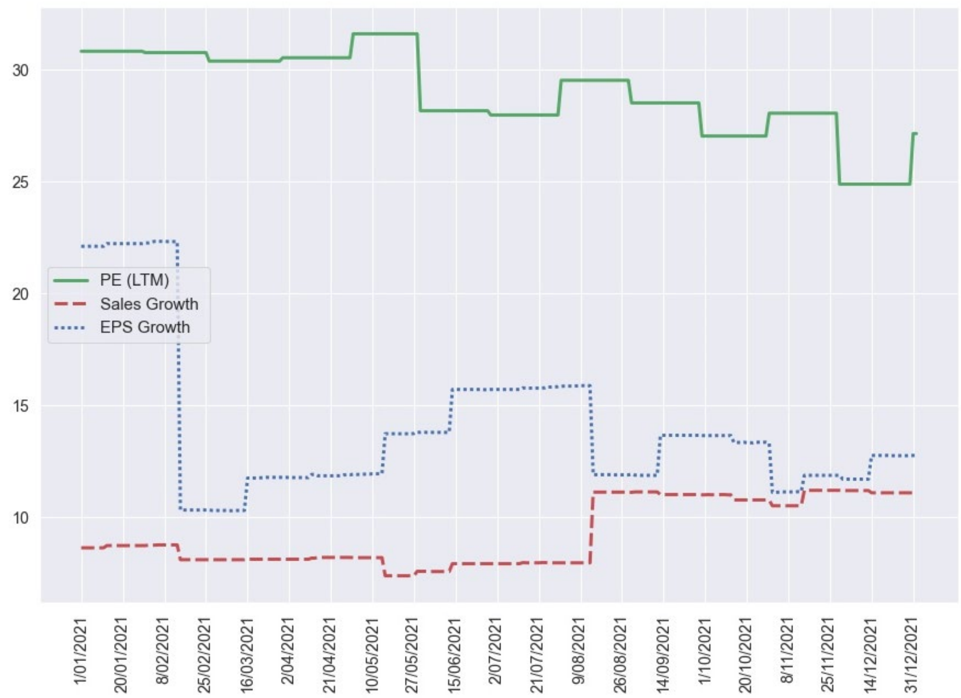
Panel B: Gamestop (USD)

Source: Realindex, Factset, MSCI

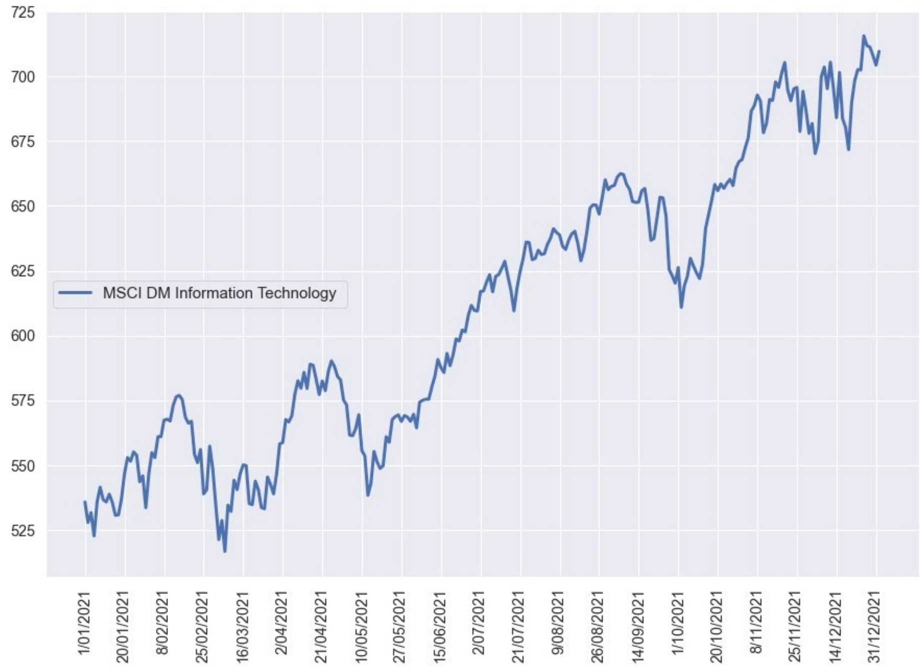
Realindex reduced exposure here

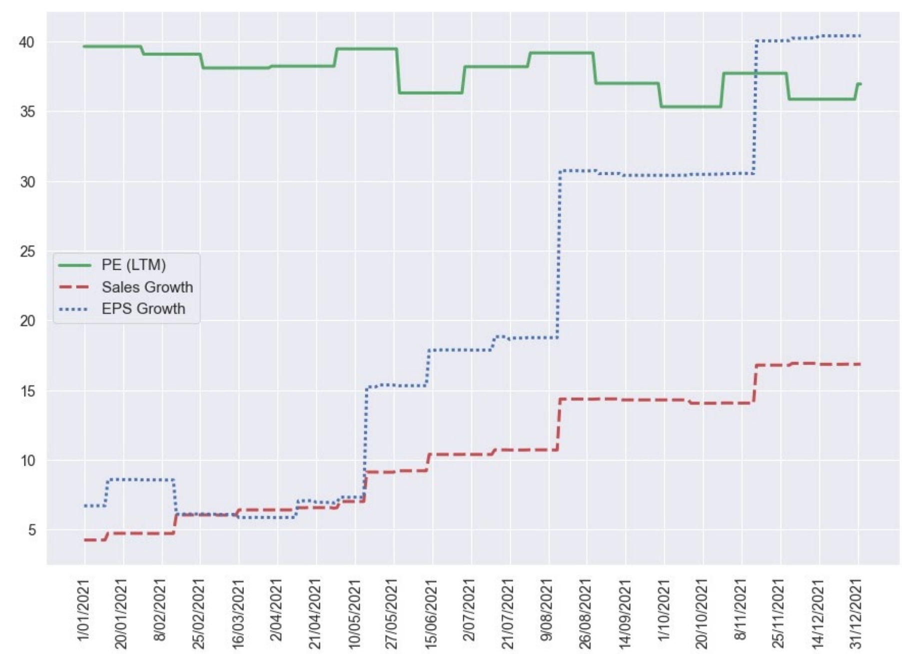


Panel C: DM Health Care (local currency)

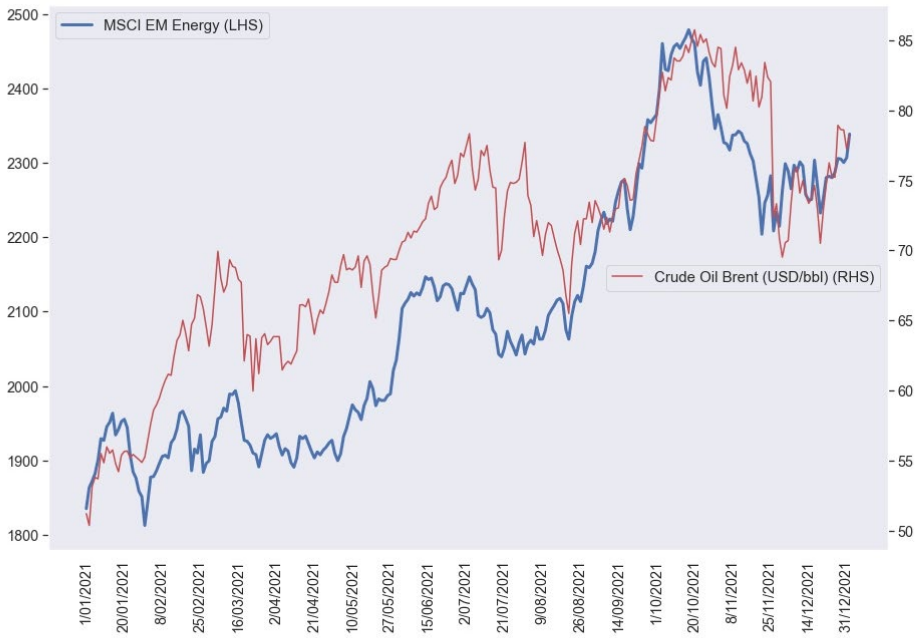


Panel D: DM Information Technology (local currency)

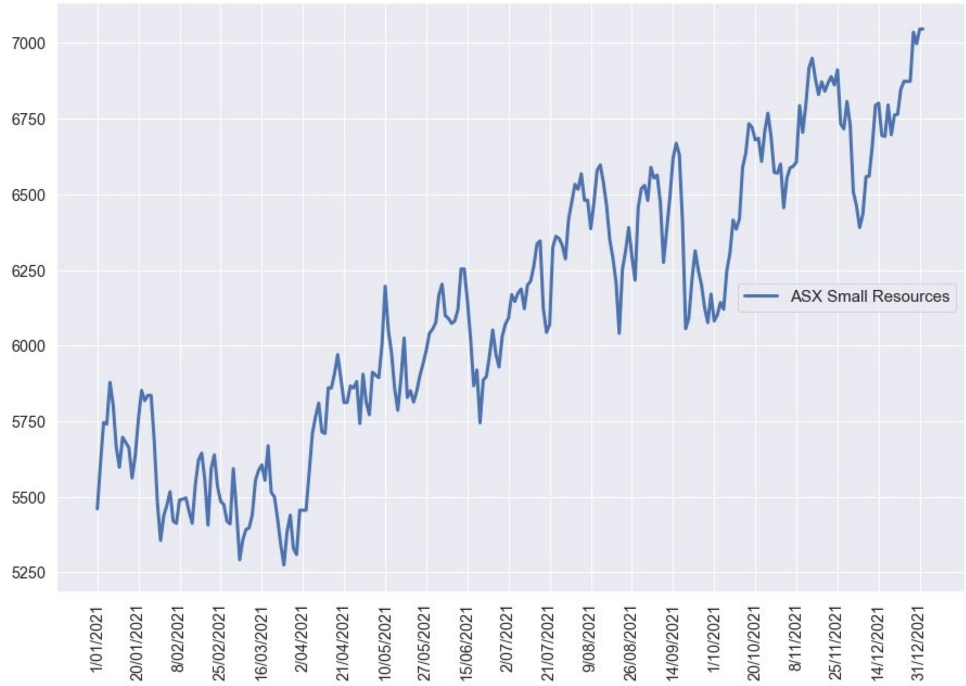




Panel E: EM Energy (local currency)

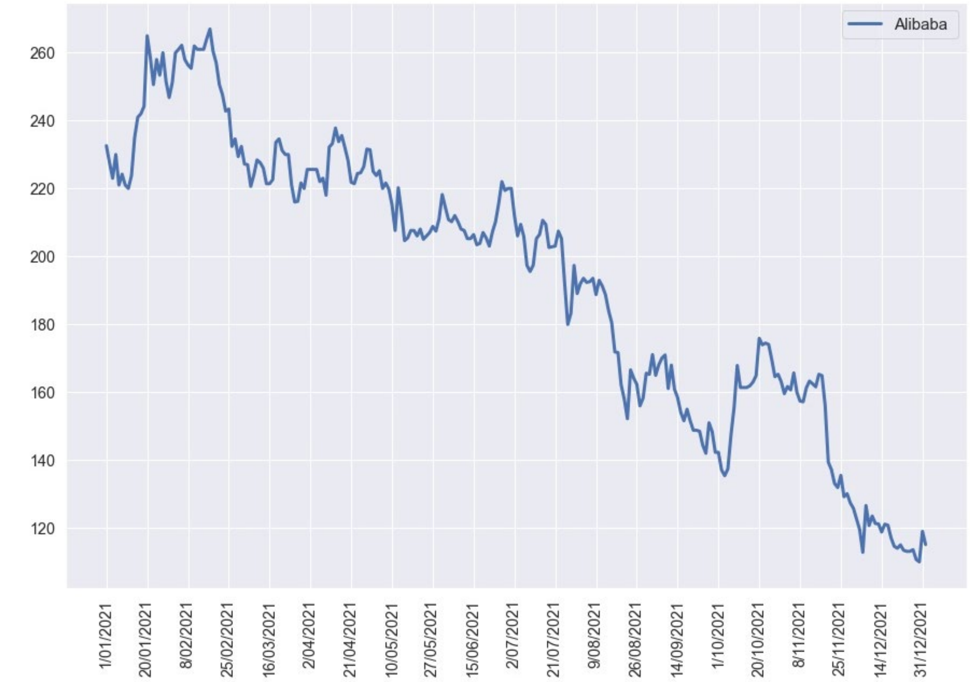


Panel F: AUSML Resources (AUD)

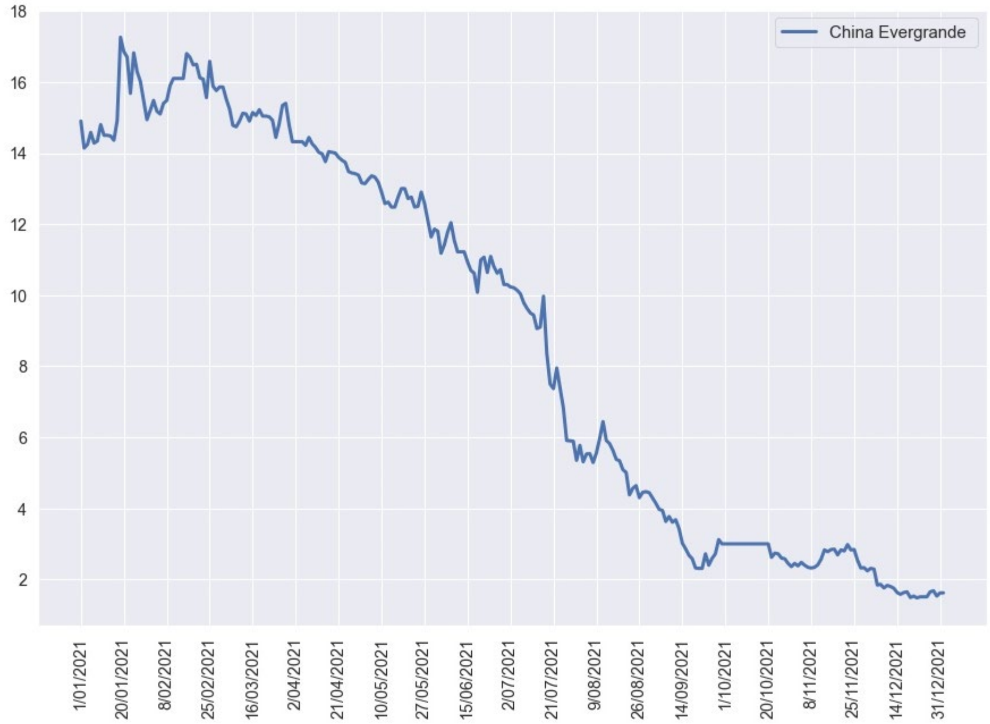


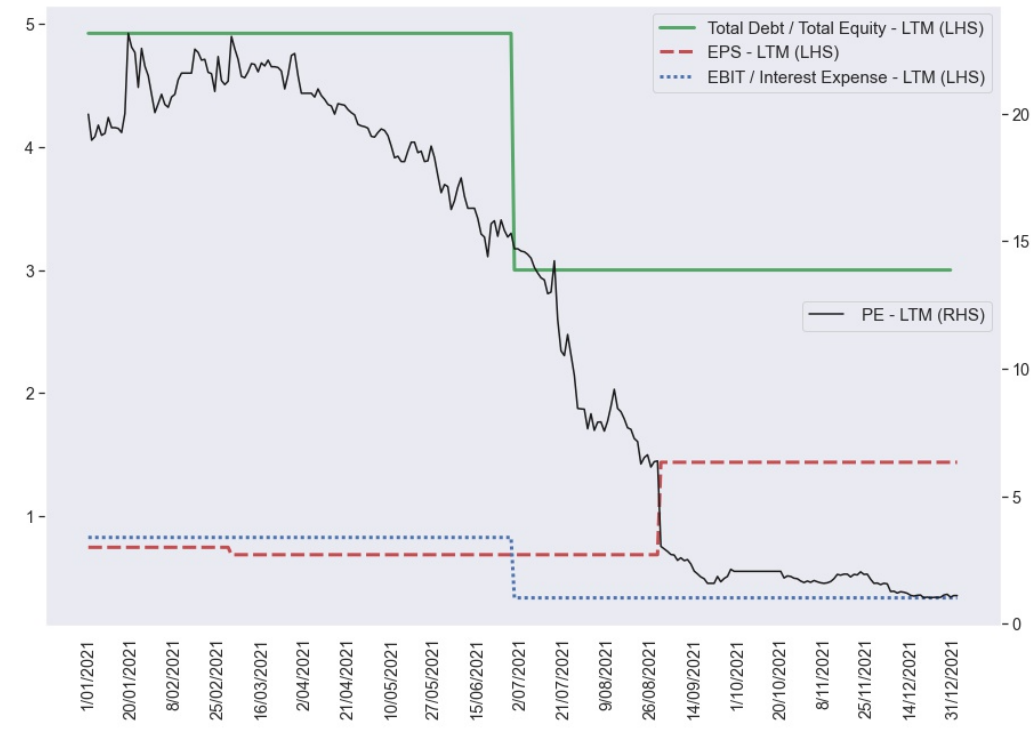
Source: Realindex, Factset, MSCI

Panel G: Alibaba (HKD)



Panel H: Evergrande (HKD)





Source: Realindex, Factset, MSCI

Volatility

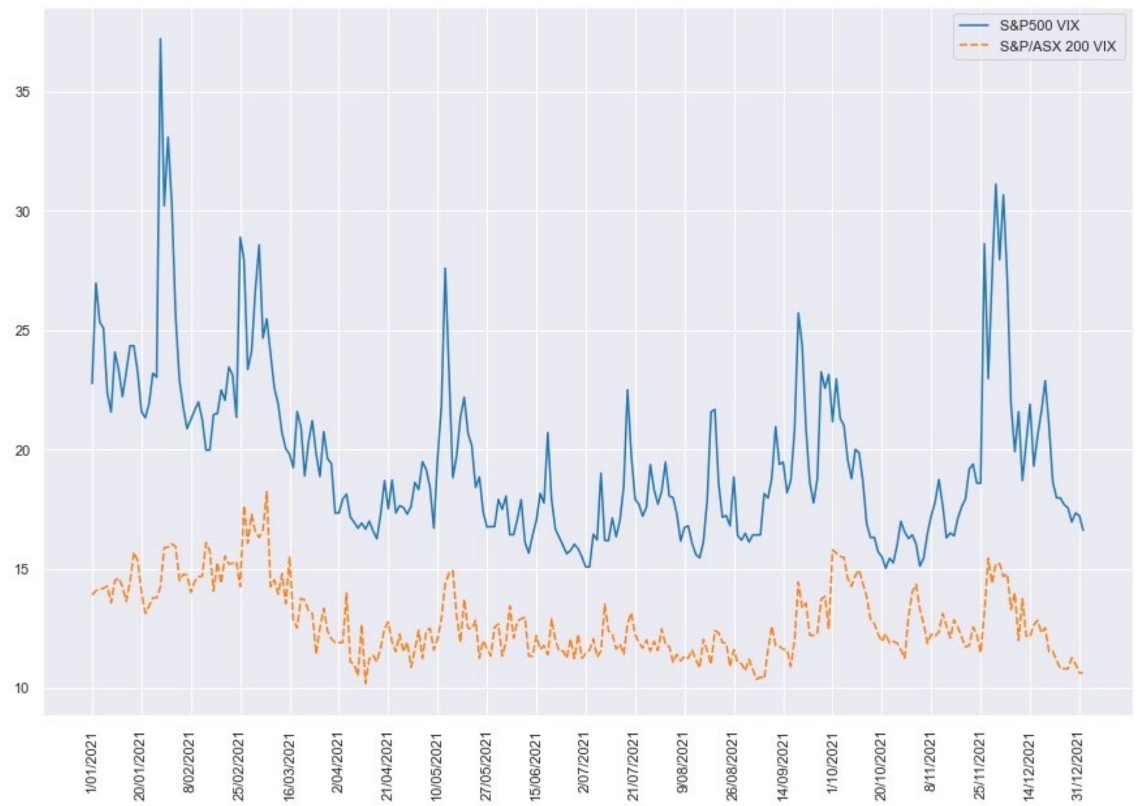
Chart 8 below shows the volatility index (VIX) for the S&P500 and the ASX over 2021. The VIX is a composite measure of volatility “implied” or “backed out” of index option prices and averaged across times to maturity and strike prices. Originally proposed by Brenner and Galai in the Financial Analysts Journal in 1989, it was formalised by Professor Robert Whaley on behalf of the CBOE in 1992 and 1993. The VIX index is intended to measure the market’s risk expectations, and represents a “best guess” of the expected annualised volatility of the market.

The US VIX index was significantly higher than the ASX VIX during the year, although pre COVID this was not the case. The difference is due to higher inflation and COVID risk expectations, and an increase in the volatility of expensive mega cap stocks like Tesla and Amazon.

In the US, an initial spike in volatility in late January coincided with the meme stock controversy, as discussed above. From here, volatility moderated and trended down slowly until flattening off at around 18 in August. It then fluctuated markedly, jumping in October with oil price and interest rate news, and culminating in a significant spike in early December as the Omicron variant started to spread. Since then it has trended back down to finish near its lows for the year.

The ASX VIX has shown roughly the same pattern but has been stable at around 12 for most of the middle of the year. Spikes in mid-October and early October coincided with oil price spikes, threats of tapering and Omicron, in the same way as the US VIX. St the end of 2021 it was trading near its annual low of 11.

Chart 8: Volatility: S&P500 VIX and ASX VIX[10]



[10]Source: FactSet and Realindex

Factor performance and drivers – value, growth in particular

Chart 9 gives the 3 month and 12 month of four different style indices for MSCI ACWI, MSCI DM and MSCI EM universes. The style indices given here are Value, Growth, Minimum Volatility and Momentum.[11] The returns are given in AUD and in local currency. Chart 10 below that gives the time series of the local currency version of Value and Growth for the year, for ACWI, EM and Australian universes

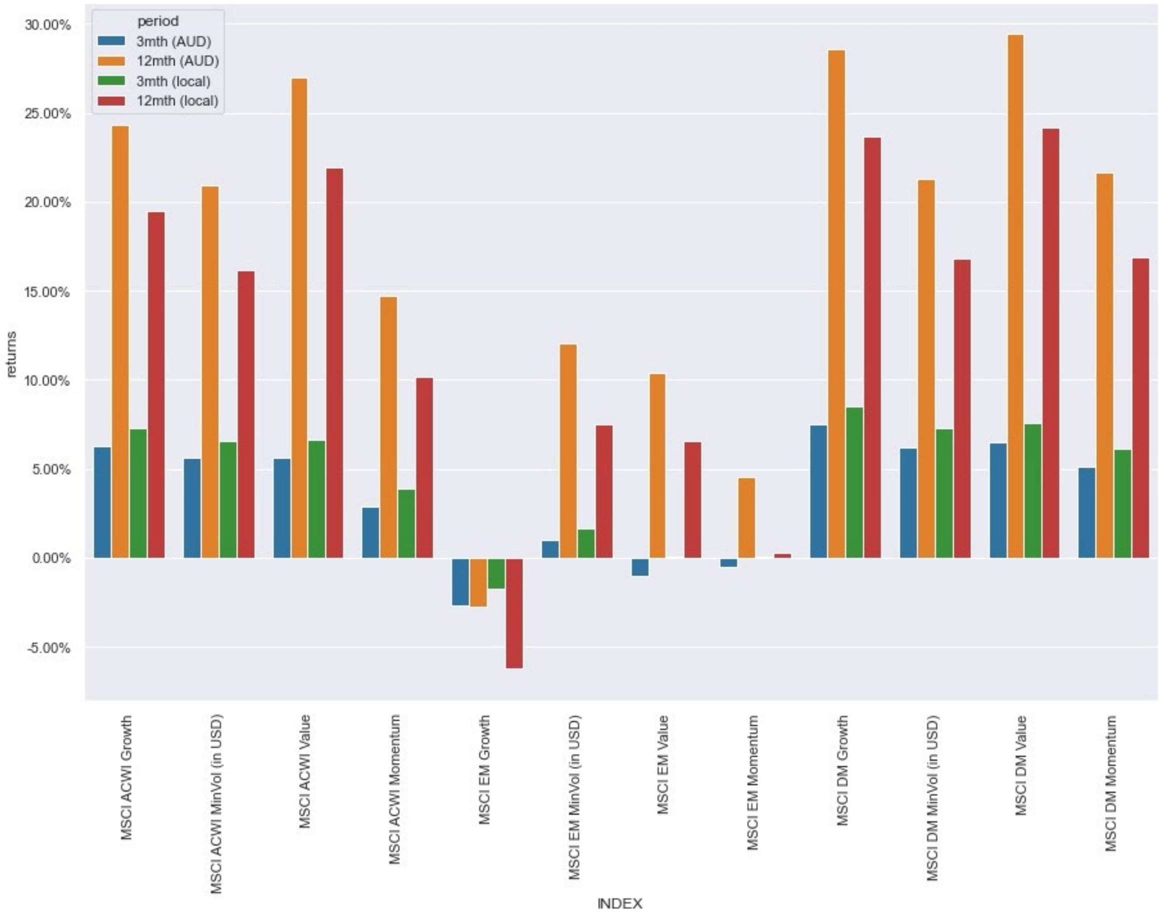
The most striking parts of the first chart are the impact of the falling AUD (as noted above) and the poor performance of emerging markets, especially growth and momentum. In the developed markets, these were all strong, with Value slightly stronger then Growth, but with good positive returns to minimum volatility and to momentum. It was these that drove the Global (ACWI) returns. While emerging markets Value performance was roughly neutral in AUD terms, Growth was down.

We can see from the second chart that the Value to Growth dynamic was a tale of two halves for ACWI and Australia. While we can see that the bulk of the positive returns for the broad developed markets came in the first 6 months of the year, the last 3 months was still positive. Value for ACWI and Australia were very strong until about June, and tracked sideways to slightly upwards for the remainder of the year. Growth for ACWI started slowly and then strengthened as the year went on.

EM Growth started strongly and then fell away steadily for the rest of the year, while EM Value had a slow but positive start to the year and then was flat for the remainder.

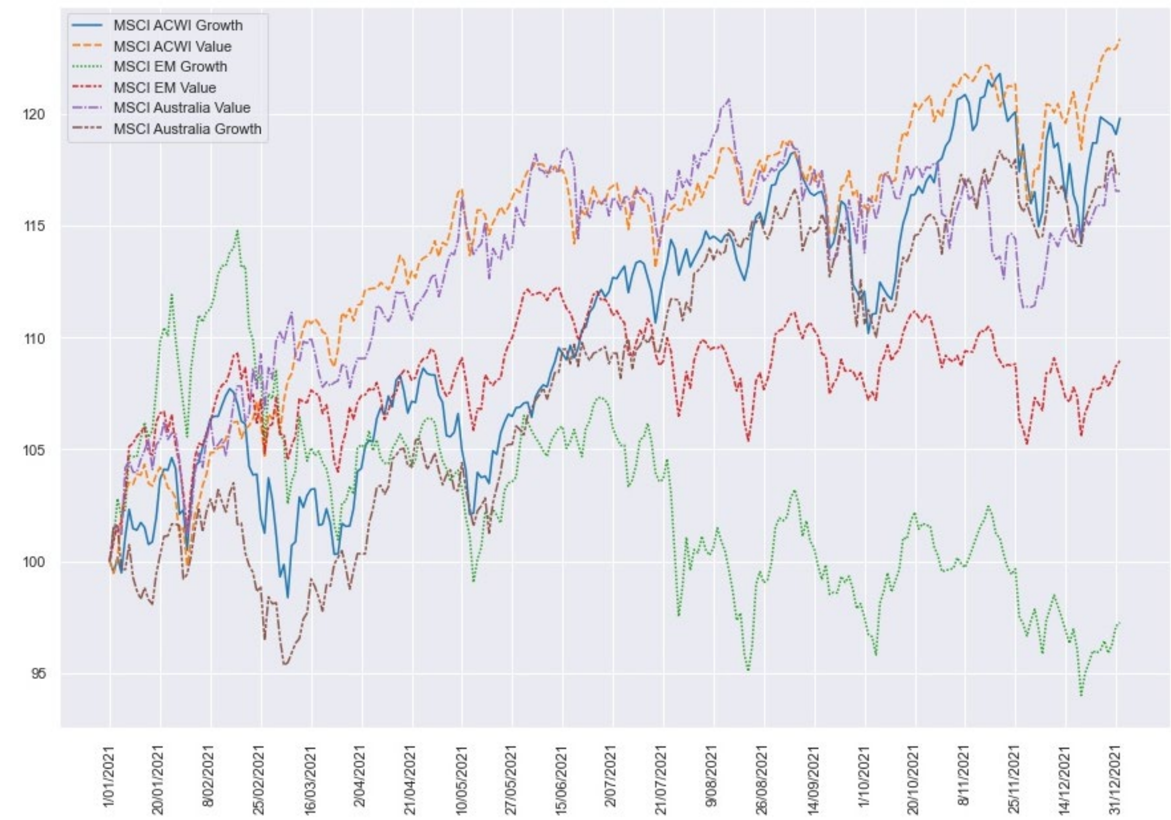
[11] For details on these index constructions, see https://www.msci.com/index-methodology

Chart 9: Selected Style Indices[12]



[12] Source: FactSet and Realindex

Chart 10: Evolution of Value and Growth for the year[13]



[13] Source: FactSet and Realindex

2 Major themes for 2021

A An astonishing year for ETF flows

The flows into index funds and ETFs has continued unabated during 2021. In fact, new flow records were set regularly. A little more than USD900bn flowed into ETFs during the year, with December setting the al time monthly flow record with USD99.4bn of inflows.[14]

The Table below – from ETF.com – shows that two major trends were in play:

Continued huge flows of funds into ETFs

Rotation away from specific sector or style ETFs (corporate or treasury bonds, gold, minimum volatility, inflation hedging and so on) towards broad market ETFs (S&P 500, Developed Markets, and the composite bond index)

Table 1: US ETF flows in 2021

Flows for 01/01/2021 - 01/03/2022

Top 10 Creations (All ETFs)

Ticker	Fund Name	Net Flows*	Details
VOO	Vanguard S&P 500 ETF	46,908.30	
VTI	Vanguard Total Stock Market ETF	44,572.62	
SPY	SPDR S&P 500 ETF Trust	43,453.66	
IVV	iShares Core S&P 500 ETF	31,009.65	
QQQ	Invesco QQQ Trust	22,607.16	
BND	Vanguard Total Bond Market ETF	18,898.46	
VEA	Vanguard FTSE Developed Markets ETF	15,456.32	
VTV	Vanguard Value ETF	15,360.57	
IEFA	iShares Core MSCI EAFE ETF	13,773.91	
BSV	Vanguard Short-Term Bond ETF	13,459.45	

Top 10 Redemptions (All ETFs)

Ticker	Fund Name	Net Flows*	Details
LQD	iShares iBoxx USD Investment Grade Corporate Bond ETF	-14,209.24	
GLD	SPDR Gold Trust	-10,776.62	
USMV	iShares MSCI USA Min Vol Factor ETF	-7,891.52	
SHV	iShares Short Treasury Bond ETF	-4,649.69	
HYG	iShares iBoxx USD High Yield Corporate Bond ETF	-4,041.01	
EFAV	iShares MSCI EAFE Min Vol Factor ETF	-2,874.52	
JNK	SPDR Bloomberg High Yield Bond ETF	-2,863.88	
USO	United States Oil Fund LP	-2,853.33	
EWY	iShares MSCI South Korea ETF	-2,274.16	
IWF	iShares Russell 1000 Growth ETF	-1,903.65	

* Net Flows in USD Millions

Data Powered by FACTSET

This data is just for the US. Global flows have also been very strong. More than USD1.1tn flowed into ETFs globally during 2021, the bulk of it into passive funds (USD830bn, compared with USD250bn into active ETFs[15]). ETFs now represent over USD10tn of assets under management.[16] This is up

[14] https://www.etf.com/sections/monthly-etf-flows/etf-monthly-fund-flows-december-2021

[15] https://insights.issgovernance.com/posts/iss-market-intelligence-fund-flows-roar-back-in-2021/

[16] https://www.investordaily.com.au/markets/50283-etf-assets-surpass-us-10-trillion-globally

from about USD5tn in 2018, and less than USD8tn at the end of 2020. The same story has been seen in Australia, with ETF assets under management in Australia now over AUD130bn[17], which is an increase of over 70% during 2021.

On the flip side of this, fund flows have been out of active funds as well. Much of this has been related to poor performance, with less than 1 in 5 active managed US mutual funds beating the benchmark S&P500 during the year. [18] Only 1 in 6 growth funds beat the benchmark, but more than 50% of value managers capitalised on the return of the Value style by beating the same broad benchmark.

Among the most high profile managers to see outflows was AQR, the long-time darling of style investing.[19] After hitting USD226bn under manager in 2018, outflows have dropped this to USD137bn by November 2021.[20] At the same time, markets have been up, which would have cushioned the outflows, but also demonstrates their scale.

The continued massive inflows to ETFs is forecast to slow, however.[21] Market are forecast to be weaker, after a very strong period, and ETF inflows are highly correlated (with a lag) with market moves. However, the dual ETF flow drivers of lower fees and ESG exposure are still expected to continue to support the industry inflows.[22]

B The Role of YFYS in Australia

Australia has seen a dramatic push to standardisation of fund performance and benchmarks, driven largely by the Federal government. Known as Your Future Your Super (YFYS), it has developed a regime which:

Strictly standardises the benchmarks used for investing within and across asset classes.

Penalises superannuation funds for underperformance, with the threat of cessation of flows and forced amalgamation among the more notable threats

Incentivises a move away from active management to passive, and away from asset classes that have more diverse or less measurable performance

Incentivises a move away from alternative investment theses (e.g., non-cap weighted or unlisted). Many opportunities to add significant value to portfolios could potentially be lost here – for example, the recent bounce back of the Value style in equities is hard to capture in a strict cap-weighted benchmark framework.

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17 https://www.moneymag.com.au/2021-record-year-etfs, https://insights.issgovernance.com/posts/iss-market-intelligence-fund-flows-roar-back-in-2021/

18 https://www.afr.com/markets/equity-markets/fund-managers-again-wrongfooted-by-big-tech-20220104-p59lqt

19 https://www.ft.com/content/c80a5d99-57af-4dc3-97ba-8c620d46eb72

20 https://www.ai-cio.com/news/quant-hedge-fund-icon-aqr-cuts-back-as-investors-exit/

21 https://www.ft.com/content/499c14ea-7c82-45e8-aab2-fa8018d32dae

22 https://www.cnbc.com/2021/11/26/three-catalysts-are-driving-off-the-charts-inflows-into-etfs-schwab.html

The move to YFYS has – to put it mildly – been the subject of much controversy. Realindex has conducted significant research on this, both for individual clients and to add to the public debate.[23]

By the end of 2021, most of the significant changes had been flagged or implemented, and funds which were potentially near or below the performance hurdles were addressing the problems with changes to manager line-ups, risk tolerance and investment style.

C ESG activity and flows

With the backdrop of COVID, one would be forgiven for thinking that ESG issues have taken a back seat in 2021. This is far from the truth. For example, a very substantial move towards green energy, underway for some time, has if anything accelerated during the year.[24]

In an investment sense, this has manifested itself in new fund openings, fund flows and much more aggressive corporate engagement on issues like carbon generation, modern slavery and other social issues. If anything, ESG has become a central and concentrated theme.[25] As much as USD650bn has flowed into ESG aligned funds during 2021, a 15% increase on 2020 and almost double the flows in 2019. At an individual stock level, indices based on ESG issues have had a stronger year than the broader benchmarks, although the oil price moves during the year have counteracted this somewhat. Chart 11 below shows this (indices are total return and in local currency).

Finally, data providers like Sustainalytics, MSCI, ICC, SASB have broadened and strengthened their data provision services, although disagreement over metrics and scores still abounds. Realindex, and its parent company First Sentier Investors, have a very strong commitment to ESG issues and collecting and using the best available data in this space, and so we spend a great deal of our time understanding and evaluating the various providers and their strengths and weaknesses.

The biggest event in ESG this year was the COP26 conference held in Glasgow in November 2021. This helped to make net zero commitments (by countries, companies, asset owners and asset managers) one of the major themes for ESG for 2021. By the end of COP26 there had been over 140 countries pledge to reach net zero, representing over 90% of global GDP. There has also been a commitment by all 197 counties at the conference to reduce the use of coal and fossil fuel subsides in their energy mix. This has helped to continue to build the momentum, investment and research into new 'green energy' solutions.

Crucial to the conference was not just commitments by countries by also the private sector. More than 450 banks, asset managers, insurers and other firms which control over US$130 trillion formed the Glasgow, Financial Alliance for Net Zero[26] which is committed to climate change action and net zero targets.

[23] https://www.firstsentierinvestors.com.au/au/en/institutional/insights/latest-insights/superannuation-underperformance-your-future-your-super.html
[24] https://www.iea.org/reports/renewables-2021
[25] https://www.reuters.com/markets/us/how-2021-became-year-esg-investing-2021-12-23/
[26] https://www.gfanzero.com/

Chart 11: MSCI ACWI and ACWI ESG indices in 2021[27]

[27] Source: FactSet and Realindex

D The Ongoing Economic Story

Inflation and causes

Probably the largest economic story in the second half of 2021 was the rise in inflation, especially in the US.

Charts 12 and 13 below show recent realised and forecast inflation. In the US, annualised monthly inflation rose from under 2% in January to around 6% in December. This rise has been seen in other developed economics as well, notably the Euro region and the UK. However, Japan, Australia and China have not seen the same dramatic increases.

Three interesting points to note here:

> Inflation into 2022 and onwards is forecast to be higher than it has been over the last year or two. This is a fairly universal forecast – all countries in developed and emerging markets share it.
>
> Economies that have not seen the uptick in inflation in 2021 (e.g., Japan and China) are likely to see increased inflation in 2022. The other developed economies that have seen a strong uptick (US and UK in particular) are forecast to see inflation falling back from its current levels, although to rebase at a higher level than the recent past (as noted above).
>
> The period from late 2021 to early 2022 has seen a continuation of the increase in inflation and increases in interest rates on the back of this are now more likely than they were at the end of 2021. There is still no clarity from central bank policy makers, however.

Interestingly (not shown here) the RBA did not forecast Australian inflation to be very high in the near future, perhaps moving into the inflation control band of 2-3% but staying at the low end. This has meant (as of November 2021) that the RBA is indicating it is unlikely to lift interest rates in 2022, and perhaps even 2023, at least based on current evidence. *However, what transpires in 2022 is still uncertain, of course, and indications are that inflation is higher than anticipated and so interest rate rises are more likely than they were at the end of 2021.*

Chart 12: CPI Inflation over the last twenty years[28]

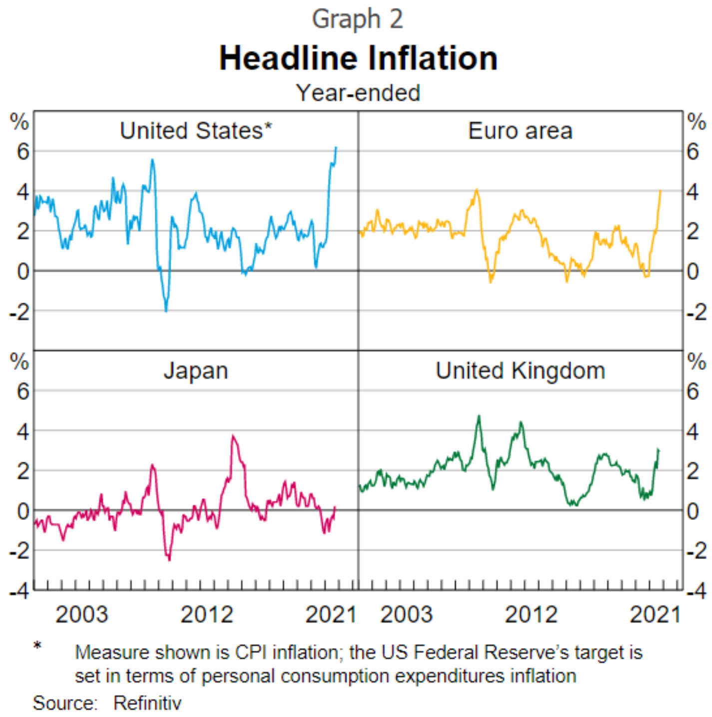
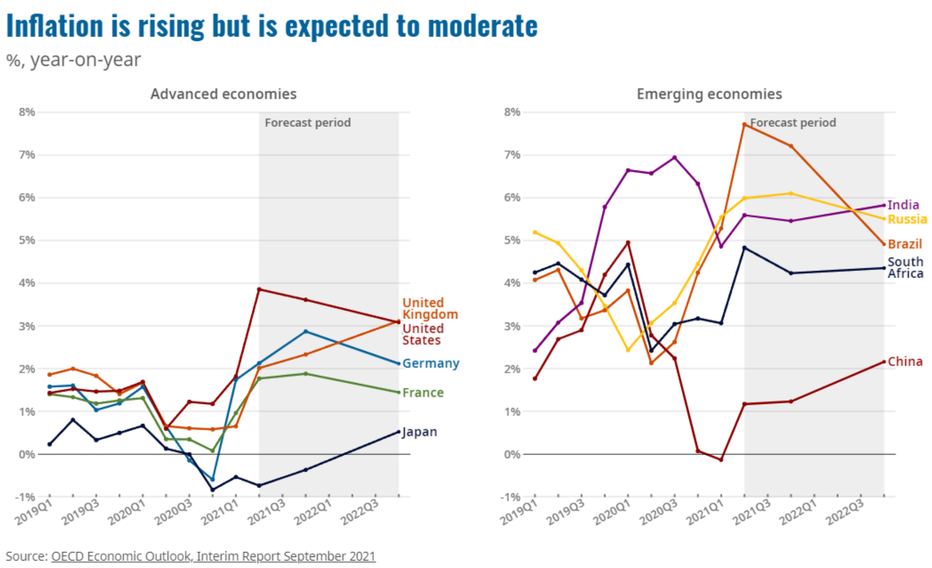


Chart 13: IMF Realised and Forecast Inflation in Developed and Emerging Economies[29]



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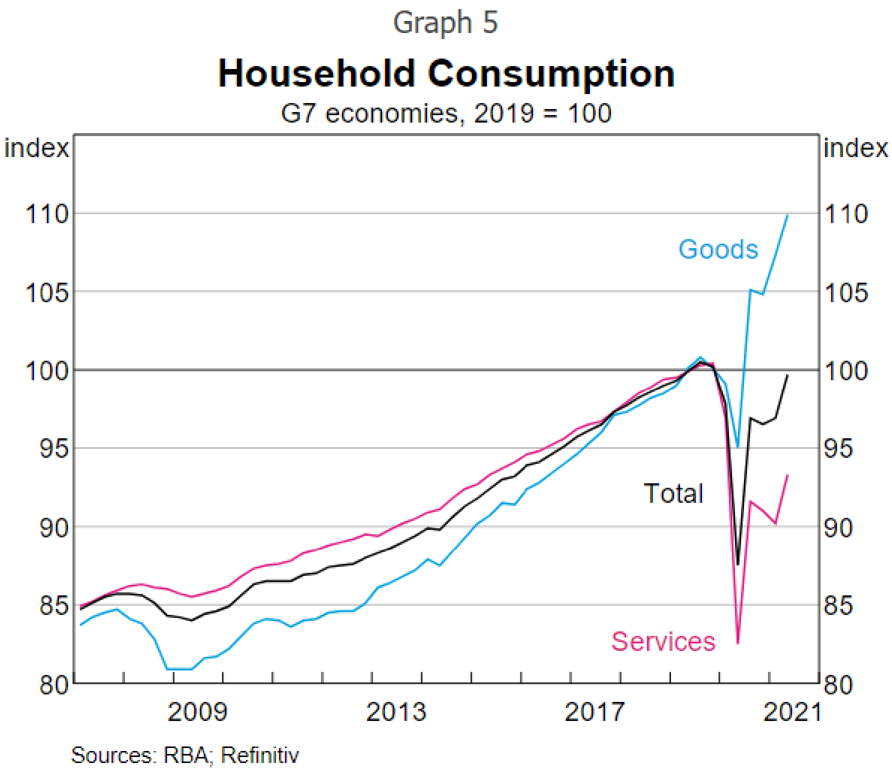
[28] From RBA presentation by Governor Philip Lowe, 16 November 2021

[29] From OECD Economic Outlook, September 2021

It seems that there are two central drivers of this increase in inflation during 2021. The first is as a direct result of the COVID pandemic – consumption has seen a major shift from services (e.g., education, travel) to goods. Chart 14 below shows this.

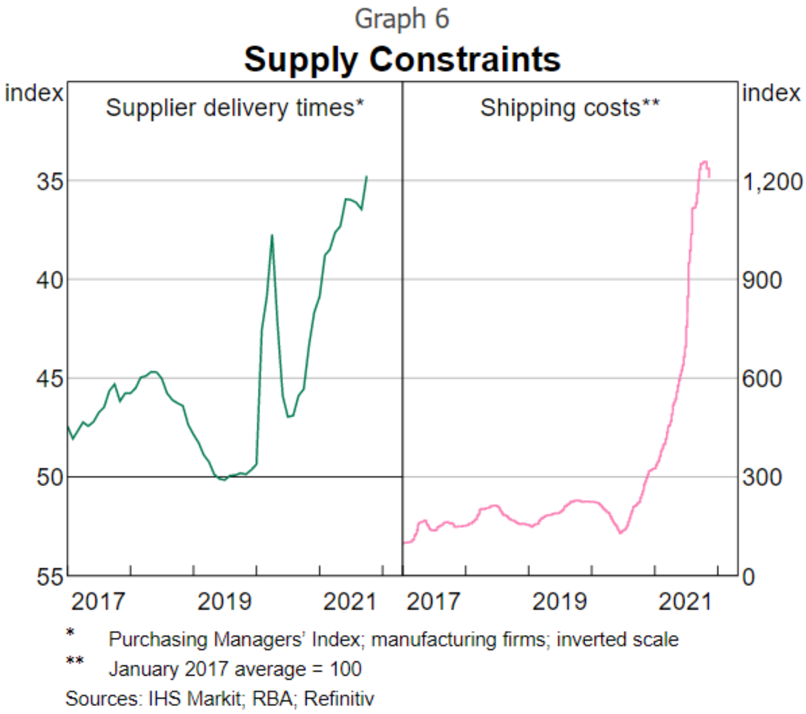
Chart 14: Household consumption pattern changes since the onset of COVID[30]



The second major driver is well known and has been discussed extensively (some might say *ad nauseum*) during 2021 – supply chain constraints and breakdowns. With the onset of COVID, global shipping and the movement of goods between countries has been severely restricted. In preventing or restricting the spread of COVID, the transport of vehicles, perishables, construction materials and many other goods has been affected by the closure of shipping and other transport like trucking.

[30] From RBA presentation by Governor Philip Lowe, 16 November 2021

***Chart 15: Increases delivery times and shipping costs since the onset of COVID*[31]**



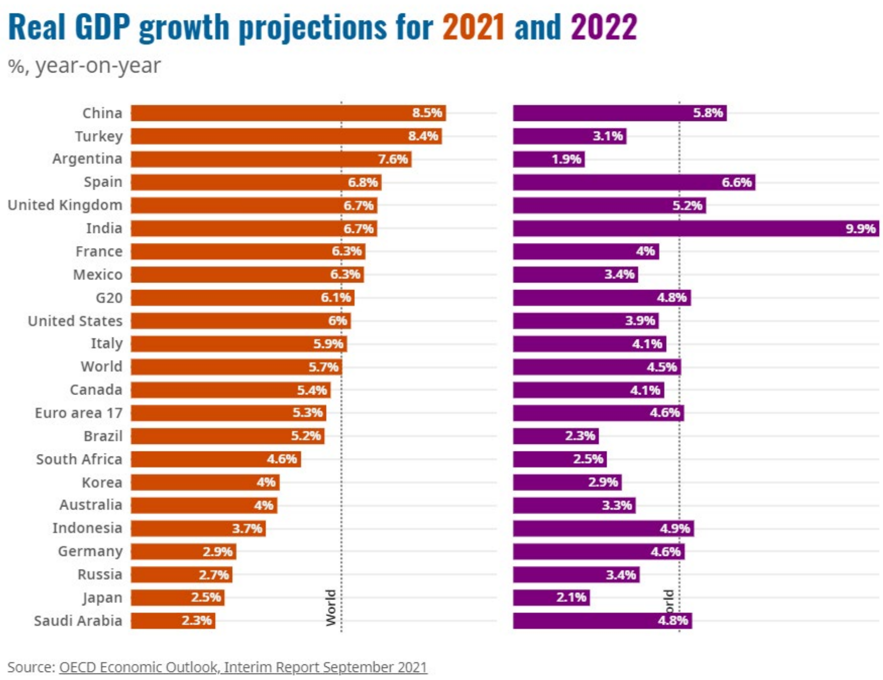
With inflation increasing (as discussed above), there are two further questions we should ask:

> Is this increase in inflation matched by economic growth, or is it foreshadowing a traditional wage-price spiral and the risk of stagflation?
>
> Will federal bodies tighten monetary policy as a result, to curb potentially runaway inflation?

Chart 16 below shows OECD GDP measurements for 2021 and forecasts for 2022. The rebound from the first economic slowdown due to COVID seems to have been very strong. GDP growth in 2021 (admittedly, year to date in September) was over 8% in China, and over 6% in the G20 countries. And while the growth is nowhere near as consistent, current OECD forecasts are optimistic, suggesting G2 growth of just under 5% and a fairly strong continuation of 2021 across the board.

[31] From RBA presentation by Governor Philip Lowe, 16 November 2021

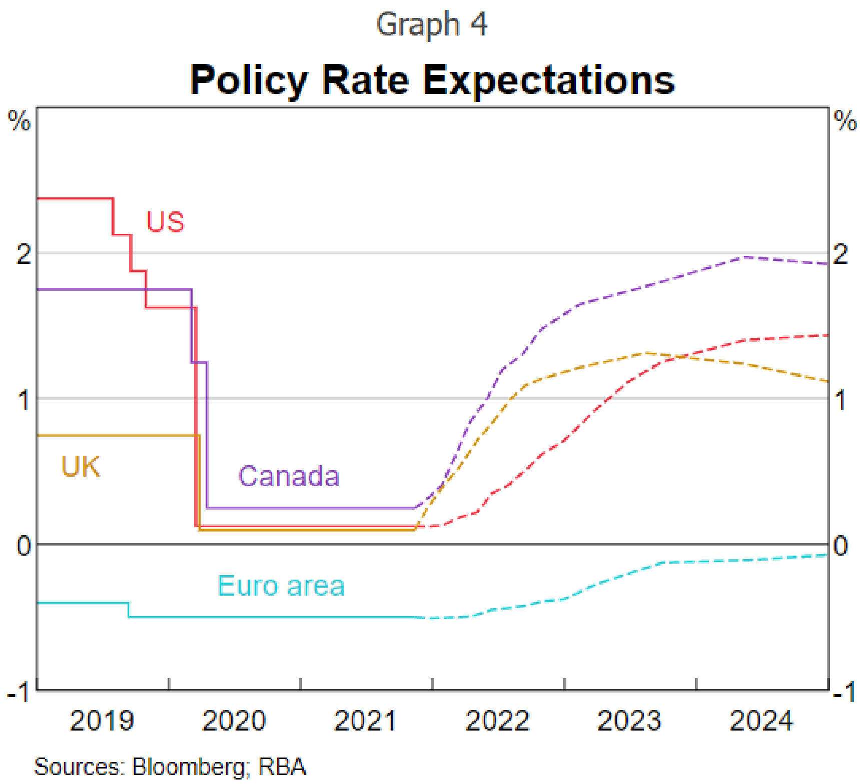
Chart 16: Realised and Forecast GDP Growth (from the OECD) in Developed and Emerging Economies[32]



Forecasts of increased interest rates in developed economies now abound. Indeed, the US has commenced its "tapering" program in November 2021[33], which is to say that it has started to reduce its program of asset repurchases. Further, the Bank of England finally started to raise rates in December 2021, lifting the bank rate by 0.15% and foreshadowing more to come. Many sell-side analysts and market pundits are predicting multiple interest rate rises in 2022. The danger, of course, is over-correction or misplaced constraints by central banks, leading to excessive restrictions on GDP growth and a slowing or reversal of the (currently) likely post-COVID rebound.

[32] From OECD Economic Outlook, September 2021
[33] https://www.reuters.com/business/federal-reserves-taper-how-does-it-work-2021-11-03/

Chart 17: Forecast policy rate changes[34]



[34] From RBA presentation by Governor Philip Lowe, 16 November 2021

3 Portfolios and Realindex

Realindex

How has the team held up? What have we achieved?

Investment management is fundamentally a people business, and we believe Realindex is very strongly built around a supportive people-based culture. While we always aim to achieve at our highest, we never try to do this at the expense of personal health and well-being. A culture like ours encourages curiosity and innovation too, which is of course a good result for everyone.

This year has been difficult for a few reasons but rewarding for others. The inability for us to properly socialise with each other, or to conduct face to face discussions regarding and with our clients, prospects, research and markets has naturally made the year more challenging. We all believe that off-the-cuff discussions and brainstorming is a critical part of any business, and we have had to manage this through e-meetings. Limiting these, to prevent us all becoming “zoombies” has been important.

That said, we have achieved a huge amount this year and are very proud of that. Responding to client requests and customisation, always at the front of our minds, has been conducted at the highest level again in 2021. Research agenda development, critical thought pieces and systems development have all been very strong again, giving us an excellent platform for 2022 and beyond. At the same time, making sure that team members (and clients) are healthy and managing the difficult times well has been a balancing act that we have achieved convincingly.

This is not to say that any of us is wishing for a return to lockdown or long-term work from home rules, but we have emerged stronger and better placed than ever.

What do we expect from Realindex for the future?

The coming year should see us

- consolidating our systems and platform development
- broadening our research agenda and pipeline
- continuing to develop our product and engagement mix.

The key issues of ownership and leverage of our systematic investment process will underlie these developments. Key expectations for 2022:

A return to better performance from the value factor driving good performance from our Value (accounting weighted) funds

Formal launch of our Global and Australian Diversified Alpha funds

A broadening of our alpha, portfolio and process research with new data sets and new tools developed in-house.

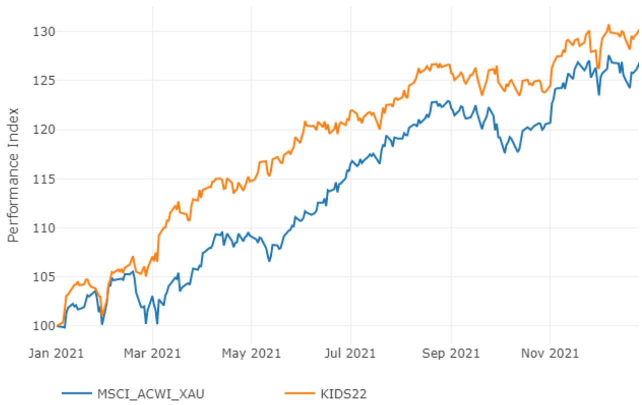
More and different client engagement mechanisms and platforms

Fund Performance and Attribution

Here we summarise the performance of our Global and Emerging Market strategies in 2021.

Realindex Global Shares Strategy[35]

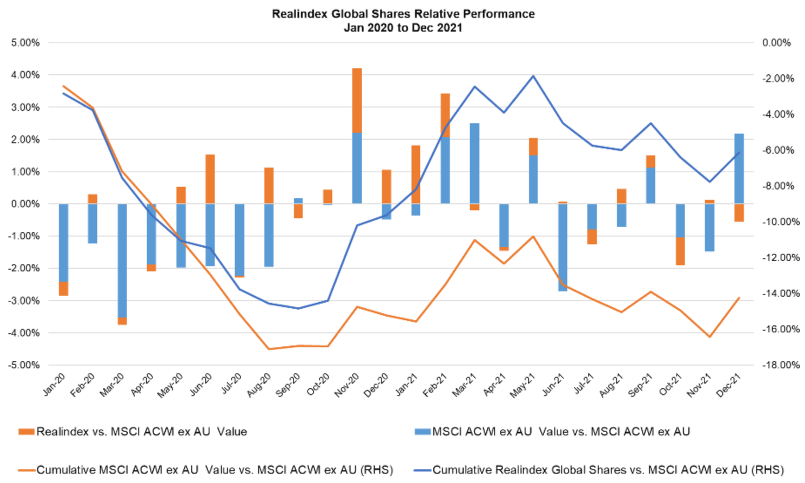
	Return	Risk
Portfolio	29.21%	9.23%
Benchmark	25.65%	10.26%
Active	3.56%	6.19%



Source: Realindex, Factset, MSCI

35 High level performance appears here. Detailed breakdown by factors, style, sector, country and stock appears in the Appendix

The fund delivered approximately 3.5% of outperformance relative to the MSCI ACWI ex Au benchmark in 2021, driven mainly by the performance delivered in Q1 and Q4. The chart below highlights the strategy's ability to offer some hedging against the relatively large rotations Value has experienced since the start of 2020. We can see that while generic value struggled for much of 2020, in 2021 Value (as proxied here by the MSCI ACWI Value index) experienced large rotations in performance right throughout the year. Despite this, the fund both outperformed the generic value benchmark as well as the market cap benchmark for the year.



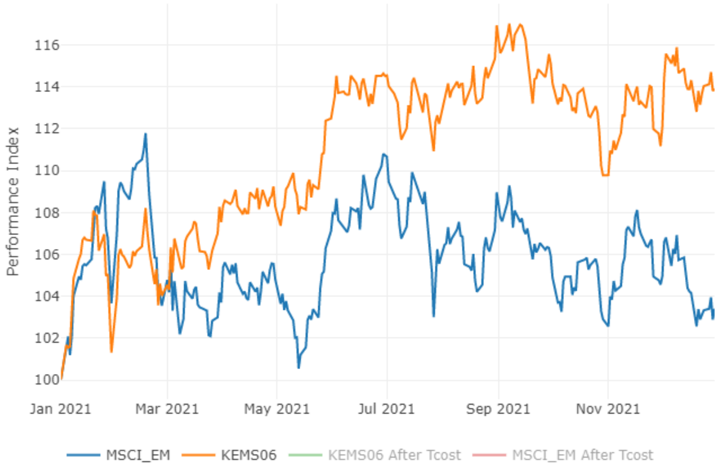
Source: Realindex, Factset, MSCI, Axioma

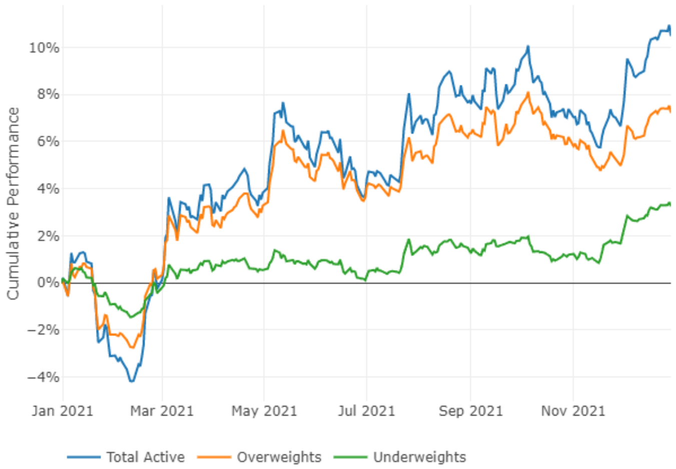
Strongest contributors to performance were:

Style:	Value, Size (small cap tilt) and Momentum. Profitability and Growth detracted
Sector:	Consumer Discretionary and Energy. Financials detracted
Region/Country:	Emerging Markets (mostly China) and the USA.
Stock:	Volkswagen, Alibaba and Gamestop. Microsoft and Apple were the worst.

Realindex Emerging Markets Strategy[36]

	Return	Risk
Portfolio	13.51%	11.58%
Benchmark	3.90%	13.55%
Active	9.61%	6.84%

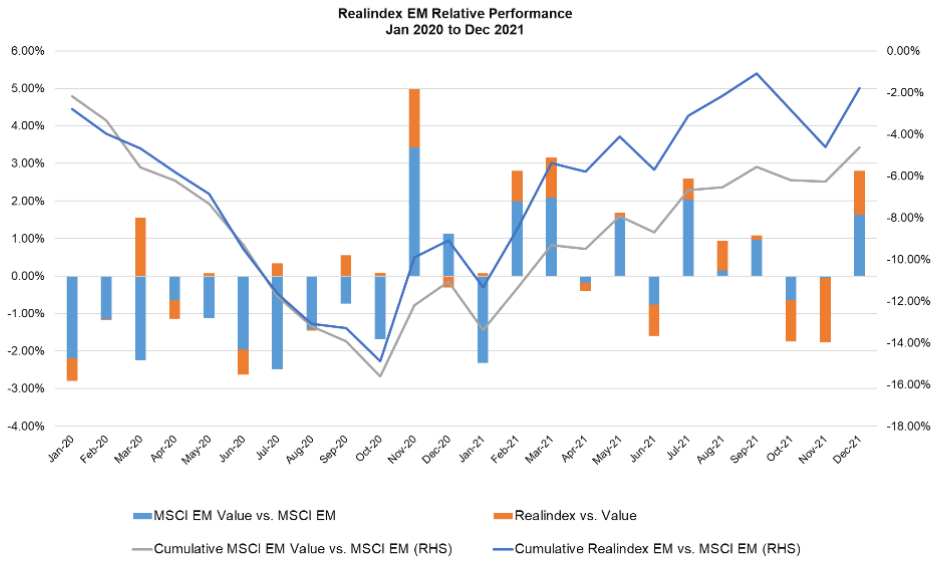




Source: Realindex, Factset, MSCI

[36] High level performance appears here. Detailed breakdown by factors, style, sector, country and stock appears in the Appendix

The outperformance, in 2021 while coming from both under-weights and overweights, were driven by the recovery in the overweights (the value or inexpensive names in the portfolio) and to a lesser extent, the underperformance of expensive, growth names which the portfolio underweights.



Source: Realindex, Factset, MSCI

In the chart above, we decompose the performance of the fund relative to MSCI EM Value benchmark and the performance of the MSCI EM Value index to the MSCI EM index since 2020 to capture behaviour since the pandemic began. We can see that the value oriented nature of the strategy where it struggled in the first half of 2020, only to recover sharply in Q4 of 2020 and throughout 2021 consistent with the dominance of Value oriented strategies. Relative to a value-weighted benchmark, the strategy managed to perform in line with the benchmark, slightly outperforming relative the MSCI EM Value (a generic value index) in 2021 by approx. 85bps.

Style:	Value, Size (small cap tilt) and Volatility. Momentum and Dividend Yield detracted
Sector:	Consumer Discretionary and Communications Services. Information Technology and Financials detracted
Country:	China and Korea. Taiwan detracted.
Stock:	Alibaba and Tencent. Taiwan Semiconductor and Ping An Insurance detracted.

Conclusion and Crystal Ball Time

It would be remiss of us to write a note on 2021 without adding something about expectations for 2022 and beyond. While we have no more accurate a crystal ball than the next person, we can probably make some broad and potentially useful observations. We list three of them here:

1 *Inflation is likely to remain high and this is good for Value (on average)*

Inflation has ticked up sharply in the US and Euro region, triggering a move to tapering and a more hawkish policy in interest rates. We already know that there is a relationship between higher inflation and the performance of the Value factor[37], although there are many compounding factors. Forecasts from OECD and others suggest that inflation will revert somewhat but will be higher than in recent years

2 *Supply Chain Disruption will continue, slowing likely GDP growth*

The new outbreak of the Omicron variant of COVID has again clamped the recovery of global travel and the movement of goods around the world. Shortages and increased costs will continue, driving inflation higher and slowing GDP growth. Nevertheless, recent forecasts suggest that GDP growth will continue to be satisfactory, although perhaps not as great as the 2021 rebound.

3 *Continued pressure on active management*

Active management continues to suffer outflows, due to underwhelming performance (in general) and very significant flows into ETFs. While it is anticipated that ETF flows will slow, the problems faced by active management will not abate until performance improves and fees continue to trend lower.

Although not without its personal and business challenges, 2021 was generally a good year for developed markets. Commodities also fared well. Emerging markets struggled.

Challenges in investment management remain, with fee pressures and large flows into ETFs during 2021. There are some predictions suggesting the flow into ETFs will slow, although active management has taken a beating during the year, in terms of flows and performance. Regulatory changes like YFYS in Australia can only exacerbate this move, and make active management less attractive to clients.

Forecasts for inflation and GDP growth suggest a smoother ride in 2022, although ongoing COVID related health problems and supply chain issues create a lot of uncertainty.

[37] See, for example, our recent paper on Inflation and Value, and the summary at https://www.firstsentierinvestors.com.au/au/en/institutional/insights/latest-insights/Is-higher-inflation-a-tailwind-for-Value-stocks.html

APPENDIX: Detailed Fund Performance Breakdown

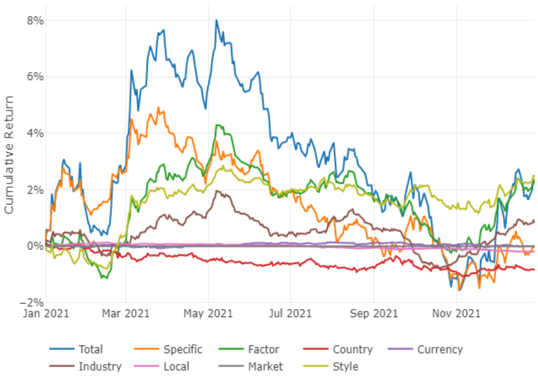
A Realindex Global Shares Strategy

Factors

From a style decomposition perspective, systematic factors were the main driver of the fund's outperformance with little attributed performance coming from idiosyncratic effects beyond style, country and sector bets. Industry allocations offset the detraction in performance that stemmed from country allocations, while style allocations were the primary driver of the outperformance of the fund.

	Return	Risk
Portfolio	29.21%	9.23%
Benchmark	25.65%	10.26%
Active	3.56%	6.19%

			Return	Risk
Active			**3.56%**	**6.19%**
	Specific		0.30%	2.66%
	Factor		3.27%	4.20%
		Style	5.28%	2.42%
		Country	-2.02%	1.94%
		Industry	1.39%	2.00%
		Currency	-1.17%	0.62%
		Local	-0.12%	0.07%
		Market	-0.09%	0.14%

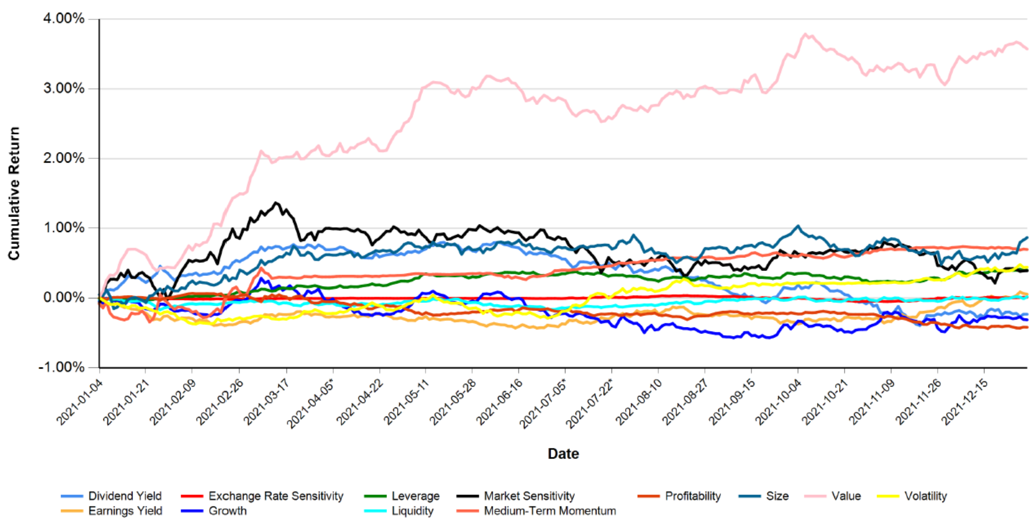


Source: Realindex, Factset, MSCI, Axioma

Styles

Drilling into styles during 2021, the fund ultimately benefited from the positive exposure to generic value (B/P), and Earnings Yield, as well as its strong quality overlay as evidenced by the contribution of Profitability to performance. The funds small cap tilt (as exhibited by negative size exposure) also assisted performance. The fund’s underweight to momentum, underweight to volatile names and positive exposure to dividend payers detracted performance. Overall style exposures contributed 240 basis points of performance during 2021.

Style	Contribution	Avg Wtd Exp
Value	3.44%	0.4998
Size	0.83%	-0.1544
Medium-Term Momentum	0.67%	-0.0217
Volatility	0.43%	-0.0509
Leverage	0.38%	0.1869
Market Sensitivity	0.38%	0.1944
Earnings Yield	0.05%	0.2082
Liquidity	0.02%	-0.0815
Exchange Rate Sensitivity	0.01%	-0.0518
Dividend Yield	-0.22%	0.4572
Growth	-0.30%	-0.3115
Profitability	-0.40%	-0.1166
Total	5.28%	



Source: Realindex, Factset, MSCI, Axioma

Sectors

Controlling for style effects, global industry allocations in the fund also mattered in that the fund's overall industry allocation contributed positively to performance in 2021. The fund's overweight to Energy (in particular Oil and Gas) and the fund's underweight to Consumer Discretionary sectors helped performance from a sector allocation perspective. The underweight to IT and overweight to Financials hurt performance.

However, stock selection within these sectors as evidenced in the Brinson attribution varied across sectors that assisted in performance – particularly in Consumer Discretionary, Health Care, and Energy. Stock selection Financials, Real Estate and Communication Services were detractors.

Sectors	Contribution	Avg Wtd Exp
Consumer Discretionary	1.02%	-0.16%
Energy	0.64%	2.76%
Materials	0.17%	1.87%
Industrials	0.16%	0.10%
Consumer Staples	0.10%	0.06%
Health Care	0.08%	-3.22%
Utilities	-0.07%	0.74%
Telecommunication Services	-0.10%	2.91%
Real Estate	-0.14%	-0.15%
Information Technology	-0.22%	-13.42%
Financials	-0.24%	8.57%
Total	**1.39%**	

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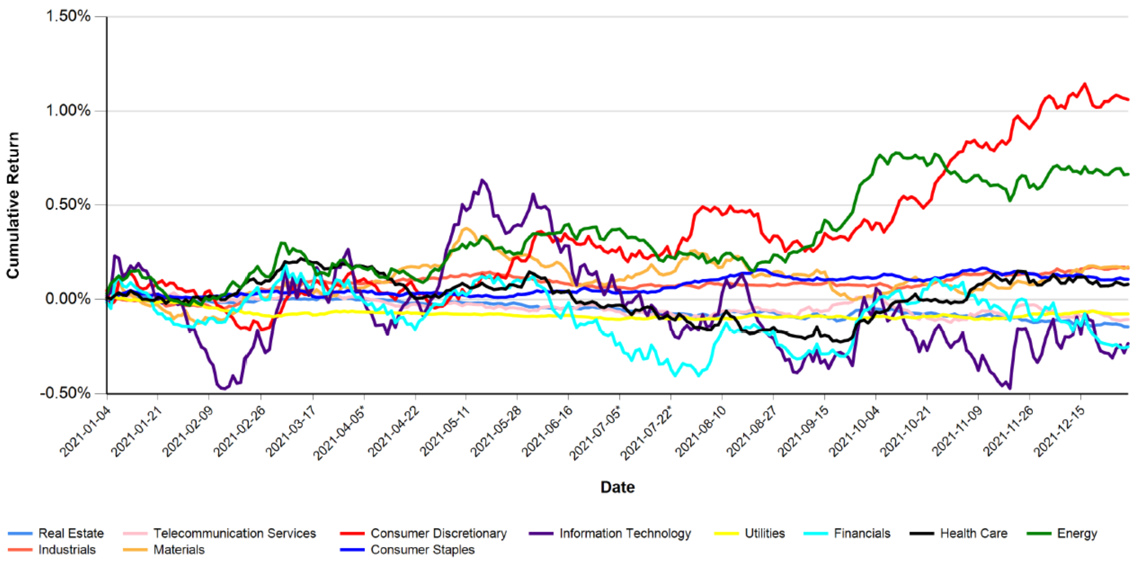


Industry	Contribution	Avg Wtd Exp
Internet & Direct Marketing Retail	0.71%	-2.92%
Oil, Gas & Consumable Fuels	0.64%	2.77%
Internet Software & Services	0.36%	-3.44%
Automobiles	0.32%	2.54%
Software	0.23%	-4.57%
Diversified Telecommunication Services	-0.08%	1.93%
Real Estate Management & Development	-0.10%	0.75%
Life Sciences Tools & Services	-0.12%	-0.90%
Insurance	-0.24%	3.07%
Semiconductors & Semiconductor Equipment	-0.81%	-2.47%

Source: Realindex, Factset, MSCI, Axioma

Brinson Attribution of Sectors 2021

	AvgWt	MinWt	MaxWt	AvgNum	Allocation	Selection	Interaction	Total
Consumer Discretionary	0.17%	-0.14%	0.90%	193	-0.01%	2.41%	-0.02%	2.39%
Energy	2.85%	2.49%	3.47%	75	0.56%	0.25%	0.23%	1.04%
Industrials	0.26%	-0.41%	1.17%	221	0.03%	0.31%	0.06%	0.40%
Financials	8.79%	8.09%	9.38%	281	0.53%	-0.10%	-0.06%	0.37%
Health Care	-3.33%	-4.17%	-2.45%	137	0.09%	0.39%	-0.13%	0.34%
Consumer Staples	0.02%	-0.74%	0.75%	113	0.04%	0.15%	-0.02%	0.17%
Materials	1.92%	1.50%	2.32%	136	-0.05%	0.12%	0.07%	0.14%
Utilities	0.76%	0.62%	1.10%	64	-0.09%	0.07%	0.03%	0.02%
Communication Services	-1.33%	-1.98%	-0.77%	109	0.06%	-0.11%	-0.02%	-0.06%
Real Estate	-0.19%	-0.61%	0.13%	77	0.00%	-0.39%	0.06%	-0.33%
Information Technology	-9.94%	-11.26%	-8.95%	195	-0.96%	-0.07%	0.00%	-1.02%

Source: Realindex, Factset, MSCI, Axioma

Country/Region

At the country level, allocation effects were mostly detracted; especially in North America/US. Interestingly stock selection was strongest in North America as well as EM (China in particular). All regions appeared to have positive stock selection.

Brinson Attribution: Region Effects 2021

	AvgWt	MinWt	MaxWt	AvgNum	Allocation	Selection	Interaction	Total
Emerging Markets	2.31%	-0.06%	3.69%	369	-0.52%	1.89%	0.30%	1.67%
North America	-14.19%	-16.18%	-12.89%	650	-1.16%	2.81%	-0.67%	0.98%
UK	2.07%	1.81%	2.46%	77	-0.00%	0.23%	0.13%	0.36%
Japan	3.36%	2.29%	4.39%	178	-0.65%	0.68%	0.21%	0.24%
Europe	5.65%	5.13%	6.20%	287	-0.16%	0.28%	0.12%	0.23%
Developed Asia	0.80%	0.70%	0.92%	43	-0.20%	0.11%	0.06%	-0.03%

	AvgWt	MinWt	MaxWt	AvgNum	Allocation	Selection	Interaction	Total
CHN	0.56%	-0.58%	1.59%	118	-0.37%	1.69%	0.12%	1.45%
USA	-14.12%	-16.18%	-12.76%	588	-1.17%	2.42%	-0.60%	0.64%
GBR	2.07%	1.81%	2.46%	77	-0.00%	0.23%	0.13%	0.36%
CAN	-0.07%	-0.17%	0.14%	62	-0.01%	0.35%	-0.01%	0.34%
ZAF	0.10%	-0.05%	0.45%	16	-0.01%	0.24%	0.10%	0.33%
JPN	3.36%	2.29%	4.39%	178	-0.65%	0.68%	0.21%	0.24%
IND	-0.44%	-0.90%	-0.22%	35	-0.02%	0.26%	-0.07%	0.17%
ITA	1.28%	1.02%	1.62%	24	-0.05%	0.06%	0.13%	0.15%
DNK	-0.11%	-0.18%	-0.05%	14	-0.00%	0.15%	-0.02%	0.12%
DEU	1.92%	1.63%	2.19%	54	-0.31%	0.25%	0.16%	0.10%
CHL	0.13%	0.05%	0.21%	7	-0.03%	-0.01%	-0.02%	-0.05%
BEL	0.20%	0.14%	0.26%	7	-0.04%	-0.01%	-0.01%	-0.06%
SAU	-0.37%	-0.41%	-0.32%	8	-0.06%	-0.17%	0.17%	-0.06%
RUS	0.71%	0.45%	0.93%	22	0.01%	-0.02%	-0.05%	-0.07%
SWE	-0.18%	-0.27%	-0.09%	27	-0.00%	-0.09%	0.02%	-0.07%
BRA	0.47%	0.13%	0.70%	25	-0.24%	0.09%	0.08%	-0.08%
HKG	0.73%	0.64%	0.87%	31	-0.19%	0.07%	0.05%	-0.08%
CHE	-0.26%	-0.49%	-0.05%	30	0.01%	-0.12%	0.01%	-0.10%
TUR	0.29%	0.20%	0.41%	11	-0.17%	-0.00%	-0.01%	-0.18%

Source: Realindex, Factset, MSCI, Axioma

Stock Selection

At the stock level, the biggest contributors came from a number of regions with VW, Alibaba, GameStop, Wells Fargo and Ford leading the way. The biggest detractors were largely from the underweights to US growth names, such as Microsoft, Apple and NVIDIA, and highlights the relative strength in growth like names and industries, which only began to capitulate in the late stages 2021.

Top and Bottom Stock Contributors to the Fund: 2021

	Avg Active Wt	Time Overweight	Time Underweight	Contribution
Volkswagen AG	0.70%	100.00%	0.00%	0.41%
Alibaba Group Holding Ltd.	-0.29%	0.00%	100.00%	0.32%
GameStop Corp. Class A	0.01%	100.00%	0.00%	0.30%
Wells Fargo & Company	0.38%	100.00%	0.00%	0.27%
Ford Motor Company	0.22%	100.00%	0.00%	0.26%

	Avg Active Wt	Time Overweight	Time Underweight	Contribution
Microsoft Corporation	-2.03%	0.00%	100.00%	-1.28%
Apple Inc.	-1.88%	0.00%	100.00%	-0.87%
NVIDIA Corporation	-0.67%	0.00%	100.00%	-0.77%
Tesla Inc	-0.95%	0.00%	100.00%	-0.64%
Alphabet Inc. Class A	-0.76%	0.00%	100.00%	-0.54%

Source: Realindex, Factset, MSCI, Axioma

Top Stock Specific Contributors: 2021

SEDOL	Name	Contribution	Avg Active Wgt
B0LLFT5	GAMESTOP CORP NEW	0.41%	0.01%
BYZ1WZ4	STEINHOFF INT H NV	0.25%	0.07%
5497102	VOLKSWAGEN AG	0.15%	0.70%
2270726	DISNEY WALT CO	0.15%	-0.36%
2615468	FORD MTR CO DEL	0.14%	0.22%

Top Stock Specific Detractors: 2021

SEDOL	Name	Contribution	Avg Active Wgt
2588173	MICROSOFT CORP	-0.63%	-2.03%
2379504	NVIDIA CORPORATION	-0.36%	-0.67%
BYVY8G0	ALPHABET INC	-0.33%	-0.77%
BYY88Y7	ALPHABET INC	-0.32%	-0.74%
B616C79	TESLA INC	-0.28%	-0.95%
2000019	AMAZON COM INC	-0.16%	-1.73%
2046251	APPLE INC	-0.14%	-1.88%

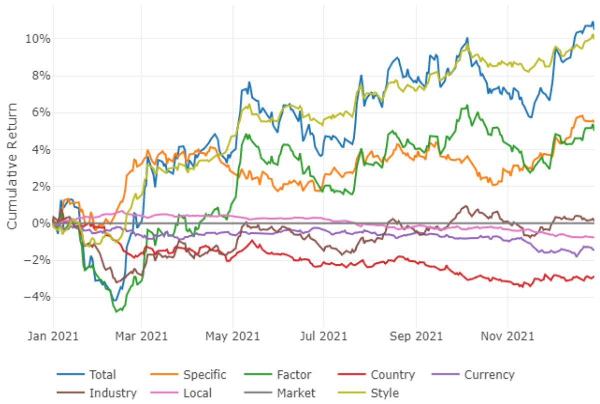
Source: Realindex, Factset, MSCI, Axioma

B Realindex Emerging Markets Strategy

Factors

From a style decomposition perspective, systematic factors we the main driver of the fund's underperformance with little attributed performance to idiosyncratic effects. While for the bulk of 2020, styles along with industry, country and stock selection were detractors in performance, from late 2020 and throughout 2021, performance has been driven primarily by style exposure with country effects being the main detractor, while industry tilts were muted in terms of their performance contribution. Controlling the factor effects, stock selection was also a contributor during this time.

	Return	Risk
Portfolio	13.51%	11.58%
Benchmark	3.90%	13.55%
Active	9.61%	6.84%



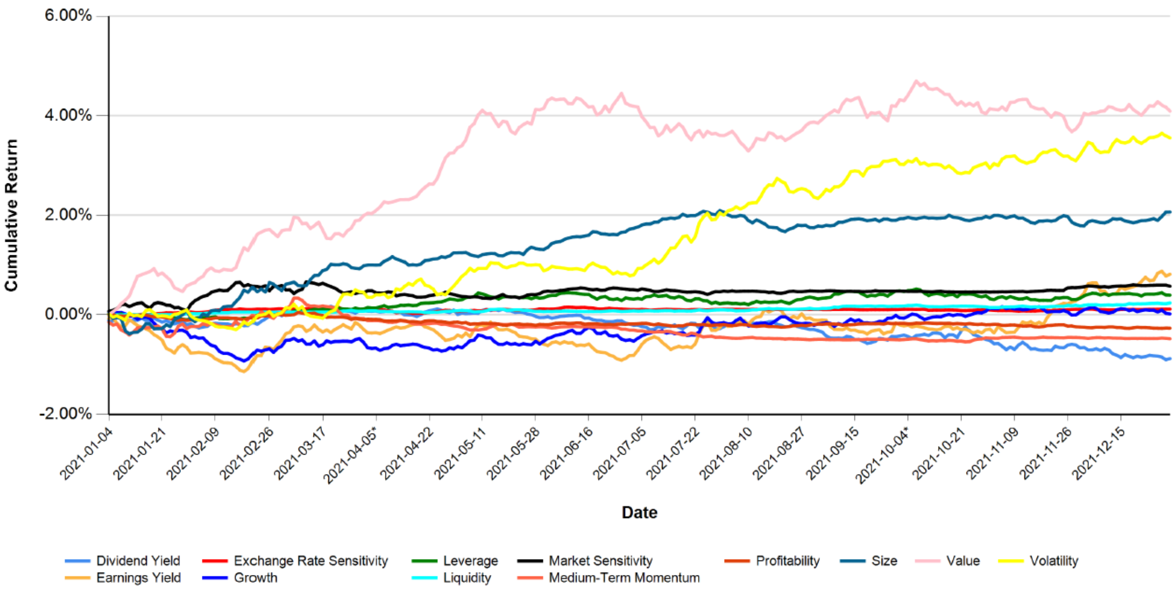
			Return	Risk
Active			**9.61%**	**6.84%**
	Specific		3.89%	3.63%
	Factor		5.72%	4.68%
		Style	9.90%	2.96%
		Country	-2.33%	1.60%
		Industry	0.80%	2.43%
		Currency	-1.48%	1.02%
		Local	-0.73%	0.48%
		Market	-0.44%	0.36%

Source: Realindex, Factset, MSCI, Axioma

Styles

Drilling into styles during 2021, the fund ultimately benefited from the negative exposure to volatility (i.e., the fund had defensive low beta positioning) coupled with a positive exposure to generic value (B/P), Earnings Yield, and smaller caps (as exhibited by negative size exposure). The fund's underweight to Quality like styles namely profitability detracted, along with the underweight to momentum. The fund's exposure to dividend payers was also a significant detractor from a style perspective. Overall style exposures contributed over 960 basis points of performance during 2021.

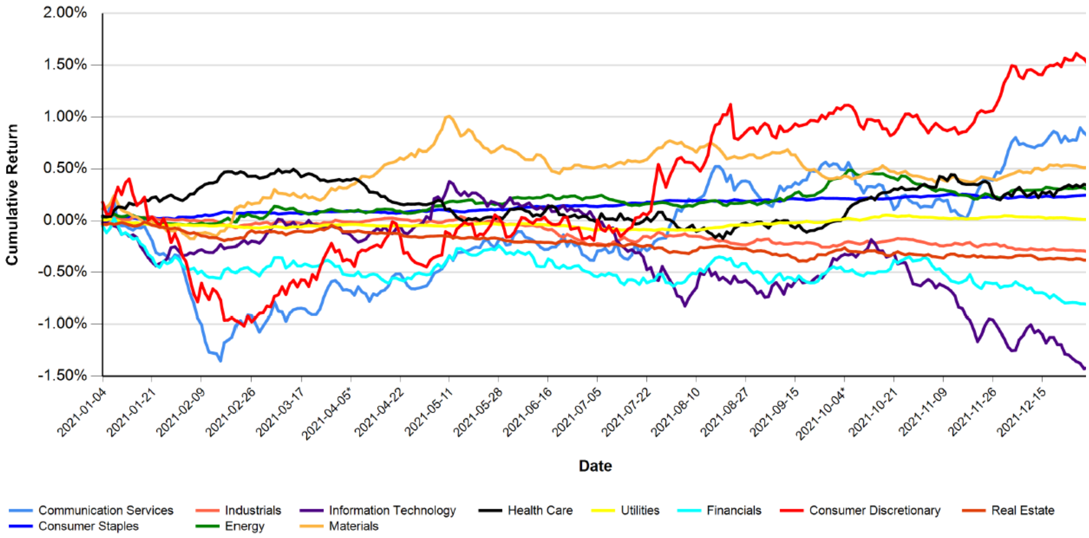
Style	Contribution	Avg Wtd Exp
Value	3.96%	0.6888
Volatility	3.44%	-0.2662
Size	2.00%	-0.1132
Earnings Yield	0.79%	0.4653
Market Sensitivity	0.56%	0.0745
Leverage	0.38%	0.2830
Liquidity	0.23%	-0.0346
Exchange Rate Sensitivity	0.11%	0.0414
Growth	0.02%	-0.3456
Profitability	-0.26%	-0.1100
Medium-Term Momentum	-0.47%	-0.1025
Dividend Yield	-0.85%	0.4798
Total	**9.90%**	



Source: Realindex, Factset, MSCI, Axioma

Sectors

Controlling for style effects, global sector allocations in the fund also mattered in that the fund's overall sector allocation persistently detracted from performance in 2021. Sector allocations contributed almost 80 basis points of outperformance during this period with the underweight to Consumer Discretionary driving industry performance and the underweight to IT detracting. Decomposing the industry contributions, while the under-weight to Internet and Direct Retail Marketing of Consumer Discretionary and Communications services sectors segments delivered considerable performance along with the overweight to Wireless Telcos. The underweight to IT, in part driven by the large underweight to Semiconductors, plus and overweight to Real Estate and Insurers which drove the overweight to Financials, were significant detractors.



Sectors	Contribution	Avg Wtd Exp
Consumer Discretionary	1.46%	-7.68%
Communication Services	0.79%	-1.77%
Materials	0.50%	3.45%
Health Care	0.33%	-3.94%
Energy	0.29%	2.31%
Consumer Staples	0.24%	-0.89%
Utilities	0.01%	1.02%
Industrials	-0.29%	0.72%
Real Estate	-0.37%	1.47%
Financials	-0.78%	10.95%
Information Technology	-1.37%	-4.92%
Total	**0.80%**	

Industry	Contribution	Avg Wtd Exp
Internet & Direct Marketing Retail	1.28%	-7.36%
Wireless Telecommunication Services	0.64%	3.55%
Metals & Mining	0.56%	3.33%
Banks, Thrifts & Mortgage Finance	-0.31%	6.43%
Real Estate Management & Development	-0.36%	1.43%
Insurance	-0.50%	3.92%
Semiconductors & Semiconductor Equipment	-1.35%	-5.17%

Source: Realindex, Factset, MSCI, Axioma

Brinson Attribution of Sectors 2021

	AvgWt	MinWt	MaxWt	AvgNum	Allocation	Selection	Interaction	Total
Consumer Discretionary	-8.01%	-9.52%	-5.45%	114	2.80%	6.30%	-3.13%	5.98%
Communication Services	-2.02%	-4.42%	-0.28%	78	0.16%	2.65%	-0.44%	2.37%
Materials	3.45%	2.42%	4.99%	130	0.54%	0.73%	0.39%	1.66%
Health Care	-4.16%	-4.53%	-3.67%	78	0.89%	1.28%	-1.16%	1.01%
Energy	2.39%	2.07%	2.75%	59	0.59%	0.13%	0.05%	0.76%
Consumer Staples	-1.01%	-1.50%	-0.64%	102	0.04%	0.74%	-0.15%	0.63%
Industrials	0.87%	-0.12%	2.35%	123	0.05%	0.09%	0.07%	0.22%
Utilities	1.03%	0.79%	1.53%	52	0.15%	0.04%	0.00%	0.19%
Real Estate	1.48%	1.10%	1.86%	56	-0.29%	-0.29%	-0.21%	-0.79%
Information Technology	-5.17%	-7.61%	-3.24%	102	-0.81%	-0.08%	0.01%	-0.88%
Financials	11.14%	9.14%	12.73%	221	1.36%	-1.44%	-0.94%	-1.02%

Source: Realindex, Factset, MSCI, Axioma

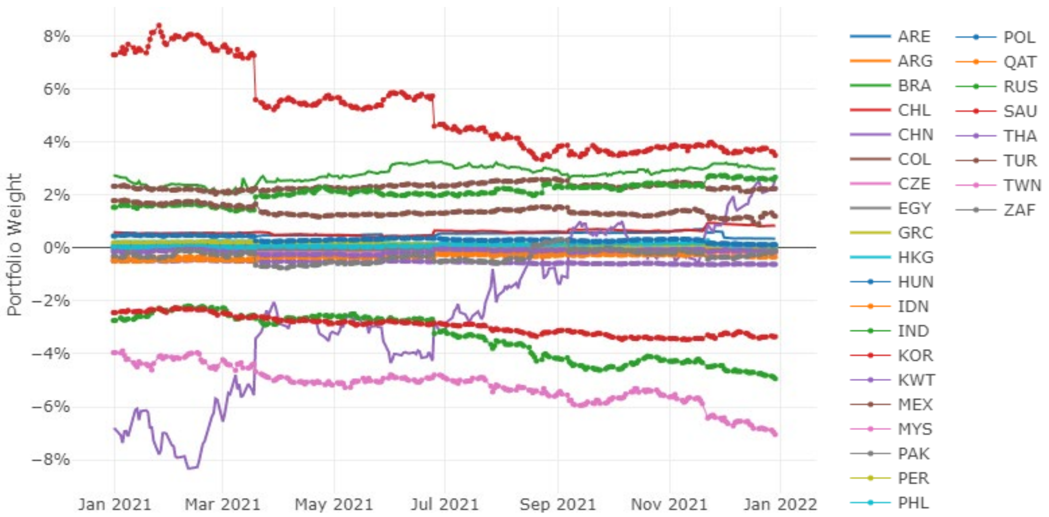
The Brinson attribution provides a different perspective on the behaviour of the sector allocations and the stock selection with them. The fund's significant underweight allocation to Consumer Discretionary was a significant driver of positive performance consistent with the risk attribution analysis; however, we also find that stock selection within that sector was a major value add to the fund. Across most sectors, allocation and stock selection were contributors (with the exception of IT and Real Estate); however in the case of Financials stock selection was significant detractor.

Country

Country and Currency allocation effects impacted performance negatively, with the two effects providing almost 380 basis points of underperformance.

However if we look at the allocations of the fund across countries, we can see that country effects are driven by both allocation and stock selection. Allocation effects were largely driven by the funds most significant country exposures of the fund: The underweight to Saudi Arabia, Taiwan and India but also the overweight to Korea resulted in large detractors from a country allocation perspective. However stock selection effects varied across countries; of particular note is the underweight to China – while a significant underweight, the allocation effect was marginally positive for 2021, but it was the stock selection within China (largely the underweights positions in Meituan, PinDuoDo, Alibaba and Tencent which belong to technology and technology adjacent industries) that drove the positive stock selection effect. We also note that very interestingly, during the course of the year, the portfolio exposure to China went from being one of the fund's largest underweights to becoming an overweight by end of the year. This was in part due to the collapse of tech giants and the consumer discretionary sectors in China which in turn drove down the market which the fund was underweight:

Brinson Attribution: Country Effects 2021



Source: Realindex, Factset, MSCI, Axioma

	AvgWt	MinWt	MaxWt	AvgNum	Allocation	Selection	Interaction	Total
CHN	-2.43%	-8.32%	2.61%	393	0.31%	8.64%	-0.65%	8.29%
KOR	5.14%	3.34%	8.41%	112	-0.28%	1.27%	0.48%	1.47%
ZAF	-0.31%	-0.76%	0.32%	37	-0.05%	1.46%	-0.19%	1.23%
MEX	2.32%	2.03%	2.61%	31	0.55%	0.12%	0.15%	0.82%
BRA	2.79%	2.02%	3.30%	57	-0.40%	0.53%	0.31%	0.44%
RUS	2.10%	1.39%	2.75%	39	0.49%	-0.09%	-0.07%	0.33%
ARE	0.50%	0.34%	0.72%	10	0.25%	-0.02%	-0.02%	0.20%
IND	-3.38%	-4.93%	-2.19%	102	-0.93%	1.60%	-0.49%	0.18%
MYS	-0.11%	-0.24%	-0.02%	33	0.01%	0.14%	-0.01%	0.14%
POL	0.32%	0.12%	0.51%	13	-0.00%	0.07%	0.04%	0.10%
HKG	0.10%	0.00%	0.28%	0	0.09%	0.00%	0.00%	0.09%
THA	-0.14%	-0.29%	-0.03%	55	0.01%	0.08%	-0.01%	0.08%
PHL	0.11%	0.02%	0.27%	17	0.02%	0.03%	0.01%	0.06%
CZE	0.08%	0.05%	0.10%	3	0.04%	-0.00%	-0.00%	0.03%
HUN	0.07%	0.03%	0.09%	3	0.01%	0.00%	-0.00%	0.01%
GRC	0.01%	-0.04%	0.06%	5	-0.00%	0.01%	-0.00%	0.01%
PER	0.14%	0.06%	0.23%	3	-0.04%	0.02%	0.02%	0.00%
PAK	-0.02%	-0.02%	0.00%	0	0.00%	0.00%	-0.00%	0.00%
EGY	-0.08%	-0.09%	-0.06%	1	-0.01%	-0.01%	0.01%	-0.01%
IDN	-0.32%	-0.42%	-0.23%	20	0.00%	-0.01%	0.00%	-0.01%
COL	0.16%	0.14%	0.19%	7	-0.02%	0.00%	0.00%	-0.01%
ARG	-0.13%	-0.20%	0.00%	2	-0.02%	-0.03%	0.03%	-0.02%
QAT	-0.27%	-0.49%	-0.09%	12	-0.01%	-0.03%	0.01%	-0.03%
CHL	0.61%	0.41%	0.95%	16	-0.10%	-0.02%	-0.02%	-0.13%
KWT	-0.54%	-0.63%	-0.45%	6	-0.17%	-0.18%	0.18%	-0.17%
TUR	1.39%	0.91%	1.81%	17	-0.41%	-0.00%	-0.01%	-0.43%
SAU	-2.93%	-3.46%	-2.26%	36	-1.05%	-1.11%	1.11%	-1.05%
TWN	-5.20%	-7.04%	-3.89%	83	-1.46%	-0.05%	0.02%	-1.50%

Source: Realindex, Factset, MSCI, Axioma

Stock Selection

At the stock level, the biggest contributors and detractors were largely driven by allocation effects particularly within China and the technology and technology adjacent sectors. In particular, the underperformance of Alibaba where the fund was structurally underweight and underwent turmoil over the last 12 months regarding the impact of increased government regulations and antitrust investigations of several high profile tech oriented firms, was a major contributor. As noted earlier, the underweight to several of the China's Consumer Discretionary, Technology and Communication based firms such Meituan, Tencent and Pinduoduo were all major detractors. The underweight to Taiwan semiconductor was however a key detractor to the fund during 2021.

Top and Bottom Stock Contributors to the Fund: 2021

	Avg Active Wt	Time Overweight	Time Underweight	Contribution
Alibaba Group Holding Ltd.	-2.39%	0.00%	100.00%	2.33%
Tencent Holdings Ltd.	-4.31%	0.00%	100.00%	0.76%
Pinduoduo, Inc. Sponsored ADR Class A	-0.59%	0.00%	100.00%	0.61%
Vedanta Limited	0.52%	100.00%	0.00%	0.49%
Tata Motors Limited	0.43%	100.00%	0.00%	0.47%

	Avg Active Wt	Time Overweight	Time Underweight	Contribution
Taiwan Semiconductor Manufacturing Co., Ltd.	-4.38%	0.00%	100.00%	-1.08%
Ping An Insurance (Group) Company of China, Ltd. Class H	1.54%	100.00%	0.00%	-0.73%
China Evergrande Group	0.26%	81.15%	18.85%	-0.44%
Al Rajhi Bank	-0.44%	0.00%	100.00%	-0.34%
Public Joint-Stock Company Gazprom	-0.56%	0.00%	100.00%	-0.33%

Source: Realindex, Factset, MSCI, Axioma

Controlling for style, sector and country effects however, we can measure the ability of the fund to stock select. In the table below, we list the 5 contributors and detractors to specific returns in the fund. We find that the fund's top and bottom contributors change once the stock's country, sector and style membership is taken into account; of particular note is the underweight to Taiwan Semiconductor; which in an absolute sense detracted over 100 basis points of performance. However once it's sector, style and country membership is taken into account, Taiwan Semiconductor was a key contributor. A similar case holds for Meituan. In other cases, the overweight to Ping An Insurance and Evergrande were detractors regardless of whether style country and sector effects are taken into account.

Top Stock Specific Contributors: 2021

Name	Contribution	Avg Active Wgt
TAIWAN SEMICONDUCTOR MFG. CO., LTD.	0.85%	-4.38%
CHINA MERCHANTS BK	0.50%	1.31%
STEINHOFF INT H NV	0.31%	0.13%
PINDUODUO INC ADR	0.29%	-0.59%
JBS SA	0.26%	0.34%

Name	Contribution	Avg Active Wgt
MEITUAN	-0.64%	-1.69%
TENCENT HLDGS LTD	-0.52%	-4.30%
PING AN INSURANCE	-0.42%	1.54%
CHINA EVERGRANDE G	-0.39%	0.25%

Source: Realindex, Factset, MSCI, Axioma

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