CLS's WEEKLY 3

What You Need To Know About the Markets

FEBRUARY 13, 2018

1. When the U.S. market sneezes, do international markets catch a cold?
2. How will tax reform impact international markets?
3. Volatility is back, but one ETN wont' be.

CLS INVESTMENTS

Market Performance

Equities	LAST WEEK	QTD	YTD '18
Total U.S. Market[1]	-5.04%	-2.12%	-2.12%
Domestic Large-Cap Equity[2]	-5.10%	-1.84%	-1.84%
Domestic Small-Cap Equity[3]	-4.47%	-3.69%	-3.69%
International Equity[4]	-6.40%	-2.75%	-2.75%
Developed International Equity[5]	-6.19%	-2.80%	-2.80%
Emerging Market Equity[6]	-7.14%	-1.28%	-1.28%
Fixed Income	**LAST WEEK**	**QTD**	**YTD '18**
U.S. Investment Grade Bonds[7]	-0.10%	-1.92%	-1.92%
Cash Equivalent[8]	+0.02%	+0.13%	+0.13%
Commodities	**LAST WEEK**	**QTD**	**YTD '18**
Commodity[9]	-3.87%	-2.70%	-2.70%

[1]Russell 3000 [2]S&P 500 Index [3]Russell 2000 Index [4]MSCI ACWI ex-U.S. Index [5]MSCI EAFE Index [6]MSCI Emerging Markets Index [7]Bloomberg Barclays Capital U.S. Aggregate Bond Index [8]Bloomberg Barclays Capital 1-3 Month U.S. Treasury Bill Index [9]Bloomberg Commodity Index

As of 2/9/2018

Week in Review

Volatility is back baby! With the Chicago Board Options Exchange (CBOE) Volatility Index (VIX) finishing the week at around 30. It is important to remember that volatility in the stock market is a perfectly natural, normal thing. Equity markets fell over the week, enough to drag year-to-date performance negative. U.S. small-caps lost the least with about -4.5% while emerging markets lost the most, just over -7%.

The 10-year Treasury yield stayed firm despite the sell-off, generally above the 2.8% level. This resulted in flat performance for aggregate bonds on the week. Commodities outperformed equities, but still fell due to a plunge in oil prices (below $60 a barrel).

Within major economic data, the January ISM Non-Manufacturing Index soared to 59.9 (measures economic conditions - over 50 means growing), the highest reading since 2005. Reminding us that we are nowhere near a recession – the economy is healthy and corporate earnings are strong. The market is just letting off a bit of steam.

Why International? Down Market Performance

What, do you have a cough due to a cold? — Forrest, Forrest Gump (1994)

At CLS, we have a research paper that examines why investors should invest on a global scale. It is called "Why International: The Case for International Investing," and we recently refreshed the charts with updated data. The paper is not word-heavy and includes 27 colorful charts. So, if you believe a picture is worth a thousand words, this one's for you.

During the refresh, we added a new section titled "Down Market Performance," which challenges some common misconceptions about down markets. For example, many investors believe when the U.S. market has negative returns, international markets perform even worse, i.e., when the U.S. market sneezes, international markets catch a cold. The international markets' downside underperformance myth is busted in Chart 26 of the new section (displayed above), which shows the following findings:

- U.S. and international markets are both positive about 60% of the time.
- When the U.S. market is negative, international markets are positive about 30% of the time.
- Additionally, when the U.S. market is negative, international markets outperform the U.S. market more than half the time (about 57%).

Thus, international markets can serve as diversifiers for U.S. down market periods.

Down Market Performance Scenarios (1970-2017)

Scenario	% of Time
U.S. Negative	38.2%
Intl Negative	40.6%
Intl Positive if U.S. is Negative	30.9%
Intl Outperforms when U.S. is Negative	56.8%

Source: Morningstar Direct monthly return data from 01/31/1970 to 12/31/2017.

U.S. market represented by MSCI USA Index and international markets represented by MSCI World ex USA Index.

Kostya Etus, CFA
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 SRI/ESG. In addition, he manages 529 plans.

Mr. Etus has eight years of investment experience, including six at CLS. He 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 Series 65 securities registration and the Chartered Financial Analyst® (CFA) designation.

Did you know? Kostya grew up in Soviet Russia.

By the way, do you think that you could give me that 20 thousand in cash? My concern is, and I have to check with my accountant, that this might bump me into a higher tax bracket. — The Dude, The Big Lebowski (1998)

One of the provisions of the new tax law is a reduction of the corporate tax rate. The current rate of 35% (a combined national and local tax rate of about 39%) is being reduced to 21% (combined, about 26%). The combined rate of 39% was the highest in the world, and the reduction gets the U.S. closer to the international average of about 24% (see chart on the right). The reduction should support U.S. corporations maintaining their operations within home borders.

An additional provision is the repatriation of foreign earnings at a lower tax rate. U.S. companies have been hoarding cash abroad to avoid high U.S. tax bills (see chart on the next page). But, this change raises some questions about the implications of the provision for international markets.

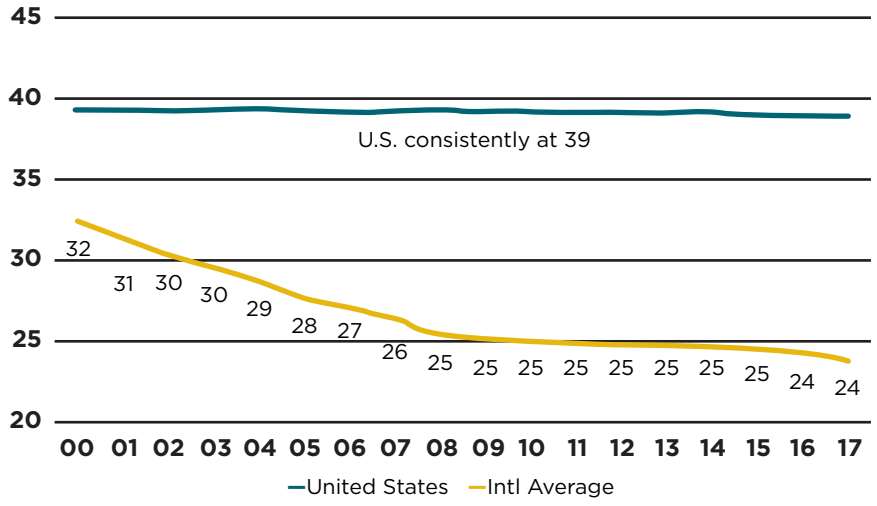
How Does Tax Reform Address Corporate Overseas Cash?

Companies operating abroad always have to pay local taxes, but the new tax rules state that firms can no longer avoid paying U.S. taxes on past international profits by keeping the money outside the U.S. They must pay tax whether they bring this cash back to the U.S., or not.

The new rules require U.S. companies to pay a tax of between 8% (reinvested earnings) and 15.5% (cash and equivalents) on overseas earnings made since 1987, if they remain offshore. Even at 15.5%, the rate is one of the most attractive in the world (only beat by Latvia, Ireland, and Hungary). After making this one-off payment, they'll be able to bring the money back home without paying additional tax. Under the old law, they would have owed the top rate of 35% when bringing foreign profits back to the U.S.

This one-off tax payment will sting, but the cash brought back to the U.S. can be spent on growing the business domestically (capital expenditures), paying off debt, or some form of return to shareholders (share buybacks or dividends) — all good things. Moving forward, the tax rule will benefit many companies by lowering tax rates, and it will have a broader benefit to the U.S. by encouraging companies to leave less cash abroad.

U.S. vs. Intl Corporate Tax Rates (%)



Source: OECD.org data as of February 8, 2018. International average is the simple average rate of 34 countries.

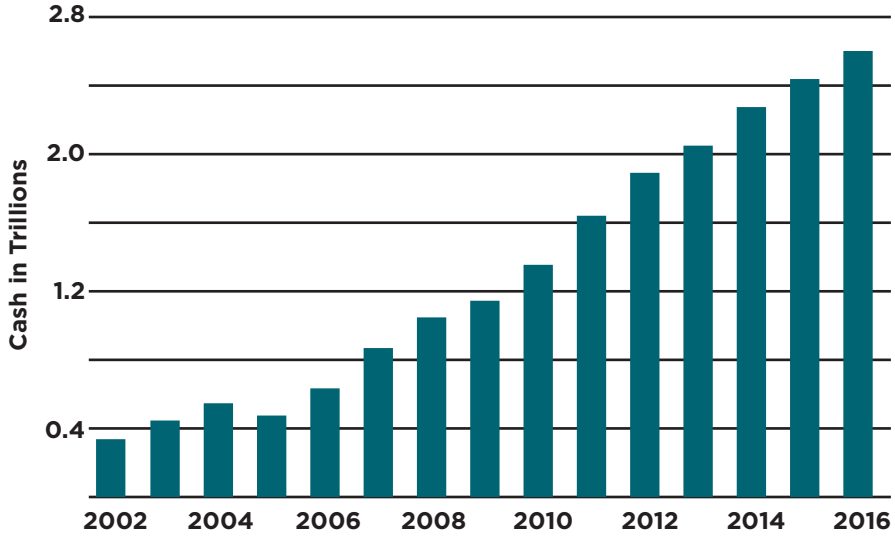
Will Tax Reform Negatively Impact International Markets?

The cash that had been left abroad may have been used to grow foreign operations. That could have benefitted local economies, but it also could have created competition for local companies. With the repatriation of cash, the funds will be spent in the U.S., and those foreign economies can focus more on growing their local businesses instead of supporting U.S. businesses.

Additionally, and more importantly, the majority of the foreign cash stockpiles were sitting in banks, many of which are U.S. banks. Banks don't just hold all their cash in a vault — they lend it out and reinvest it in countries all over the world, including the U.S. Thus, the cash that is being "brought back" was technically already in circulation within U.S. borders.

So, while the U.S. may benefit from tax reform in terms of corporate and economic growth, international markets should be little affected.

Cash Held Overseas by U.S. Companies



Source: SEC filings, Audit Analytics, Capital Economics

Volatility Returns and Claims a Victim

This section was written by CLS Portfolio Manager, Grant Engelbart, CFA, CAIA

As the saying goes: "If it seems too good to be true, it probably is." This can't be truer in financial markets, although sometimes it takes a while for these realizations to come to fruition. Last week marked one such turning point, with the implosion (not an exaggeration) of short volatility products. Over the past five years (ending in 2017), two prominent short volatility exchange traded products have seen returns of more than 52% annualized – or a whopping 700%+. That's substantially higher than the illustrious Facebook, Apple, Amazon, or Alphabet (Google parent).

Then last week happened. After a record-setting 2017, volatility returned to equity markets, and these inverse products dropped more than 80% in just one day! How can this happen? The most controversial of the three (one additional fund launched recently), an exchange traded note (ETN), is the VelocityShares Daily Inverse VIX Short-Term ETN (XIV). This product shorts, or seeks to deliver the inverse return of, two front-month Chicago Board Options Exchange (CBOE) Volatility Index (VIX) futures contracts on a daily basis. Let's pick that apart.

First, the VIX is not investable, and therefore cannot be owned or shorted. It is a mathematical calculation of the implied volatility in option prices on the S&P 500 Index. It doesn't measure past volatility, but is supposed to anticipate future volatility, which is why it's often referred to as the "Fear Index." However, some futures and options contracts trade based on the VIX, and traders use these as tools to hedge portfolios or speculate on volatility.

Contract	Return 2/5/2018	Percent of Index
VIX February 2018 Future	112.64%	34%
VIX March 2018 Future	86.81%	66%

So, back to XIV. At the time of last week's debacle, the index that XIV tracks was 34% short the February VIX futures contract and 66% short the March futures contract. Above is the return for those contracts last Monday.

With me so far? If a fund is short something that goes up more than 100%, you are out of luck, and so are your assets. In this case that would have happened to 34% of XIV, while the other 66% suffered an 87% drawdown. This translates into a drop of more than 90% for the fund, which eventually happened the next day when trading resumed after numerous halts.

This event happened to XIV, which is an exchange traded note. Two ETFs with similar strategies suffered similar declines. It's important to note that they behaved as they were designed to given the circumstances. However, a specific clause in the prospectus of XIV (an ETN) gave the note's sponsor, Credit Suisse, the ability to redeem the note early – which it elected to do; XIV will cease to trade later this month. However, even if XIV continued to exist – like the two ETFs will – it would take more than a 1,300% return to recoup the losses. At CLS, we avoid inverse and leveraged products, but we also try to minimize exposure to ETNs due to credit risk with the issuing bank and certain prospectus surprises, like this one, that can harm investors.

We don't own any of these inverse volatility products. But even if we did, what would that look like? The Risk Budget of XIV is an incredible 739 at the time of this writing – 739! A 100 Risk Budget client, with the rest of their portfolio in cash, could only own a maximum of 14% in XIV. If they were invested in equities with the rest of their portfolio, they could only own 0.1% in XIV! Minimizing how much we can own in risky securities is an important, but often overlooked, aspect of Risk Budgeting.

Volatility is back, but it doesn't have to be a detriment. Volatility provides opportunities for us as active managers. Ensuring your Risk Budget is where it should be is the best way to navigate choppy markets.

The Russell 3000 Index is an unmanaged index considered representative of the U.S. stock market. The index is composed of the 3,000 largest U.S. stocks. The S&P 500 Index is an unmanaged index of 500-large capitalization companies. This index is widely used by professional investors as a performance benchmark for large-cap stocks. The Russell 2000 Index is an index comprised of the 2,000 smallest companies on the Russell 3000 Index and offers investors a benchmark for small-cap stocks. The MSCI ACWI ex U.S. Index (MSCI All-Countries World Index, excluding U.S.) is an index considered representative of stock markets of developed and emerging markets, excluding those of the U.S. The MSCI EAFE Index is an index which tracks performance of international equity securities in developed countries in Europe, Australia, Asia, and the Far East, excluding the U.S. and Canada. The MSCI Emerging Markets Index is an index which tracks performance of large and mid-cap firms across countries classified as emerging market countries. The Bloomberg Barclays Capital U.S. Aggregate Bond Index measures performance of the U.S. investment-grade bond market. The Bloomberg Barclays Capital 1-3 Month U.S. Treasury Bill Index includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have $250 million or more of outstanding face value. 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. An index is an unmanaged group of stocks considered to be representative of different segments of the stock market in general. You cannot invest directly in an index.

1222-CLS-2/13/2018