CLS's WEEKLY 3

What You Need To Know About the Markets

MARCH 27, 2019

1. Lessons from a massive road construction project to improve your personal and professional life.
2. Quality can be expensive. Luckily, an ETF offers a solution to this problem.
3. The way basketball fans select teams for their March Madness brackets has a fascinating parallel to the way many select their investments.

Market Performance (as of 3/23/2019)

Fixed Income	10-YEAR	5-YEAR	3-YEAR	1-YEAR	YTD	QTD	LAST WEEK
Cash Equivalent[1]	+0.39%	+0.71%	+1.16%	+2.08%	+0.54%	+0.54%	+0.05%
U.S. Investment Grade Bonds[2]	+3.77%	+2.72%	+2.19%	+4.68%	+2.61%	+2.61%	+0.87%
Equities	**10-YEAR**	**5-YEAR**	**3-YEAR**	**1-YEAR**	**YTD**	**QTD**	**LAST WEEK**
Global Equity Market[3]	+12.39%	+6.71%	+10.60%	+1.37%	+11.39%	+11.39%	-0.53%
Total U.S. Market[4]	+16.36%	+10.25%	+13.28%	+7.40%	+12.59%	+12.59%	-0.94%
Domestic Large-Cap Equity[5]	+15.91%	+10.98%	+13.72%	+8.59%	+11.93%	+11.93%	-0.70%
Domestic Small-Cap Equity[6]	+16.79%	+6.31%	+11.12%	+0.48%	+12.93%	+12.93%	-2.76%
International Equity[7]	+9.34%	+3.44%	+8.29%	-4.62%	+10.27%	+10.27%	-0.22%
Developed International Equity[8]	+9.18%	+2.90%	+7.46%	-3.61%	+10.53%	+10.53%	-0.32%
Emerging Market Equity[9]	+10.06%	+5.31%	+11.24%	-7.72%	+9.51%	+9.51%	+0.08%
Diversifiers	**10-YEAR**	**5-YEAR**	**3-YEAR**	**1-YEAR**	**YTD**	**QTD**	**LAST WEEK**
Diversified Alternatives[10]	+4.70%	+0.64%	+1.52%	+1.20%	+2.67%	+2.67%	-0.39%
Commodity[11]	-2.75%	-8.56%	+1.47%	-4.08%	+7.14%	+7.14%	+0.25%

[1]Morningstar Cash Index [2]Bloomberg Barclays Capital U.S. Aggregate Bond Index [3]Morningstar GblMkt Large-Mid Index [4]Morningstar U.S. Market Index [5]Morningstar U.S. Large Cap Index [6]Morningstar U.S. Small Cap Index [7]Morningstar Gbl xU.S. Large-Mid Index [8]Morningstar DM xUS Large-Mid Index [9]Morningstar EM Large-Mid Index [10]Morningstar Diversd Alt Index [11]Bloomberg Commodity Index

Week in Review

Global equity markets were generally lower last week. Small-cap domestic companies were the worst performers within equities, down close to 3%. Additionally, value companies underperformed growth. International companies beat domestic. The star performers were emerging markets which squeezed out a slightly positive return.

Following a dovish Federal Reserve (Fed) announcement that left interest rates unchanged and signaled no rate hikes for the remainder of 2019, the 10-year Treasury yield fell to 2.44%, a level we haven't seen since early 2018. This resulted in strong returns for the broad bond market. Commodities had a positive week with agricultural commodities rising amid flooding in the Midwest.

In economic news, the yield curve briefly inverted for the first time since 2007 (the 10-year yield fell below the 3-month yield). This raised market concerns about a recession, despite the continuation of relatively sound economic fundamentals in the U.S., such as the low unemployment rate. Economic weakness in Europe may have been the culprit for the inversion as the European Purchasing Managers Index (PMI) edged lower, and a worse-than-expected contraction in Germany caused some concerns. It also doesn't help that Brexit was delayed again and continues to create uncertainty for the region.

Trinity: You always told me to stay off the freeway.

Morpheus: Yes, that's true.

Trinity: You said it was suicide.

Morpheus: Then let us hope that I was wrong.

-The Matrix Reloaded (2003)

In 1994, a magnitude 6.7 earthquake struck the San Fernando Valley region of Los Angeles. There was widespread damage, but the most significant was the collapse of the Santa Monica Freeway, known for being the most heavily used freeway in the country. It carried more than 300,000 cars per day, and the shutdown was estimated to cost California $1 million per day. The initial estimate for repair time was six years, but an ambitious contractor said he could do it in six months. Was he successful or just crazy?

Courtesy: FEMA

Six Degrees of Separation

This theory states that all people are six, or fewer, social connections away from each other. More recent research has found that in today's interconnected world, the number is now four. A contractor watching the news saw the collapse and had an idea of how to rebuild the freeway, but he needed to talk to the mayor first. How could this be possible in such a time of disorder? Well, he remembered he had built a parking garage for someone who knew the mayor. But it's not enough to know someone; you need to foster relationships to build a network, which is built on trust. What is trust? It is the brain releasing a chemical called oxytocin. Put another way, it's when someone helps you dig the grave without bothering to ask why.

The Power of Three

The contractor was able to meet with the mayor the next day for 15 minutes. He presented him three keys to finishing the entire project in six months: costs, quality, and schedule. The brain loves to group items in threes, it's like candy for the brain. But, more importantly, the brain tends to forget anything beyond three things. There is a reason numbers have commas after every three digits.

The typical construction process consists of three phases: engineers draft plans, workers build, and, finally, inspectors inspect. But the contractor requested that engineers, workers, and inspectors work together from day one on every aspect of the project. The lesson: Including all involved parties at the start of a project helps eliminate redundancies, supports quality controls, and reduces time and cost. He also wanted to start the next day with a two-page contract. The mayor said that would be impossible for the government. But, the contractor reminded him that the most historic and important government contract, the U.S. Constitution, fits cleanly on four pages. So, certainly, they could draft something half that length to repair a freeway.

Employee Engagement

The contractor needed everyone to see his invisible future goals with him in order to be successful. Construction workers get paid by the day, so why would they rush to complete the project?

The mayor promised a $200,000 bonus for every day completed ahead of schedule, and the contractor promised to share the bonus with all employees. Project rewards need to align with the work being done.

Additionally, he asked the workers for suggestions on what they wanted (it may not be money). They said they wanted to have music playing around the site and to have pizza parties every Friday. The music promoted collaboration, and the pizza parties offered a way to celebrate and recognize performance during the project, not just upon completion. Such recognition gives a feeling of progress and reduces stress. The lesson: Employee appreciation needs to be personalized and spontaneous. When people are in a positive state of mind, they are better able to make decisions, improve their out-of-the-box thinking, and take criticism.

Distributed Leadership

The contractor also empowered managers to make decisions on his behalf. A train derailment had delayed a shipment of steel, and it would cost an additional $120,000 to send it by truck or cause a three-day delay. Considering they were going to make a $200,000 per day bonus, the decision was a no-brainer. But if the manager had to wait for the contractor to make a decision, it would have created bottlenecks. The lesson: Employers need to let others have the ability to move work forward.

Stakeholder Inclusion

Stakeholders are all parties that may be influenced by the project – they need to be identified and involved at the start of the project. The people living in the neighborhoods surrounding the massive construction site complained about the noise (construction was around the clock). Instead of offering solutions that may not have been appropriate for all, the contractor got all of the people into a hall and asked them what they would like – they were able to talk among themselves and agree on appropriate measures: sound-proof barriers, temporary relocations, etc.

So, did the contractor succeed? The freeway was miraculously rebuilt in 66 days – something unheard of for a government project, and the bonus payout was $24 million, shared with all of the workers.

I leave you with three key takeaways:

1. Always question every process – is there another way to do it?
2. Create a vision – a provocative picture of the future.
3. Take action – figure out what is keeping you from accomplishing your goals.

Kostya Etus, CFA
Senior Portfolio manager

Konstantin "Kostya" Etus specializes in international investments. He is a co-manager on two mutual funds (aggressive allocation and international) and manager on various separate account strategies, including Core Plus ETF and ESG. In addition, he manages 529 plans.

Mr. Etus began his career at CLS in 2011 as a Trading Specialist and became a Research/Portfolio Analyst in early 2013. In 2016, he was promoted to Portfolio Manager. Prior to working at CLS, Mr. Etus worked as an Associate Financial Analyst at ConAgra Foods, Inc., managing the company's global cash network.

He graduated from the University of Nebraska at Omaha with a Bachelor of Science degree in Business Administration and obtained Master of Investment Management and Financial Analysis and Master of Business Administration degrees from Creighton University. He holds the FINRA Series 65 securities registration and the Chartered Financial Analyst (CFA) designation.

Did you know? Kostya grew up in Soviet Russia.

Quality at a Reasonable Price

Brian: What's the retail on one of those?

Ferrari Driver: More than you can afford pal. Ferrari.

Dom: [turning to Brian] Smoke him.

-The Fast and the Furious (2001)

What is quality?

Everyone loves high quality! How could they not? The word “quality” is synonymous with “good,” and in almost all fields of human endeavor, high quality is viewed more favorably than low quality. When you go looking for a new car, do you ask for a low-quality one?

But we believe that quality investments are particularly important during volatile and unpredictable markets. The reason is simple: Higher-quality companies tend to have more confident management, which may have a greater ability to weather market downturns. These companies typically provide increased stability and have the potential to outperform over time as they tend to have higher profitability, stronger balance sheets, and consistent earnings growth.

But don't take my word for it. There is a lot of empirical evidence and many academic studies emphasizing the benefits of quality investments. Here are a few of my favorites:

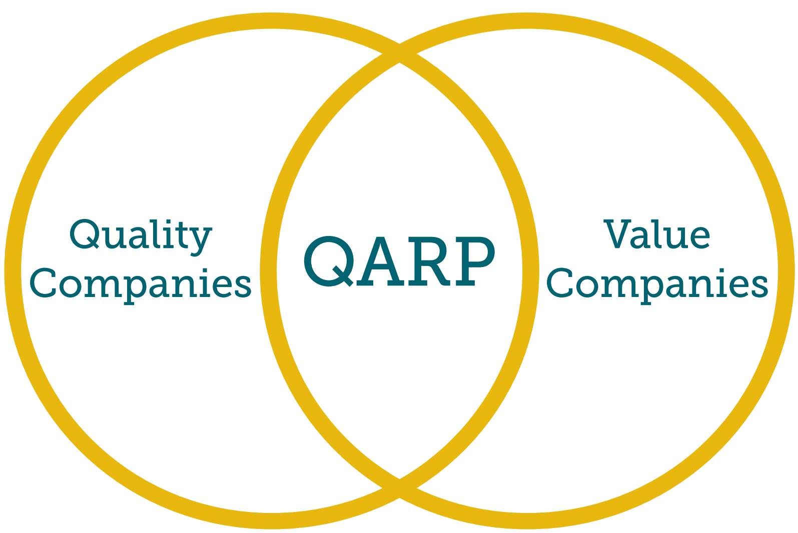
- Robert Novy-Marx, June 2012, “The Other Side of Value: The Gross Profitability Premium”
- Max Kozlov and Antti Petajisto, January 2013, “Global Return Premiums on Earnings Quality, Value, and Size”
- Cliff Asness, Andrea Frazzini, and Lasse Pederson, October 2013, “Quality Minus Junk”
- Jeremy Grantham, GMO, April 2010, “Playing With Fire”
- Chuck Joyce and Kimball Mayer, GMO, June 2012, “Profits for the Long Run: Affirming the Case for Quality”
- Aye M. Soe, S&P Indices Global Research and Design, July 2010, “Is High Quality Always Better?”
- Brian Smith, Atlanta Capital, March 2010, “The Third Dimension: An Investor's Guide to Understanding the Impact of ‘Quality’ on Portfolio Performance”

But isn't quality expensive?

In early 2018, investors were looking for a solution to a problem. Volatility had reared its ugly head and quality investments were desired, but they were too overvalued. Quality tends to trade at a premium because you get what you pay for with quality products, but valuations had reached excessive levels. So, in comes quality version 2.0 with the launch of Xtrackers Russell 1000 U.S. QARP ETF (QARP). (Note the pronunciation for QARP is “kwarp,” while “carp” is a low-quality fish.)

QARP invests in quality companies that trade at reasonable valuations. This is not an original idea. In fact, Warren Buffett, a hometown hero in CLS's home city of Omaha, Nebraska, likes to employ this type of investing strategy in his own Berkshire Hathaway portfolio, famously noting “It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price.” CLS has been utilizing QARP in several of our strategies.

In conclusion, research shows that high-quality investments behave just like any high-quality consumer product. They tend to provide consistent results for the long run. We believe that in today's volatile market environment, they may be a good addition to a diversified portfolio.



Content provided by Dustin Dorhout, Junior Investment Research Analyst

For many Americans, March is one of the most exciting months of the year in sports. Baseball season is on deck, NBA trade deadlines are approaching, the NFL free agency period is beginning, and Road to WrestleMania is underway! Basically, there's a little something for everyone. However, the true gravitational pull for sports fans comes from the men's NCAA basketball tournament, better known as March Madness, where 68 teams gather in a single-elimination tournament to decide who is crowned champion.

Whenever events bring together so many people, it can be interesting to take a step back and try to identify parallels to the world of investing or to draw life lessons in general as human tendencies are usually not specific to a singular event.

Though many parallels exist – the level of noise contributed by media, the expert forecasters' inability to predict any better than the next person, the behavioral biases that come out when emotions are high – it is the "familiarity heuristic" that I most want to address.

From personal experience in bracket selection, as well as observations of coworkers, family, and friends' brackets over the years, it seems many fans make their selections with strong biases toward their alma maters and/or teams that have historically done well in the tournament. This has a strong parallel to what the investment world calls "home country bias," which is the tendency for investors to favor their own countries over others or to "buy what you know."

This aversion to foreign markets makes sense from a psychological level, but when people isolate themselves to what's familiar, or to teams that have done well in the past, without thinking about how the dynamics of the market have changed, it creates an aversion or unwillingness to understand lesser-known teams or places, which can increase risk and decrease performance. It's important to branch out, and in the investing world, that means seeing emerging markets through a different lens.

The parallel between emerging markets and sports teams is the leveling out of the playing field. With sports, this relates to a team's ability to garner and improve talent. Technological development allows teams across the board to access top-notch training, better visibility to talent across the country, the ability to harness limitless data, and much more. These developments have tilted the balance of power away from just the top teams – making certain bracket decisions more difficult.

Emerging markets have been able to harness the benefits of globalization to level out the playing field in many ways. Access to resources and ideas has allowed them to technologically leapfrog, thereby growing at spectacular rates. The ability to diversify their economies away from just energy, industrials, and materials, and into sectors such as technology and health care, has decreased the sector-concentration risk and allowed nations to prosper at much faster rates than they were previously capable. In addition, the significant increase in wealth, which has seen foreign exchange rates grow nearly three-fold since the 1960s, has contributed to this change in emerging markets.

Furthermore, the research group McKinsey Global Institute recently found three trends that can, and have, helped most emerging economies achieve higher potential. It identified rapidly evolving technology in labor automation which significantly increases productivity, a rising level of consumption as countries reduce poverty, and growing trade between emerging markets which has eased their dependence on developed countries.

Many emerging markets have also increased their share of global wealth. Emerging Asia, which includes China and India, has grown from about 9% in the

Country or Region	Share of GDP (PPP, 1980)	Share of GDP (PPP, 2019F)	Change
Developing Asia	8.9%	34.1%	+25.2 pp
European Union	29.9%	16.0%	-13.9 pp
United States	21.6%	15.0%	-6.6 pp
Latin America & Caribbean	12.2%	7.4%	-4.8 pp
Middle East & North Africa	8.6%	6.5%	-2.1 pp
Sub-Saharan Africa	2.4%	3.0%	+0.6 pp

Source: International Monetary Fund, 2018

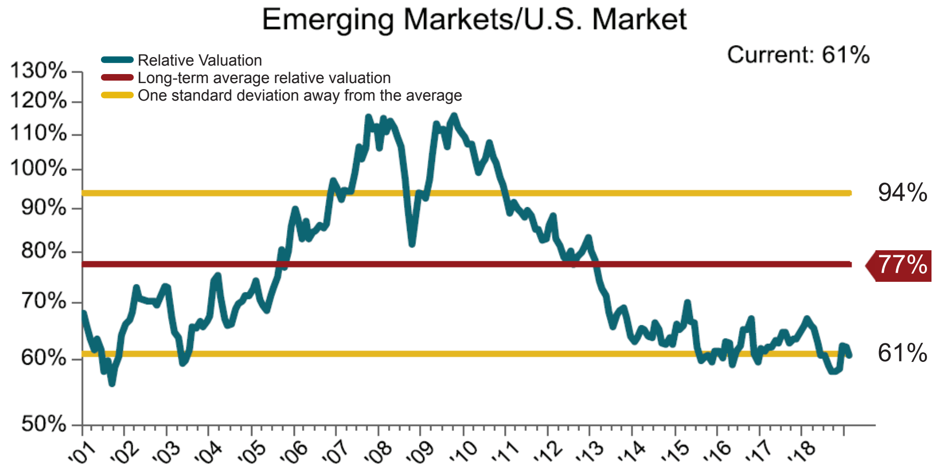
1980s to about 34% today (in purchasing power parity terms). The table above illustrates the changes in various regions over roughly 40 years.

The point is, these are not your father's emerging markets. With expected GDP growth favoring emerging markets, historically superior (though more volatile) returns, and only half of the world's market capitalization found in the U.S., is allocating solely to domestic markets most prudent?

For CLS, the answer is no. We are currently big fans of emerging markets (and developed international, but that is for another article). One of the most important ways that we conduct research at CLS is on the basis of valuation. We believe that this is because valuations have proven to be one of the best predictors of future returns due to their strong tendency to revert to the mean. In other words, if relative valuations deviate far from their historical averages, there is an increased probability of reversal toward that average. As the chart below shows, emerging markets are incredibly attractive from a valuation standpoint when compared to the U.S. market.

However, we understand that emerging markets are not created equal, and valuations alone are not enough to form strong convictions. Therefore, we turn every rock to find the best values within emerging markets. With the power of ETFs, we are able to gain targeted exposure to most of these regions. Moreover, we complement valuation analysis with economic, fundamental, quantitative, and technical analyses to make investment decisions.

Happy March Madness! (I hope your bracket is not already busted by the time you read this.)



The Morningstar Global Market Large-Mid Index is an index that measures the performance of the global market's equity markets targeting the top 90% of stocks by market capitalization. The Morningstar U.S. Market Index is an index that measures the performance of U.S. securities and targets 97% market capitalization coverage of the investable universe. It is a diversified broad market index. The Morningstar U.S. Large Cap Index is an index that measures the performance of U.S. large-cap stocks. These stocks represent the largest 70% capitalization of the investable universe. The Morningstar U.S. Small Cap Index is an index that measures the performance of U.S. small-cap stocks. These stocks fall between the 90th and 97th percentile in market capitalization of the investable universe. In aggregate, the Small Cap Index represents 7% of the investable universe. Morningstar Global ex U.S. Large-Mid Index is an index that measures the performance of Global Markets (ex-U.S.) equity markets targeting the top 90% of stocks by market capitalization. The Morningstar DM ex U.S. Large-Mid Index is an index that measures the performance of developed markets ex-U.S. equity markets targeting the top 90% of stocks by market capitalization. The Morningstar EM Large-Mid Index is an index that measures the performance of emerging markets targeting the top 90% of stocks by market capitalization. The Barclay's Capital U.S. Aggregate Bond® Index measures the performance of the total United States investment-grade bond market. The Morningstar Cash Index is an index that measures the performance of a Treasury Bill with six to eight weeks until maturity in the U.S. market. The Bloomberg Commodity Index is made up of exchange-traded futures on physical commodities and represents commodities that are weighted to account for economic significant and market liquidity. This index provides investors with a means of understanding the performance of commodity futures markets and serves as a benchmark for investment performance of commodities as an asset class. The volatility of the indexes may be materially different from the individual performance attained by a specific investor. In addition, portfolio holdings of investors may differ significantly from the securities that comprise the indexes. You cannot invest directly in an index.

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