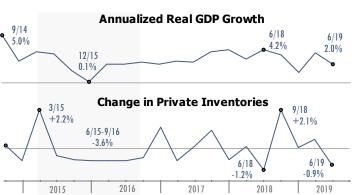


The US Economy: "Inventory Sale!"

The pace of economic growth slowed to 2.0% for the second quarter, from 3.1% the quarter prior. This deceleration was primarily due to downturns in inventory investment, exports, and nonresidential fixed investment, partially offset by an acceleration of personal consumption expenditures (for goods and services) and federal government spending. Changes in private inventories subtracted nearly a full percent from headline growth (-0.91%).

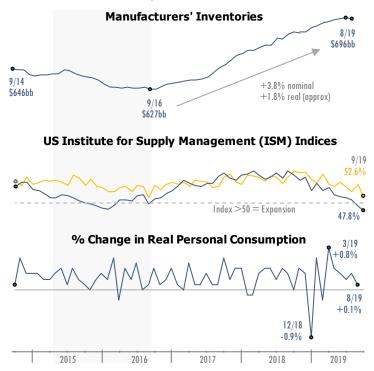
A contraction in manufacturing activity was all but certain given increased levels of manufacturer's inventories, as we briefly discussed in last quarter's issue. From the trough of



the current manufacturing cycle in 2016 through July, inventories have grown at roughly 1.9% above inflation. Incremental data for Q3 suggest that the Q2 contraction in inventory spending will likely persist for some time. It is somewhat unsurprising, then, that the September Manufacturing Report on Business released by ISM showed weakening conditions in manufacturing broadly. The non-manufacturing (NMI) index slowed as well.

Inventories are a significant driver of quarter-to-quarter volatility in economic growth; the extent to which inventories impact long-term growth itself is more complex. The "manufacturing recession" of 2015 provides an example; following a brief surge, inventories contracted steadily through 2015 and most of 2016. Real GDP growth declined, nearly to zero in the middle of that period. However, end consumer demand did not contract; in fact, it barely slowed. If end demand is strong, inventory spending must stabilize and rise, as it did from 2017 to date. A recession did not occur.

The inventory cycle has two important linkages to the economy – first, through corporate earnings. If a business can fulfill end demand with less inventory, profitability improves. Further, if demand actually slows, earnings will be impacted less with lower inventory levels. On the other hand, if demand increases, businesses with inadequate inventory face po-



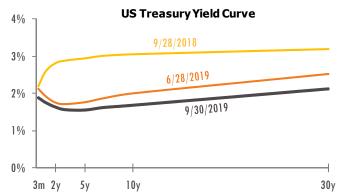
tential loss of customers to competition. Businesses continuously balance these risks, which means that inventory levels quantify business sentiment – the current level of optimism among key executives. Business sentiment is waning rapidly, while consumer sentiment (measured by the Conference Board) remains relatively high.

The second connection is through employment. The warehouse is essentially the first "customer" in the supply chain, the one that activates the production line. If inventories continue to slow, one would expect layoffs to follow, and that in turn can impact consumer demand. Payroll numbers for September showed no sign of this, but employment is typically a lagging indicator of economic performance.

Why the pessimism? Comments included in the PMI and NMI surveys point to one major cause – the "trade war" with China. Business executives are not broadly convinced current trade policy will achieve its objectives (falling exports and steady imports seem to bear this out). However, tariffs (and threats of tariffs) are disrupting global supply chains, making it difficult for businesses to make informed decisions on production.

The US Bond Market

The market was proven correct by the Fed's back-to-back rate cuts in July and September, leading the front end of the curve below 2% as the Fed targets a range of 1.75% to 2.00%. Fed funds now expect the target overnight policy to reach a range of 1.25% to 1.50% at the March meeting, or May 2nd at the latest. Short-term rates moved about 25 bps lower in direct response, though the 2-year stubbornly fell just 12 bps to end the quarter at 1.63%. Beyond the 2-year, the curve flattened. The 10-year yield declined a full quarter point to 1.68% and the 30-year raced past even the front end of the curve, closing the quarter 40 bps below where it began.



While lower yields prompted strong returns across all major fixed income benchmark indices, credit spreads had little impact. Investment grade US corporates remained at a 122 bps over Treasuries. High yield spreads were also guiet, ranging

| US Bond Index Returns | | | | | |
|------------------------------|-------------|--|--|--|--|
| <u>Bimbrg Barclays</u> | <u>3Q19</u> | | | | |
| Aggregate | 2.27% | | | | |
| Interm. Gov't | 1.18% | | | | |
| Long Gov't | 7.83% | | | | |
| TIPS | 1.35% | | | | |
| Municipal | 1.58% | | | | |
| Interm. Credit | 1.70% | | | | |
| Long Credit | 5.62% | | | | |
| High Yield | 1.33% | | | | |
| MBS | 1.37% | | | | |

corporates remained at a 122 bps over Treasuries. High yield spreads were also quiet, ranging from 3.77% to 4.52%, but ending the quarter tighter by 5 bps to close at 4.02%. Investment grade and high yield issuance are on pace to match 2018 thanks to strong September volume.

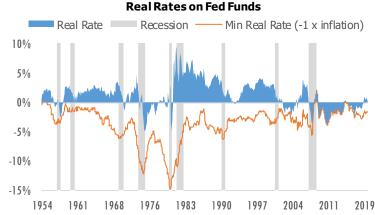
Former Fed Chairman Allen Greenspan has prophesized it is only a matter of time before negative rates are imported to the US [CNBC]. Is apprehension around a negative interest rate policy (NIRP) justified or just fear of the unknown? If banks can't profit from holding clients' money, they go from offering a spread below their average lending rate to offering a spread above their cost to safeguard cash. This has already happened. Under a Dodd-Frank program that ended in 2012, non-interest-bearing deposits could be FDIC-insured without limit; the result was a negative savings account rate commensurate with the cost of FDIC insurance. Of course, savers unwilling to pay a negative rate have a choice. They can rent a safety deposit box and pay a fee proportional to the period of time and volume of money stored.

Zero is an important inflection point for interest rates, but it is not the only one, and perhaps not even the most meaningful. Savers become incentivized to park their money under the proverbial mattress once rates enter negative territory. However, they are incentivized not to save their money in the first place when interest rates run below the rate of inflation. Yet, in practice, Germans did not collectively liquidate the entirety of their savings accounts once interest rates there went negative, just as Americans did not convert all of their cash to gold when short-term rates began to lag inflation.

Negative interest rates feel unnatural, even un-American. Yet, how else can central bankers provide easy monetary policy in a deflationary world? Historically, post-recession Fed Funds rates have not been consistent in nominal terms, but have been in real terms. The real rate on Fed Funds dipped into negative territory in response to nearly every recession. Without NIRP, the real rate can only go as low as inflation is high. Under deflation, NIRP becomes necessary to sustain a negative real rate. Quantitative easing and forward guidance are useful tools, not direct replacements for negative real yields.

The President is a vocal proponent of NIRP, tweeting "the Federal Reserve should get our interest rates down to ZERO, or less, and we should then start to refinance our debt. INTEREST COST COULD BE BROUGHT WAY DOWN, while at the same time substantially lengthening the term" [WSJ]. Perhaps; but the Fed might be the biggest purchaser of short-term debt at negative yields in this scenario through open market operations. And, the yield curve could steepen dramatically if monetary policy becomes overly accommodative.

The US is not in the same position as Europe and Japan where long term debt is indeed yielding negative rates. And part of the reason why yields have gone substantial-



ly negative on German Bunds and Japanese Government Bonds is that buyers of these negative yielding instruments have been able to reap a positive yield (higher than on US debt) using currency derivatives. Without this trade into positive yield, demand for negative yields may vanish. The remaining index funds, pensions, and other inelastic purchasers of long-term debt should not overwhelm a generous supply promised for the foreseeable future by massive sovereign debts.

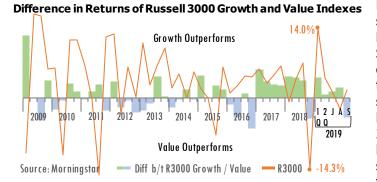
The US Stock Market

Trade tensions continued as a major influence in the US stock market. Investors were encouraged at the end of Q3 by news of plans for October talks with China's top trade negotiators as well as reports that the Trump administration was *not* planning to block Chinese companies from listing on US exchanges. Market volatility hit 2019 highs driven in turn by trade optimism or pessimism and the extent of Fed cuts beyond 3Q. Although not as strong as in Q2, both the Dow and the S&P 500 posted positive returns for Q3 while the Nasdaq returned a loss.

| US Stock Indices - Total Returns | | | | | | | |
|----------------------------------|-------|------------------|-------------|--|--|--|--|
| Large-cap Stocks | 3Q19 | Mid-cap Stocks | <u>3Q19</u> | | | | |
| S&P 500 | 1.70% | S&P Midcap 400 | -0.09% | | | | |
| Russell 1000 | 1.42% | Russell Midcap | 0.48% | | | | |
| Growth | 1.49% | Growth | -0.67% | | | | |
| Value | 1.36% | Value | 1.22% | | | | |
| Broad Markets | | Small-cap Stock | S | | | | |
| S&P 1500 | 1.53% | S&P Smallcap 600 | -0.20% | | | | |
| Russell 3000 | 1.16% | Russell 2000 | -2.40% | | | | |
| Growth | 1.10% | Growth | -4.17% | | | | |
| Value | 1.23% | Value | -0.57% | | | | |

Last quarter we noted the increasing number of US firms indicating

the potential for falling profit margins. That turned into reality with the companies in the S&P 500 reporting an overall drop in earnings of 0.35% after Q2 reporting concluded. Once again, negative guidance is higher than 5-year averages, with 82 firms cautioning in Q3. Estimates are lining up for a third consecutive quarter of earnings declines, projected to be in the neighborhood of -3.7% to -4.0% [FactSet].



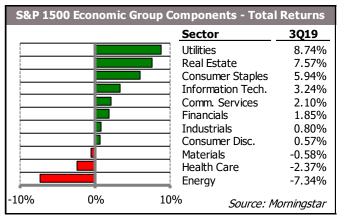
Returns for the quarter across major indexes aligned by size. Large caps were the top performers as the difference between growth and value names continued to contract. Small cap returns were negative and came with notable outperformance by value names. Dissecting the quarter, two rotations are revealed in September: from large caps to small caps and from growth to value. Small cap stocks had been lagging their large- and mid-cap peers throughout 2019 on fears of a US recession, which many believe would have a larger impact on the more domestically-focused segment of the market. With the Fed cutting interest rates two times in Q3, recession fears appeared to ease. Since

monetary stimulus is generally considered to favor the growth sector, September's value rally appears incongruous with the recent Fed cuts. One explanation is that the spread between value and growth had become too wide for investors to ignore, driving assets back – at least for one month – to value.

Defensive sectors led strongly in Q3. With recession fears escalating earlier in the quarter and lower interest rates materializing by the end, investors favored the stable, dividend-producing utilities and real estate sectors. The safe haven of consumer staples rounded out the list of top-performers, a possible indication that investors are betting that the US economy is at or nearing the end of its growth cycle. Also considered a classic defensive sector, health care was a notable out-

lier over the quarter. With talks of drug pricing reform and presidential candidates using proposals for revamping the US healthcare system to differentiate themselves in a crowded field, the sector declined in all three months of the quarter, its longest losing streak in three years. Energy was the worstperforming sector for a second quarter in a row as Saudi oil output recovered more quickly than expected from a mid-September attack and slowing economic growth in China led to predictions of decreasing demand.

IPO activity dropped off in Q3. The 39 deals that raised \$10.8 billion represented a \$0.4 billion decline from the same period in 2018 and an even more substantial \$14.3 billion drop from last quarter. Once again, activity in technology and biotech



names represented a majority of new offerings. The drop in filings as well as poor aftermarket returns (the Renaissance IPO ETF returned -10% in 3Q) suggest that IPO activity will end 2019 at lower levels than previously expected [Renaissance Capital]. The number of publicly-traded companies has been in a steady decline for 20 years, as much due to fewer IPOs as to increasing de-listings. But with the total value of public companies increasing, it seems that another long-term trend is consolidation in US businesses. Whether investors look at this as a built-in diversification benefit or detrimental loss of asset allocation is yet to be seen.

International Markets

Global markets see-sawed through the third quarter as trade and monetary policy events unfolded in the context of a weakening global economy. On the back of slowing economic activity, subdued inflation and volatile financial markets, central banks remained accommodative across the globe. As synchronous global easing gathered pace and trade tensions induced flight-to-safety flows, long-term yields fell across the board in most developed economies, bolstering fixed income returns. This deterioration in risk appetite held back equities as the MSCI All Country World index registered a negative

| Foreign Stock & Bond Indices - Total Returns | | | | | | |
|--|--------|------------------------|--------|--|--|--|
| MSCI Broad Indices | 3Q19 | Barcap Global Indices* | 3Q19 | | | |
| MSCI ACWI ex-US | -1.80% | Global Aggregate | 0.72% | | | |
| EAFE (Developed) | -1.07% | Pan-Euro | -1.04% | | | |
| Emerging Markets | -4.25% | Asian-Pacific | -0.02% | | | |
| | | Eurodollar | 1.77% | | | |
| MSCI Regions | | Euro-Yen | 1.10% | | | |
| Europe | -1.80% | Other Currencies | 3.10% | | | |
| Japan | 3.13% | * Unhedged | | | | |
| Pacific ex-Japan | -5.20% | - | | | | |
| Latin America | -5.61% | | | | | |

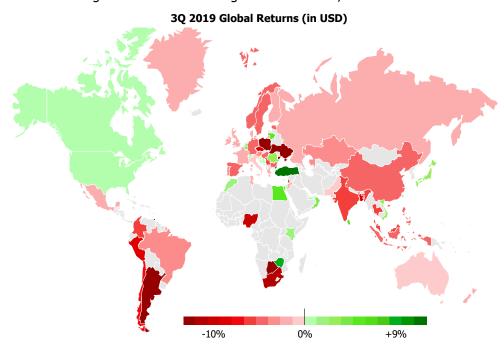
quarter. Emerging markets were worst hit. With little progress to report on US-China trade talks and weakening global consumption cues, financial markets seem delicately perched heading into the final three months of the year.

Europe

Macroeconomic conditions in the Eurozone continued to deteriorate. After GDP for the region barely grew in the second quarter of 2019, things didn't improve in the first two months of Q3 either – industrial output in the single currency area contracted 2% YoY in July, far below expectations.

Most economies across the euro bloc lost steam and the largest, Germany, contracted by 0.1% in Q2 amidst a global slowdown. German factory output in July recorded the largest annual fall among major European economies with a 5.3% annual contraction – the worst in 7 years. The regional powerhouse is the most export-oriented economy and continues to suffer from rising trade uncertainties and weakening demand.

Responding to these sustained weak cues, the European Central Bank stepped up efforts to stimulate the economy. At its September meeting, the ECB cut the main deposit rate by 0.10% to a record low of -0.50% – essentially penalizing lenders for holding on to idle cash. Alongside the rate cut, the ECB announced a new quantitative easing program through



which they'll buy €20 billion worth of securities every month. However, economists have raised concerns that monetary policy has been stretched to the limit.

While negative yields are not ubiquitous yet, the phenomenon seems to be spreading – most government debt rates in Germany and Switzerland have dived into negative territory. Even in countries with lingering concerns about enormous public debt piles such as Italy (where public debt-to-GDP is 132%), short-term yields are negative. As measured by the Bank for International Settlements (BIS), the amount of bonds trading at negative rates in the third quarter swelled to a record \$17 trillion (~20% of global GDP).

With Boris Johnson at the helm, the

odds of a no-deal Brexit rose. In August, the divisive Prime Minister successfully suspended Parliament, significantly limiting time for debate before the October 31st deadline. Although the Bank of England acknowledged that Brexit uncertainty and a slowdown in global growth had weakened the economy, it held rates steady at 0.75%. The BoE, however, did state that any further delays in leaving the EU could significantly dampen the economy and require it to step in and ease monetary conditions. The resilience of the UK's domestic economy in the face of Brexit remains one of the few bright spots across the Atlantic – job reports for July saw unemployment fall to 3.8%, the lowest since the mid-1970s. Workers also received the biggest average pay increase in a decade, up 4% YoY.

Americas

Argentinian markets recorded a precipitous fall in August. The country's main stock index lost almost half its value after a shocking primary election defeat for market–friendly conservative president Mauricio Macri. Fears of another potential default caused bond yields to spike. The 100-year dollar-denominated bonds that Argentina sold in 2017 dropped from 74 cents on the dollar to 54 cents within hours of the announcement.

In Brazil, the government slightly raised its 2019 economic growth forecast and said the worst for the economy is probably behind it. However, it showed no sign of willingness to ease up on its commitment to austerity and strict fiscal discipline. The growth outlook for this year was raised to 0.85% from 0.81%, but the government's three main fiscal rules (the spending ceiling, the primary deficit goal and the "golden rule") will stay in place. The spending ceiling caps growth in public expenditure at the previous year's rate of inflation. The primary deficit target this year is 139 billion reals, and the "golden rule" bars the government from issuing debt to cover current spending.

The Canadian economy unexpectedly stalled in July following four straight monthly advances, as GDP remained almost unchanged at 1.97 trillion Canadian dollars (US \$1.49 trillion). The biggest drag was in the mining, quarrying and energy exploration sector which declined 3.5% to C\$148.82 billion. In August, Canada's labor market experienced one of its biggest employment gains in a decade. The economy added a net 81,100 jobs, while market expectations were for a 15,000 increase. Almost two-thirds of the jobs added were in the part-time category. At the same time, August's annual inflation rate slowed slightly, although it remained close to the Bank of Canada's 2% target for a sixth straight month. The CPI index increased 1.9% on a year-over-year basis, compared with a 2% rise in the previous month. The Bank of Canada kept its benchmark interest rate unchanged at 1.75% in September, and signaled it would keep its options open for its next move given heightened trade tensions.

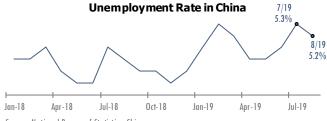
Asia

As in Europe, core inflation measures in Japan remained tepid, with prices rising only 0.4% through July and August versus a year earlier. The Bank of Japan, however, did not announce any stimulating measures at its September 18–19 policy meeting. The inaction can be attributed to concerns that increasingly negative interest rates will not lift inflation to the BOJ's 2% target. Some economists believe that inflation could remain muted because the much-delayed consumption tax hike (from 8% to 10%) may discourage spending.

China's economic growth decelerated to its slowest pace since 1992, weakened by trade tensions with the US and businesses that held back from making big investments despite encouragement from Beijing. The economy grew by 6.2% in the second quarter, down from 6.4% in the period before.

Economic activity cooled further in the third quarter. China's manufacturing purchasing managers index (PMI) fell in August from the previous month by 0.2% to 49.5%. The non-manufacturing purchasing managers index was at 53.8%, 0.1% higher than the previous month's, indicating that non-manufacturing growth accelerated slightly.

Industrial output and retail sales data pointed to sluggish demand and low confidence among businesses and consumers. Industrial output rose 4.4% in August YoY, far below economists' expectations of 5.2% growth.



Source: National Bureau of Statistics, China

The property market was one of the few bright spots. Homesales growth was resilient in August and, for the January-August period, it rose 9.9% from a year earlier, higher than the 9.2% gain for the first seven months of the year. Another silver lining was the unemployment rate, which is based on an official survey of China's large cities. It edged down to 5.2% from July's 5.3%, which was the highest level since the government began publishing the data last year.

As disappointing economic data trickled in, the central bank reduced the reserve requirement by 50bps, the third such move this year, and lowered the amount of reserves China's largest banks are required to set aside to 13%. The move will free up 900bn yuan (\$126bn) to entice lenders to finance projects that might spur the economy.

However, new drivers of growth are increasingly uncertain as trade troubles with the US, including new tariffs, continue. In September, the US introduced 15% levies on about \$270 billion worth of mostly consumer items from China and planned to raise tariffs on largely non-consumer items (i.e., materials businesses use to produce goods) to 30% from 25% to be implemented on October 15. China retaliated by hitting items such as American soybeans and some US auto parts with higher punitive tariffs of 30% and 35%. Chinese and American officials plan to hold trade talks in Washington in early October, but it is still unclear if and when they will take place and what the outcome will be.

In Hong Kong, the prolonged social unrest led to a downgrade by Fitch Ratings of one notch to AA from AA+, with the turmoil cited as a test to Hong Kong's reputation as a well-governed and stable place to do business. The territory's economy has been slammed since protests began in June, hitting retail and tourism businesses in particular. Beijing's actions in response to the protests have raised concerns that barriers between Hong Kong and mainland China have weakened, which could threaten the city's status as a financial hub. July data showed an 11.4% fall in retail sales, while August data noted a 40% plunge in visitor arrivals.

Even India, the fastest growing major economy of 2018, reported a material slowdown in recent months. Second quarter GDP grew at 5% in 2019 – the weakest in six years. Consumption, the main driver of growth, has stagnated in recent months and manufacturing activity remains subdued. Equities recorded a drawdown of almost 10% in the first two months of the quarter as investors worried about government inaction. However, a long-awaited corporate tax cut announcement helped equities rebound. It remains to be seen if such supply-side focused policies can actually help boost consumer sentiment and reignite demand.

Focus On: Outsized Potential of EM Small Caps

Developing economies have been a powerful engine of global growth during the past half century. Led by China and India, these countries have accounted for 60% of the world's GDP growth over the past 15 years and more than half of new consumption. While outsized growth has been a near certainty over the past decade for emerging economies, corresponding equity returns have been a roller coaster ride not for the faint of heart.

In all but two of the past fourteen years, the most commonly used EM index, the MSCI Emerging Markets index, has registered double-digit percentage gains or declines, with an average magnitude of 26.8% up or down. To most outsiders looking in, the only constant in emerging markets investing seems to be the volatility that comes with it. In spite of this, since the 1980s (after the Latin American debt crisis) capital flows have increased – from less than 1% of EM GDP in 1980 to a peak of almost 9% by 2006. As several developing countries liberalized their equity markets, US investors were allowed relatively unfettered access to them.

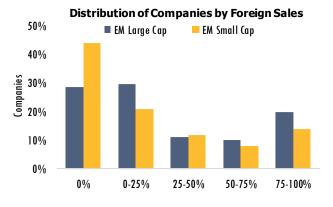
The rationale for allocating to emerging markets has rested on three pillars: Superior economic growth, low correlation within emerging markets and across asset classes, and relative scarcity of information. But as the markets traditionally thought of as "emerging" have become more mature and integrated into the global economy, today's investors may need to look down the capitalization spectrum to find the same advantages.

No Place Like Home

As a result of the general long-term success of traditional emerging markets, most of the component countries have become more integrated into the world economy. Consequently, their largest and most successful companies have expanded beyond domestic markets to export and invest globally. The performance of these stocks is no longer primarily driven by local factors. Electronics, automobile and consumer-related names such as Taiwan Semiconductor and Samsung now derive a substantial portion of their revenues from developed economies like the US. The MSCI EM index has a high concentration of such large-cap firms who generate a material portion of their revenues abroad, as well as companies within energy and financials, whose prospects are more reliant on

global risks and regulations than on home-country growth.

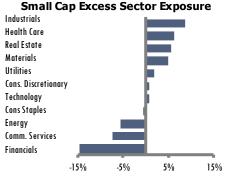
Within the MSCI EM small-cap index, almost half of all companies derive their revenue exclusively from their home economy, compared to less than 30% of large caps. In addition, small-cap companies tend to have simpler business models that are less correlated to global trends. A domestically focused Indian consumer goods manufacturer is far less sensitive to global interest rates than a large-cap Indian IT name like Infosys, which derives over 60% of its revenue from North America (compared to 2.5% of from India). The limited impact of exchange rates on small cap revenues provides a natural hedge against currency volatility, compared to large caps.



Historically, the sectors most aligned with domestic demand during the development of a country are industrial, health care, real estate and consumer discretionary stocks. These sectors capture urbanization within these economies, the local demographics and their consumption patterns. The dividend yield investors can expect from EM small caps as a result of these weights is quite surprising; at 2.8%, it is almost in line with EM large caps (2.9%) and materially higher than US small caps (1.7%).

Fertile Hunting Ground for Active Managers

A number of factors come together to make EM small caps a fertile hunting ground for alpha. A wide opportunity set of thousands of potential investments with little to no sell-side coverage sounds like the perfect set-up for active man-



agers. The emerging market small-cap asset class is an enormous investable universe of over 1,700 companies spread across 26 countries. The space is thinly covered by analysts, allowing for sustained pricing inefficiencies. And managers aren't complaining – according to Ori Ben-Akiva, the head of international strategies at Man Numeric, "Quantitative investing is a constant fight against efficiency. Within US markets, there is an endless amount of data, and inefficiencies are almost impossible to harvest today. The limited data and lack of coverage within the EM small-cap space creates mispricings and inefficiencies we can exploit."

Institutional quality research and coverage in the EM small-cap space can be hard to find. Compared to well-researched large caps in the EM arena, the slow dissemination of information in the small-cap subset can magnify mispricing (and consequently, opportunity). According to FactSet, while 98% of EM large caps receive coverage from at least one sell-side analyst, almost 50% of small-cap names are not covered at all. The magnitude of coverage also varies widely; the average large cap receives coverage from around 20 analysts, but small caps average less than 2.5 analysts.

Also highlighting the size of the active management opportunity is the disparate nature of returns within EM small caps. Cross-sectional volatility (CSV), which measures the dispersion of individual stock returns within an asset class over a

fixed period, represents the opportunity to outperform a benchmark. If all stocks behave similarly, the CSV levels are low and there is little opportunity to deviate from the market. Conversely, high CSV levels allow for pronounced opportunities to outperform. Over the past five years, EM small caps have displayed some of the highest levels of cross-sectional volatility across all asset classes. Coupled with lower sell-side coverage and dramatically fewer active managers in the space, the lags between changes in fundamental value and when those changes are accurately reflected in market prices are both notable and exploitable.

Scarier Than It Looks

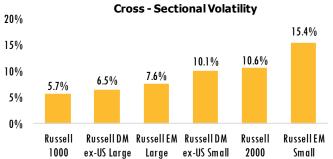
At first glance, the seemingly wild swings in emerging equities would alarm even the most risk-seeking of investors. Traditional metrics such as standard deviation may raise concern, but a deeper dive into understanding the composition of this risk highlights exactly why it might be one worth taking.

Investors often look at emerging economies as a single entity, but each market is unique. This heterogeneity of emerging markets has consistently led to much lower historic pair-wise correlations – emerging economies do not move in tandem

| | Pairwise Correlations - 2009 to 2019 | | | | | | | |
|----------|--------------------------------------|-------|--------|--------|--------|----------|--------|-----------|
| | China | India | Brazil | Mexico | Russia | S. Korea | Turkey | Argentina |
| China | | 0.53 | 0.57 | 0.55 | 0.55 | 0.60 | 0.42 | 0.36 |
| India | | | 0.47 | 0.55 | 0.42 | 0.56 | 0.45 | 0.27 |
| Brazil | | | | 0.59 | 0.65 | 0.69 | 0.54 | 0.42 |
| Mexico | | | | | 0.59 | 0.63 | 0.47 | 0.39 |
| Russia | | | | | | 0.60 | 0.41 | 0.41 |
| S. Korea | | | | | | | 0.59 | 0.42 |
| Turkey | | | | | | | | 0.44 |

with each other most of the time. For example, growth in Russia (a resource-rich exporter) and growth in India (primarily a service-driven economy) is much less correlated than growth between the UK and Japan, where correlation has been over 0.70 over the past 10 years. Volatility within the index, in most years, is driven by idiosyncratic concerns arising from a handful of countries, rather than any overarching distress across all emerging markets.

Furthermore, emerging market small-cap stocks exhibit relatively low correlation to domestic large-cap and small-cap stocks. The correlation of EM small caps to developed markets will likely continue to be lower than the standard MSCI EM index due to a number of factors we have



highlighted – the relative lack of foreign ownership, limited potential for capital outflows and insulation from global demand trends. The insulation from volatile global capital flows is considered as one of the main reasons why, over the past 10 years, EM small caps have delivered comparable returns to large caps but with lower standard deviation.

The Risk Trade-off

While growth expectations are high across most major emerging markets, the risk drivers across economies can be quite distinct -i) exposure to developed markets, ii) domestic factors, iii) currency markets and iv) commodities are the main risks, with each country having a different degree of sensitivity to these factors.

A major domestic risk across emerging markets such as Russia, China and India is government ownership of large public enterprises. Large state-owned enterprises (SOEs), which are many investment managers' worst nightmare, are conspicuous across EM indices. From financials to natural resources, these companies are often more aligned with government interests. The small-cap universe, on the other hand, has limited exposure to SOEs.

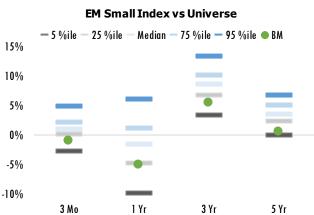
Small caps also provide a hedge against developed market trends, currency fluctuations and capital outflows, relative to large caps. When currency storms hit, EM small caps have a sturdier umbrella than large caps. On average, the dollar-based small-cap premium was 0.40% higher annually than in local terms over the past decade.

With all these positives, one might ask why investors haven't jumped into the asset class en masse? Apart from the usual concerns of size and illiquidity in small caps, a major risk for emerging market small caps is geographic concentration – 79% of the index is concentrated in Asia alone. In case of a secular growth slowdown in the continent, however unlikely, EM small caps could face a hard landing. Over the past 18 months, we have witnessed China and India losing steam, but for very different reasons; while China's growth slowdown has been an outcome of global trade tensions and the ensuing uncertainty, India's economy has been hurt by weak consumer sentiment brought about by high unemployment and stagnating income levels. In spite of most investors agreeing that both slowdowns are cyclical, the synchronous weakness has been a major source of concern for investors and has held back returns for small caps.

Overlooked and Under-Researched, But Ready for Retirement Plans?

Given the robust growth and increasing accessibility of capital markets across Asia, Africa and South America this inefficient opportunity set will only continue to grow over time. Active management is key in the space. Returns over the past five years show that the index has consistently ranked below the median fund. 5-year benchmark returns rank near the bottom 5% of the universe. An indexed approach exposes investors to low quality, capital destructive companies which managers can screen out.

For DB plans with an appropriate risk budget, an EM small cap allocation would ideally fit into a return seeking sleeve as part of a global equity exposure. Over a long-term horizon, global allocations can benefit from the currency hedge in EM small-caps. Within a participant directed plan, this exposure can be provided through a balanced, international allocation or an all-cap emerging markets strategy, benchmarked to the MSCI EM Investable Market Index, which covers 99% of capitalization in emerging markets. This can help diversify exposure away from lagging international markets where long-term growth prospects have continuously declined over the past few years and demographic trends are expected to keep consumption muted.



EM small caps are an attractive proposition for investors looking

to diversify against trends that cast a pall over global investing such as currency fluctuations, central bank policy uncertainty or growing trade tensions. The growth, low correlation, and increasingly compelling valuations makes this segment of emerging markets a potential source of alpha in the years ahead.

