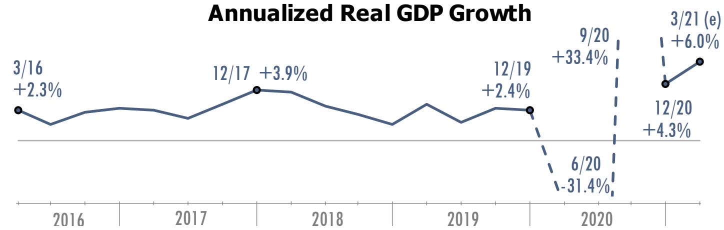
Bellwether CONSULTING

Your Quarterly Update on the Financial Markets
March 31, 2021

MARKET Recap

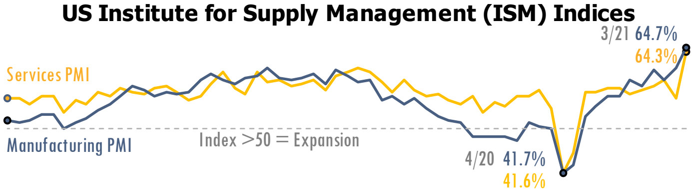
The US Economy: “Gearing Up”

Annualized Real GDP Growth

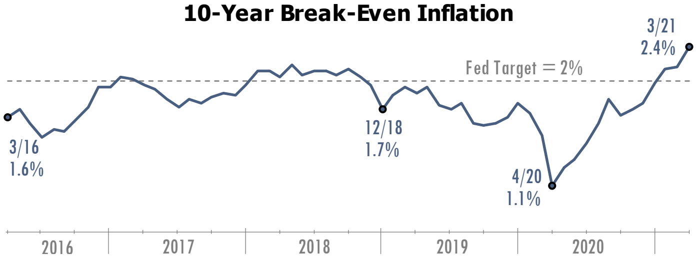


The recovery in economic growth continued in Q4, albeit at a 4.3% pace which was slightly weaker than expected. Consumer spending on services was constrained by restrictions on travel and restaurants, while demand for goods remained relatively strong. An increase in private inventory investment contributed, reflecting increased manufacturing activity for durable and nondurable goods. Imports increased faster than exports, detracting from GDP growth.

US Institute for Supply Management (ISM) Indices



10-Year Break-Even Inflation



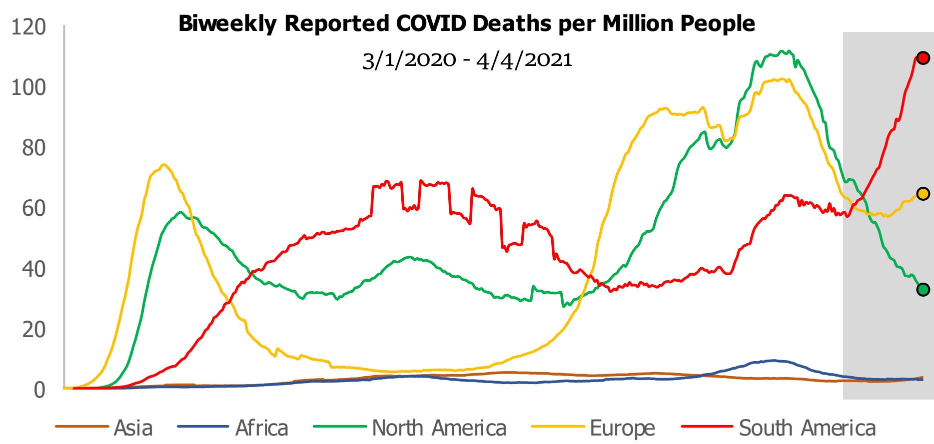
Activity indicators were up in Q1, supporting GDP growth projections of 6.0% (based on the Atlanta Fed’s GDPNow forecast). Manufacturing continued to improve steadily through the quarter as inventory spending increased. The services sector has recovered more slowly, but the widely-followed Services PMI Index climbed sharply in March on limited re-openings.

Employment data surged in March; non-farm payrolls increased by 916,000, well over consensus expectations, and the unemployment rate fell to 6.0%. Leisure and hospitality showed the strongest gains with 280,000 new hires. Bond investors continued to price in increased inflation expectations, on stronger-than-expected activity and concerns that short-term supply bottlenecks could lead to higher prices.

In short, the US appears to be experiencing a strong cyclical recovery. While that has put upward pressure on long interest rates, most equities and credit instruments have fared well as, so far, increased expected earnings growth has outstripped the negative impact of higher discount rates. The exceptions are mainly those companies for which high earnings growth was already priced in, and which are interest-sensitive because their earnings are more heavily weighted to future years (e.g., technology stocks). Continental Europe stands in sharp contrast, as COVID infection and death rates began climbing again in March prompting new lockdowns, and South America (particularly Brazil) is a mess.

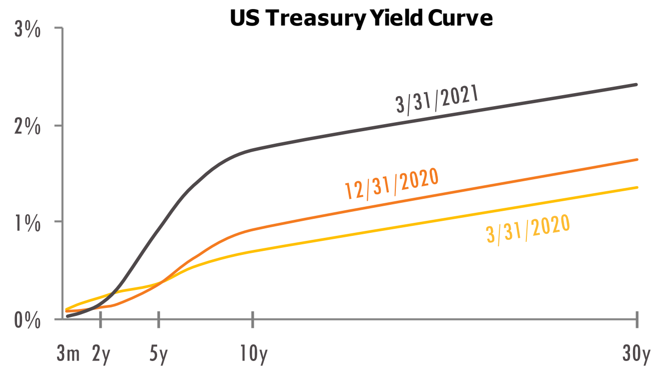
The divergence of economic recovery between the US and Eurozone drew comments from Fed Chairman Powell. Following the March 17th FOMC meeting, he noted that a US-led recovery should benefit the rest of the world as strong consumer spending will likely drive up imports. His press conference was otherwise upbeat; FOMC participants revised their projections for growth and inflation upward for this year, with a median core inflation rate of 2.4% in 2021.

Largely absent from the discussion at this point is the cost for the recent and next rounds of stimulus, which will push US deficits and the debt-to-GDP ratio further into record territory. It seems likely that cyclical recovery will be the dominant story for 2021. However, tax policies, debt levels, and rising interest rates loom.



Source: Center for Systems Science and Engineering (CSSE) at Johns Hopkins University

The US Bond Market



The first quarter brought the pain to long-duration investments but much rejoicing to yield-starved investors. Pension plan sponsors may also breathe easier after valuing liabilities at, what might be more appropriately deemed, a lack-of-discount rate. While the major US bond sectors were flat or down in the first quarter, the rise and steepening of the yield curve is a healthy adjustment towards normality; and, aren't we all looking for some return to normality wherever it can be found these days?

The shape of the yield curve continued on the path set in Q4 when the 10-year US Treasury key rate steepened 23 basis points to the 3-year. In Q1, the 7-year moved 72 basis points steeper relative to the stubborn 2-year yield. Roughly half of the slope of the curve is packed into the area between the 3-year and 7-year maturities. The Fed indicates they plan to continue $120 billion in bond purchases per month, swelling an already moribund $7 trillion balance sheet. Assuming this and other monetary stimulus winds down, we should see rates continue to rise and the shape of the curve normalize.

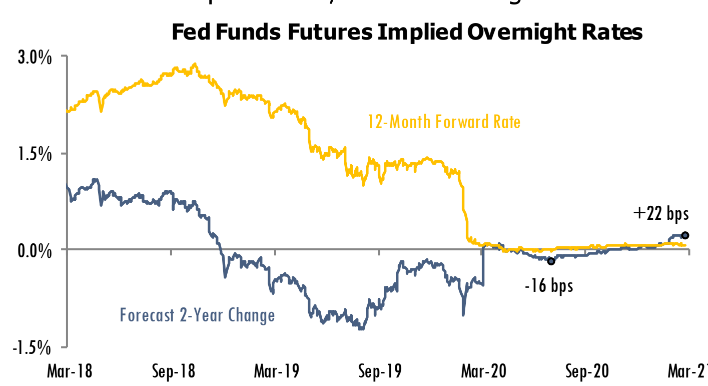
Fitch has projected a default rate of 3.5% for high yield corporate bonds and 4.5% for leveraged loans in 2021. For 2020 through 2022, they expect the cumulative defaults across high yield to amount to roughly 60% of what was experienced from 2008 through 2010. Some companies, like Macy's are seeing an uptick in sales correlated to vaccine rollouts. So far, in 2021, the pace of Chapter 11 bankruptcy filings has slowed from 2020. However, 44% of middle-market retailers (revenue from approximately $10 million to $1 billion) expect a decline in revenue this year; and, almost as many have plans for a significant sale/divestiture or for a business restructuring/reorganizing [BDO].

US Bond Index Returns	
Blmbrg Barclays	**1Q21**
Aggregate	-3.37%
Short Gov't	0.04%
Interm. Gov't	-1.72%
Long Gov't	-13.39%
TIPS	-1.47%
Municipal	-0.35%
Interm. Credit	-2.07%
Long Credit	-8.39%
High Yield	0.85%
(CS) Lev. Loan	2.01%
MBS	-1.10%

Meanwhile, credit spreads continued to contract, firmly indicating widespread optimism on default rates going forward. High-yield spreads ended the quarter at 336 basis points, lower by one-half of a percentage point. This is just 20 basis points above post-2008 lows. Going by longer-term historical lows, investment-grade corporates, now at 97 basis points, may have another 25-50 basis points to go based on their 25-year low of 53 basis points recorded in October 1997. By this measure, high-yield spreads may have almost 100 basis points in remaining runway given a 25-year low of 241 basis points set in May and June 2007.

Given the cross-product of low rates and high demand, corporate bond issuance poured into the market through the first quarter. In particular, non-investment-grade issuers found a welcoming audience of investors to take down their $152 billion in newly minted high-yield bonds. This topped even the record volumes notched in the second and third quarters of 2020. Leveraged loans also picked up, with monthly volumes through the quarter exceeding those seen during post-pandemic 2020.

As to where yields might be headed for the rest of 2021 and beyond, we look to the tea leaves cast in the rates market. From the outset of fiscal policy response to the pandemic, the Fed forward guidance has not wavered from zero-interest-rate policy through 2023. In the middle of last summer, Fed Funds futures were pricing up to a 25% chance of the Fed taking the leap into negative interest rate policy. Thankfully, this never came to pass. Now, we are starting to see the first seeds of doubt priced into the futures contracts going the other way, that the Fed may ultimately back down on their lowest-for-longest stance.



As of Q1, the March 2023 Fed Funds contract has priced in an average overnight rate of 0.28% for the month, implying more likely than not the next rate hike will occur by then. The last time the market second-guessed the Fed, the Fed was the one to pivot. This was in 2019, when stocks, as today, were pushing to record highs, but the overnight Fed Funds target rate was 1.5% greater and the market was telling the Fed to back off on tightening.

The US Stock Market

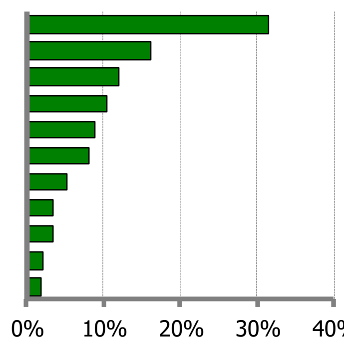
The US stock market posted a solid quarter with optimism driven by better-than-anticipated progress on the vaccine rollout and stimulus that also exceeded expectations. The US is experiencing an unprecedented level of fiscal spending, even before the impact of the American Jobs Plan announced on the last day of the quarter is taken into account (or known). Q1 marked the fourth quarter in a row of gains in both the Dow Jones Industrial Average and the S&P 500, with the S&P 500 closing the quarter at a new record high.

US Stock Indices - Total Returns

Large-cap Stocks	1Q21	Mid-cap Stocks	1Q21
S&P 500	6.17%	S&P Midcap 400	13.47%
Russell 1000	5.91%	Russell Midcap	8.14%
Growth	0.94%	Growth	-0.57%
Value	11.26%	Value	13.05%
Broad Markets		**Small-cap Stocks**	
S&P 1500	6.91%	S&P Smallcap 600	18.24%
Russell 3000	6.35%	Russell 2000	12.70%
Growth	1.19%	Growth	4.88%
Value	11.89%	Value	21.17%

The quarter saw the extension of trends begun in October of 2020, namely the rotations to value from growth and to small-caps from large-caps. By the end of March, value stocks had outperformed growth stocks by the widest margin since 2001, and the small-cap indices recorded a second quarter of returns more than double that of their large-cap peers, signaling a shift in investor favor from companies that benefitted during the lock-down environment to those that are likely to flourish in a recovery. In the factor benchmarks, the MSCI Barra earnings yield and value indices outperformed their quality, momentum, and low volatility counterparts, further reinforcing previous trends. As a broad economic recovery seemed both more likely and imminent, investors were willing to take a chance on firms they had previously deemed unlikely to survive.

S&P 1500 Economic Group Components - Total Returns



Sector	1Q21
Energy	31.42%
Financials	16.32%
Industrials	11.94%
Materials	10.60%
Real Estate	8.92%
Comm. Services	8.13%
Consumer Discr.	5.31%
Utilities	3.38%
Health Care	3.37%
Info Tech.	2.28%
Consumer Staples	1.85%

Source: Morningstar

As has been the case over the past year, Q1 was marked by periods of volatility. Potential inflation, rising bond yields, and (occasionally) COVID-related headlines unsettled investors. However, the dramatic increase in activity by, and impact of, retail investors enabled by social aggregation and discussion platforms like Reddit, was a major market disrupter that left Wall Street wondering if the frenzy would evaporate with the next market crash or if it was the dawning of a new market era. By some estimates, retail investors accounted for 23% of all US equity trading in 2021, more than double the level in 2019. While investing groups on these platforms are typically most interested in small-cap (e.g., GameStop) or even penny stocks, their influence has not been limited to small, beaten down names. During certain periods in 2020, some analysts estimate they made up as much as 50% of trading in Apple.

The financials sector was a top performer in Q1 as banks benefitted from a steepening yield curve and, for some, increased revenues from a surge in investment banking activities. However, with oil prices rising over the quarter due to lower supply after OPEC+ production limits and weather-related supply disruptions in the US, the energy sector posted the best return for the quarter. While defensive sectors like real estate, utilities, and consumer staples, lagged for most of the period, a mid-March rotation saw them finish the month on better relative footing, although it was not enough to overcome prior lagging performance. By sector, the worst-performing industries for the quarter were in consumer discretionary, while a jump in steel prices off their August 2020 low drove strong returns in materials.

S&P 500 Best & Worst Industries - Total Returns

Industry	1Q21	2020
Steel	51.67%	-1.85
Publishing	39.81%	27.95
Drug Retail	38.98%	-29.33
Oil & Gas Exploration & Production	38.23%	-35.42
Integrated Oil & Gas	32.90%	-33.42
Metal & Glass Container	-8.90%	45.19
Footware	-5.87%	40.96
Internet Software & Services	-5.86%	16.09
HyperMarkets & SuperCenters	-5.77%	27.43
Application Software	-4.37%	49.94

Source: Morningstar

Earnings growth in Q1 for S&P 500 companies is forecasted to come in at 23.8% YOY, well above the 5-year average of 3.8%. The is due not only to rising earnings, but also to the weak levels in Q1 2020. Earnings estimates increased over Q1 so that the bottom-up EPS estimate was 6% higher at the end of Q1 than at the beginning. Typically, this figure declines over a quarter, but Q1 2021 saw its largest increase since FactSet began tracking the statistic in 2002.

IPO activity increased in Q1, accelerating its biggest boom since the dot-com bubble. As of mid-March, over 300 IPOs raised $102 billion, up over 763% YOY. SPACs, continued to make up the lion's share of the market at almost 80%, with record-setting IPO activity supported by the combination of a long-running bull market and low interest rates. (For more on SPACs, see the Focus Piece in last quarter's Market Recap.)

International Markets

The first quarter of 2021 saw markets pricing in a swift and robust economic recovery. Riskier, cyclical assets appreciated while sovereign yield curves steepened, driving fixed income lower. With inflation expectations rising, most commodities continued their bullish run. Rising yields and a moderate strengthening of the US dollar turned conditions for emerging markets less favorable in March. Sentiment remained positive but there was significant dispersion under the surface, with Latin American equity markets posting negative returns.

Europe

Equities ended Q1 near record highs as markets shrugged off slower-than-anticipated vaccine rollout. European stocks also disproportionally benefited from the growth to value rotation – the MSCI Europe index is more heavily weighted towards industries considered value, such as financials at 17%, industrials at 15%, and energy at 5%. Its weight to technology, on the other hand, is 9% versus 27% in the Russell 1000.

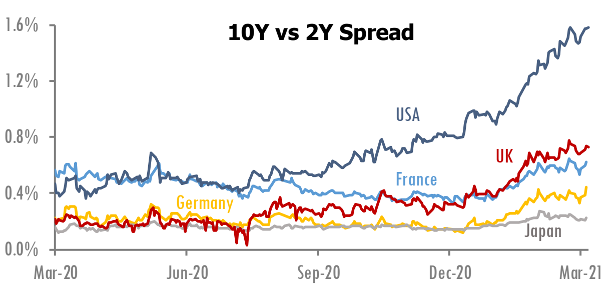
Foreign Stock & Bond Indices - Total Returns

MSCI Broad Indices	1Q21	Barcap Global Indices*	1Q21
MSCI ACWI ex-US	3.49%	Global Aggregate	-4.46%
EAFE (Developed)	3.48%	Pan-Euro	-5.79%
Emerging Markets	2.29%	Asian-Pacific	-4.76%
		Eurodollar	-0.62%
MSCI Regions		Euro-Yen	-10.00%
Europe	4.08%	Other Currencies	-8.07%
Japan	1.57%	** Unhedged*	
Pacific ex-Japan	4.62%		
Latin America	-5.32%		

The rapid rise in yields improved sentiment for financials, a laggard in the ultra-low rate environment of recent years. Rising yields are expected to boost bank lending income, a major source of revenues. Additionally, the cost of funds for banks remained below pre-pandemic levels. The European Central Bank signaled in March that it will continue to keep funding conditions favorable through asset purchases and low rates for the foreseeable future.

Industrials rallied on record demand in Q1. In March, the Eurozone saw strong growth in its manufacturing sector, with Markit's Manufacturing PMI coming in at 62.5 (vs. 57.9 in February). The March figure is the highest reading in 24 years and the ninth consecutive expansionary (above 50) reading since July 2020. German manufacturers led the way.

As the demand outlook drove industrial stocks higher in the first quarter, manufacturers also reported the largest spike in input costs in over a decade, signaling historically strong inflation. The ECB, much like the Fed, shrugged off any inflation fears as "transitory" and stated that inflation in 2021 may be volatile, but the central bank will not react to "short-term blips." The ECB expects inflation to pick up to 1.5% in 2021, before moderating to 1.2% in 2022.



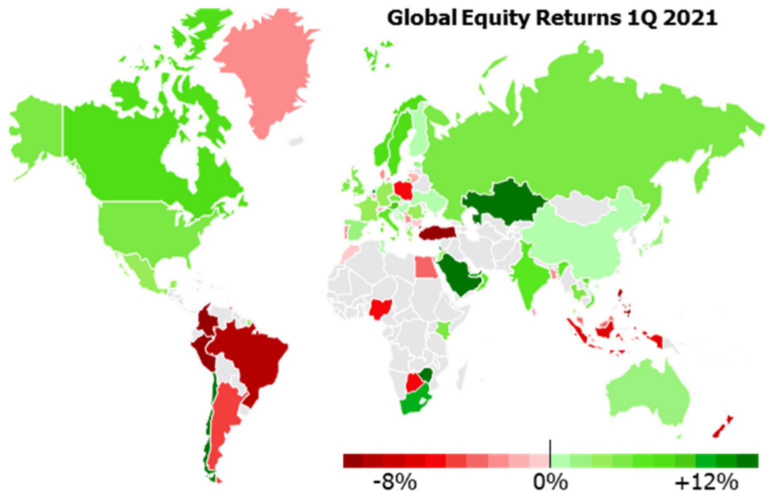
Despite the reassurance from the ECB, yields ended the quarter higher. The German 10-year rose 34 bps from a low of -0.60% to -0.26%, while the UK 10-year rose from 0.16% to 0.84% over Q1. The degree of steepening, however, fell far short of what was seen in the US – signaling that the outlook for the Eurozone and the UK remains much weaker than the US. Even as sovereign debt took a knock, credit spreads continued to tighten. High-yield spreads for the Eurozone dipped below pre-pandemic lows of 3.38%, coming in at 3.35% in late March.

Americas

The Bank of Canada raised its outlook for 2021 GDP growth to 5.4% from 4.2%. The revision stems from higher-than-expected Q4 growth of 9.6% (annualized), the second-strongest among G7 countries. Another upside surprise was the 0.5% monthly GDP growth in January despite the shutdown of nonessential businesses in Ontario and Quebec. The BoC left its key policies unchanged in March, holding the overnight rate steady at 0.25% and government bond purchases at $4 billion per week. It also reiterated its forward guidance to keep the overnight rate at its current level until the economy returns to full capacity, which in its January forecast wasn't until 2023.

COVID-19 deaths and infections have reached record levels in Brazil. Logging over 1,000 deaths per day has created a humanitarian and economic crisis. March saw the country register the most COVID deaths worldwide and intensive care units have reached their limits.

States and major cities in Brazil have been forced to adopt social distancing measures including shutting restaurants, bars, and malls. The impact was felt across several industries with carmakers like Volvo, Volkswagen, and Scania halting production due to supply chain instability and to shield workers from the virus. Petrobras temporarily reduced output at various facilities due to coronavirus outbreaks. Consumer spending lost momentum, with retail sales contracting for the second consecutive month in January.

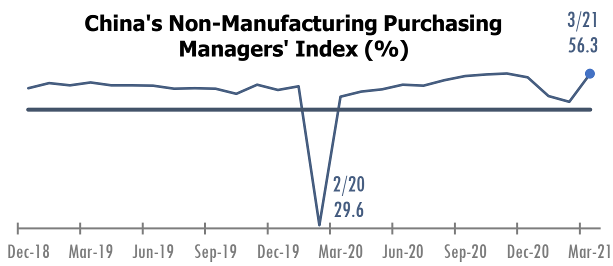


In addition to virus concerns, inflation remains a worry in Brazil. Pricing pressure has been increasing since mid-2020 with headline inflation of 5.25% in February. Food prices have been a key driver with housing-related goods also contributing to rising consumer prices. Producer prices rose 23% in January due to sharp increases in the prices of intermediate goods and commodities. While Brazil dodged a dire economic forecast in 2020, recording robust growth of 7.7% and 3.2% in 3Q and 4Q due to the coronavirus welfare program, given the current state of the virus and the economy, the 2021 outlook remains subdued.

Asia

China's GDP rose 6.5% in Q4 from a year earlier. The country's economy expanded by 2.3% in 2020, the only major world economy to grow in 2020. Expansion was powered largely by industrial production, exports, and government-backed investment. However, the economy started the new year on a weaker footing on new coronavirus outbreaks and containment measures. In March, the recovery picked up again, boosted by strong domestic consumption and stable foreign demand for goods.

The manufacturing PMI dropped to 51.3 in January from December's 51.9 reading. Sub-indices measuring manufacturing production, total new orders, and new export orders eased. In February, the overall index declined further to 50.6 but rallied in March, back to 51.9 reading. Sub-indices measuring manufacturing production and total new orders led the rally.



The non-manufacturing PMI also weakened in January, after dropping to 52.4 from 55.7 in December. The new-orders sub-index, a key measure of demand, fell to 48.7 from 51.9 the previous month, when the economy was absorbing the very worst of the coronavirus shock. March registered a strong rebound to 56.3, suggesting a broadening of activity. The subindex measuring business activity in the service sector strengthened to 55.2 in March as China brought a resurgence of infections under control.

Exports and infrastructure spending powered a recovery that picked up steam throughout the year. In December, exports jumped 18.1% from a year earlier. The gain was driven in part by a quick pivot to sell personal protective equipment, whose sales have surged during the pandemic. Growth has been highly unbalanced, relying on exports of manufactured goods to the US and elsewhere. Domestic consumption has lagged, with retail sales shrinking 3.9% in 2020, and demand for imported goods falling slightly. The government didn't hand out checks to consumers as the US did, focusing instead on factories and businesses. In the January-February period, however, retail sales expanded 33.8% from a year earlier.

After stellar performance in 2020, stocks have been trending lower. The CSI 300 Index tumbled in Q1 by 3%. Financial regulators warned about the risk of bubbles forming in domestic real-estate prices and global financial markets.

Japan's recovery lost steam after good results in 2020. In Q4, real GDP was down just 1.2% year-over-year as a rebound in consumer spending and foreign demand boosted growth, outpacing GDP growth of developed market partners. In early 2021, Japan saw an uptick in COVID-19 cases, prompting another state of emergency for 11 prefectures including Tokyo. The expected result is a contraction in Q1 GDP subdued domestic demand into early summer, but growth is expected to accelerate during the second half of the year. The government has provided significant fiscal stimulus, roughly 66% of annual GDP to date, and are considering another stimulus package as well.

Turkey was by far the worst performer in the region. Central bank governor Naci Ağbal, an inflation hawk, raised rates by 8.75% since his appointment in November, much to the ire of President Erdogan. His tough stance on inflation inspired confidence from international investors and Turkish assets witnessed inflows of over $15 billion. However, this was undone on March 22nd by Erdogan's abrupt decision to fire Ağbal and the Lira collapsed by 13.5% in a single session.

Over the past five years, the Lira has lost 65% of its value. The currency's poor history as a stable store of value, combined with double-digit inflation, provides an interesting use case for cryptocurrencies as an alternative. Exchanges have reported a surge in trading volume and new registrations since the incident, which may be a sign of growing adoption.

Focus On: Market Capitalization – *An Imperfect Guide for Diversification*

Market capitalization, the product of a stock's price and number of outstanding shares, is the de facto standard for how much weight to give to each equity position in a portfolio. It serves a useful standard, but every standard has its limits.

Market cap results from:

- Net Value of assets over liabilities
- Expected future earnings
- The probability distribution of those earnings
- Interest rates discounting those earnings

Accordingly, market cap should increase when:

- The value of a company's assets appreciate versus liabilities
- The earnings outlook improves
- The distribution of forecast earnings narrows or skews higher
- Interest rates decline (assuming a positive earnings outlook)

However, the bulleted rationale above fail to explain how GameStop (briefly) commanded $30 billion and Bitcoin over $1 trillion in market cap. As with any simple model, there are residuals; perhaps sentiment, for one. That seems a fair assessment when investors are eager to buy or hold with "diamond hands" regardless of how high the price.

Sentiment rules many purchases, but stock prices are (supposed to be) set more robustly. There are almost always many bidders and many sellers trying to buy or sell the exact same thing at the same time. And, the only value of a stock is in the wealth in generates. While this tends to anchor stock prices to rational valuations, it does not prevent bubbles.

Limitations to Market-Cap Weighting

A position at market weight tends to stay at market weight (although other volatile positions may disrupt this). Yet, the paradox here is that as the market cap increases, a portfolio manager is supposed to increase the weight of their position as the price increases rather than buy more of the stock when the price is lower.

If you assume the stock market is perfectly efficient, market-cap weighting makes sense and stock picking does not. Nobel Laureate James Tobin referred to owning all assets at market-value weight as "super-efficient." Another Laureate, Bill Sharpe, coined this the Global Market Portfolio ("GMP"). In theory, the GMP is an optimal risk-adjusted portfolio on the efficient frontier. In practice, no one can even be aware of every asset of value, let alone mark and invest in those assets.

In the year 1324, Mansa Musa took off from his kingdom of Mali on a pilgrimage to Mecca. Unsuspecting merchants in Egypt, who may have prudently socked away much of their savings in gold, were (at first) overjoyed at the arrival of an almost endless caravan laden with gold and more so by the foreign King who doled it out with equally unlimited abandon.

It turned out that there was a lot more gold in the world than in the previously-functioning Egyptian economy. The flood of new gold supply cratered the price of gold and, with it, trade. The price of gold did recover...over a decade later.

A (slightly) more recent note of caution comes from the South Sea Bubble of 1720, which caused Sir Isaac Newton to personally lament "I can calculate the motions of the heavenly bodies, but not the madness of the people." At its height, the South Sea Company's market cap was worth more than all of the land in England, twice over. An investor buying into the London stock market at market weights during the height of this bubble would have soon lost most of their money.

When Diversification Leads to Concentration

Although it does not rise to the same extreme, index concentrations in a handful of stocks are causing practical issues for active fund managers. A fund would need to hold positions of Apple or Microsoft in excess of 10% each to overweight these stocks relative to the Russell 1000 Growth index. At the end of February, the top 10 holdings constituted almost half, and the top 3 holdings almost 30% of the index. In the MSCI Canada Growth Index, Shopify is the top holding with 15% weight, down from near 20% a month ago. A portfolio tracking this index is stock between a rock and a hard place.

These concentrations are problematic because they violate the presumption that market-cap weighting safely diversifies. Of course, the GMP theory does not support half-measures. There is no guarantee that owning a slice of the broader investment universe at market-cap weights will produce a portfolio anywhere close to the efficient frontier. Index concentrations should raise concern over whether fund managers are under pressure to hold portfolios they view as sub-optimal.

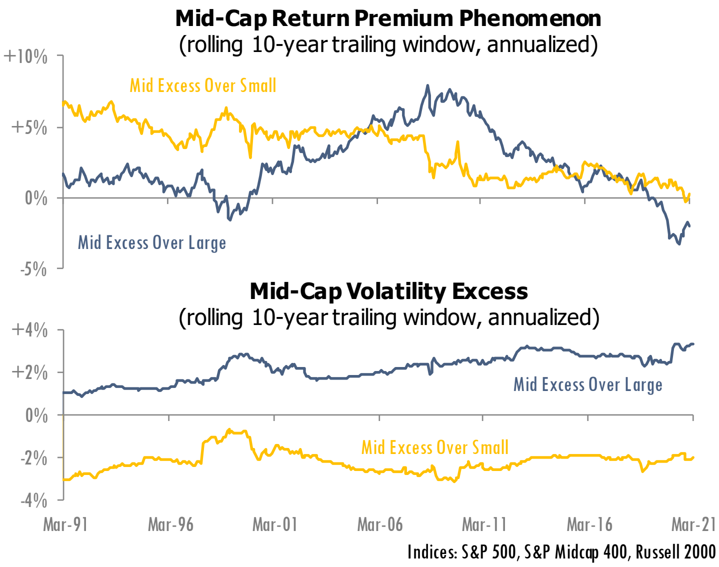
This problem, too, is nothing new. In the nascent days of the US stock market, financials constituted over 95% of the market. From the mid to late 1800's, transportation dominated as much as 70% of the market. Energy, information technology, and telecom have all taken the top spot at least once, and represented 25% or more of US stocks. In 1989, Japanese stocks peaked at 45% of the world's market cap before they crashed. It took 26 years for the Tokyo Stock Exchange to regain the same market cap in US dollar terms. In March, Japan represented 7.4% of global equity value.

Mega, Large, Mid, Small, and Micro?

Equity funds and indices are segregated into three major cap ranges that, together, constitute around 99% of total public equity market capitalization. Large-cap is by far the most popular segment for good reason; it represents around 70% of the total market, according to MSCI. Small-cap and mid-cap stocks are often combined into a "SMid"-cap category.

	Market Cap ($ bn) of Clusters		
%-iles	SMid	Large	Mega
15th	$ 0.3	$ 104	$ 287
Median	$ 3	$ 142	$ 339
85th	$ 21	$ 215	$ 706
Count %	94%	5%	1%
Cap %	43%	35%	23%

Fundamentally, there are pros and cons for investing at different cap ranges and segmenting stocks by market cap requires little judgment versus assigning growth and value labels. Generally, companies with high market caps can raise more cash through an equity offering. Their stocks tend to trade at higher dollar volumes, with greater liquidity and less volatility. Their businesses are generally more diversified and covered intensively by analysts. Small-cap stocks tend to have more growth potential because they have more room to expand vertically within their industry and horizontally across industries. A small-cap company might double sales by doubling its market share with a new product; a large-cap company would have to grow the addressable market to double sales if it already commands a majority market share.



The table above shows how market cap and performance characteristics among US stocks cluster into cap ranges (based on k-means analysis of monthly returns). Across the (trailing 3-year) period, a 3-center cluster sorting produces a good fit, but the thresholds separating the categories do not align with the standard small-mid and mid-large thresholds, which would be very roughly around $5 billion and $20 billion, and put 15% of US equities into each of the two lower cap buckets. Instead, the results of the analysis divide the market into a more even set of buckets by market capitalization totals, and a less even set by the number of stocks in each category. Although the results shown are for the most recent 3-year period, they tend to produce similar results in earlier periods.

More compelling is the return phenomenon in mid-cap stocks. It would make sense for their performance to lie between large-cap and small-cap stocks, on average. Although that is the case for volatility, US mid-cap equities have, until recently, outperformed both small-caps and large-caps across almost every 10-year window within the past 4 decades. Fundamentally, this could be ascribed to mid-caps occupying a sort of sweet-spot in terms of getting a majority of the benefits from both small-caps and large-caps, while garnering a minority of their respective deficiencies. Statistically, mid-caps have had higher earnings growth rates and lower debt ratios than larger and smaller companies [Fiera Capital].

Other Approaches

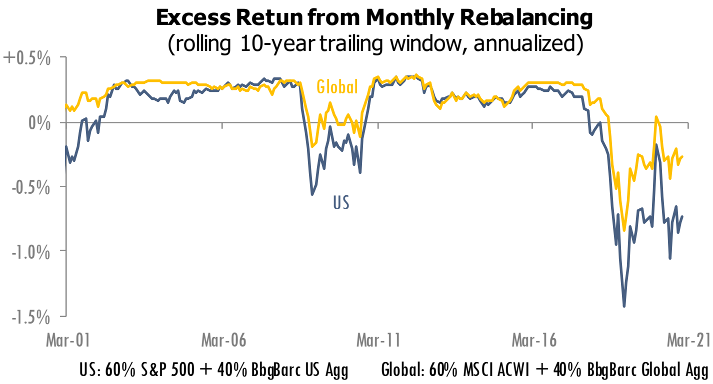
Market cap is far from being the only metric adaptable to portfolio weighting. The Dow Jones Industrial Average uses price weighting; any factor (e.g., volatility) can provide a weighting scheme in place of, or in conjunction with, cap.

An equal-weight index will outperform a market cap index in a bear market and underperform in a bull market. Over the long term, the two approaches should converge. However, equal weighting requires more work to maintain; an equal-weighted index fund will experience a headwind from rebalancing. Equal weighting also tends to produce higher volatility and more frequent extreme returns (higher kurtosis). A price-weighted index will not suffer much rebalancing drag, but volatility and kurtosis are likely to fall between a market cap weight and equal-weight approach.

Standard & Poor's uses market cap weights for the S&P 500 Index, and adjustments for market float were added in 2004. This reduces a stock's weight proportional to the number of shares held by company executives, government entities, or cross-held by other companies. Since the portion of shares locked up is fairly stable over time, this tends not to cause problems for rebalancing. Also, it can reduce frictional costs by giving a smaller relative weight to stocks that tend to be less liquid than market cap alone might suggest. While there are good reasons for float adjustments , the extra securities still exist whether or not they are freely traded. Much like Mansa Musa's Haj, the floodgates may open unexpectedly.

For once, in the first quarter of 2021, mid lagged small and large. Mid-caps have done well in post-recession recoveries, so 2021 may make or break this longstanding trend. And, while 40 years is a significant timespan for a trend, it does not mean the phenomenon will persist. Interest rates have trended lower over this entire period until 2021 as well.

Market cap weighting is pervasive within an asset class, but across asset classes, it is common for funds to employ fixed weights or target ranges. The quintessential example is a balanced fund mixing 60% equity with 40% fixed income, but prime examples include target date, real assets, and multi-sector bond funds. Rebalancing between fixed allocations is touted as an enhancement, and often is.



The expected results of rebalancing are clear. If markets revert over the long term, cyclical bumps along the way present opportunities to buy low and sell high. This is in contrast to market-cap positioning, which works best when momentum is strong and mean reversion is weak due to new market paradigms taking over. Like the mid-cap premium phenomenon, rebalancing between equities and fixed income is also stumbling. Although this is expected in periods of market stress or other instances where momentum spikes, the severity eclipses the dip surrounding the 2008 financial crisis and started well before the pandemic-induced market crash in 2020.

Your Investment Universe

Global markets are more interconnected than they were in the 14th or 18th centuries, but wealth is relative and remains local to an extent. When you miss out on Bitcoin as it appreciates a thousand-fold, it might not matter to you or affect your life in any demonstrable way if no one you know benefitted. If, instead, all of your friends became independently wealthy off bitcoin while you missed out, it might haunt you for the rest of your life. That's why it's a good idea to put in $5 for the office lottery pool, but a bad idea to play the lotto by yourself. Weighting securities by their market cap exposes you to your share of wealth being generated or destroyed by capital commitments.

Inclusion Philosophy

	Wealth Generation	Economic Rent
Equities	Yes	Yes
Fixed Income	Yes	Yes
Commodities	Yes	No
Currencies	Yes	No
Derivatives	No	No

The philosophical divide on investment universe may also be drawn around what makes something an investment rather than a gamble. An investment is something that makes use of the time-value of money; it requires economic rent attached to the commitment of capital, rather than just an agreement to a wager. What should and should not be included in an investment portfolio, whether for an individual or a pension plan, could be defined along this line.

Under this philosophy, the Global Market Portfolio would consist of all of the things that are expected to possibly generate wealth, but not the things that simply transfer wealth. So, stocks, bond, and cryptocurrencies go in, but derivatives and lottery tickets do not belong. Instead of a truly global Market Portfolio, perhaps the universe of investments would be best defined as those that might generate local wealth around you, threatening to devalue your wealth in relative terms.

Regardless of philosophy, inclusion is also a function of accessibility. At their formative stages, new asset classes are seldom accessible to all investors; relatively few investors may even be aware of the asset class. Even many mature asset classes, such as private equity, remain out of reach for most people due to liquidity and cost-efficiencies of scale.

As with any big tactical or top-down allocation decision, results vary with timing. Right now appears to be a more unusual and critical time for such decisions. Economies are on the rebound amid massive stimulus, interest rates seem to have bounced off the bottom of a 40-year downtrend, and growth may be ceding its dominance to value after a powerful run.

We will see in years to come whether these represent cyclical extrema or inflection points of sustained momentum into a new normal. Market-cap weighting diversifies away some of this risk, but is not bullet-proof. Relying on market cap alone may not be enough to successfully maneuver your portfolio through these shifting sands, but it is a good place to start.

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