

Eye on the Market Outlook 2018

J.P. MORGAN PRIVATE BANK

*Since March 2009, global equities up 240%;
global bonds up 37%; OECD inflation 2%*



The Decline of Western Centralization. There's a global recovery under way that is broadening across regions. However, unlike prior recoveries, this one is closely tied to trillions in central bank intervention and negative real policy rates. Wage inflation pressures are gradually intensifying and will eventually force Western central banks to take the punch bowl away. 2018 looks like the last year in the cycle with rising growth, rising corporate profits and relatively accommodative central banks, before things get more complicated in 2019-2020. While corporate profits are growing, high valuations will constrain the upside in developed equity markets to high single digits this year. See inside cover for more details.

J.P.Morgan

The punch bowl on the cover is inspired by comments made by Fed Chair William McChesney Martin in his 1955 address to the New York chapter of the Investment Bankers Association of America:

“If we fail to apply the brakes sufficiently and in time, of course, we shall go over the cliff. If businessmen, bankers, your contemporaries in the business and financial world, stay on the sidelines, concerned only with making profits, letting the Government bear all of the responsibility and the burden of guidance of the economy, we shall surely fail.... In the field of monetary and credit policy, precautionary action to prevent inflationary excesses is bound to have some onerous effects—if it did not it would be ineffective and futile. Those who have the task of making such policy don’t expect you to applaud. The Federal Reserve, as one writer put it, after the recent increase in the discount rate, is in the position of **the chaperone who has ordered the punch bowl removed just when the party was really warming up.**”

The fish on the line commemorates the giant trevally that I caught in the summer of 2017 on Fanning Atoll, Kiribati, Pacific Ocean, 3°51’28.4”N 159°21’38.6”W.

Equity and fixed income returns sourced from MSCI and Barclays as of November 27, 2017. Inflation data from the OECD.

Cover art by Gary Bullock.

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MARY CALLAHAN ERDOES
Chief Executive Officer
J.P. Morgan Asset & Wealth Management

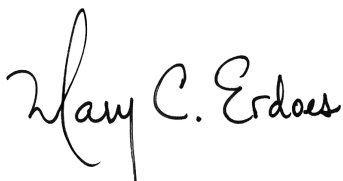
Anticipating future market performance is a complicated and complex task, and 2018 will be no exception. Never before in the history of central banking has there been such a coordinated liquidity infusion into global markets, and markets have never dealt with such a massive withdrawal. Navigating the removal of the “punch bowl” requires adept skills to avoid possible unintended consequences.

For the past 15 years, my investment partner in J.P. Morgan Asset & Wealth Management, Michael Cembalest, has thoughtfully and creatively laid out a roadmap of how to position portfolios for the coming year. In the 2018 Outlook, Michael and his team explore how the “Decline of Western Centralization” will affect markets and portfolios.

As always, we look forward to helping you evaluate your portfolio strategies and wealth plans to ensure you are best positioned for near- and long-term market results.

On behalf of all my colleagues, thank you for your continued trust and confidence in J.P. Morgan.

Most sincerely,

A handwritten signature in black ink that reads "Mary C. Erdoes". The signature is written in a cursive, flowing style.

2018 Outlook: The Decline of Western Centralization

Executive Summary

Well, it took 9 years and \$11 trillion in central bank stimulus, but growth, equity markets and profits are finally picking up in a synchronized way across multiple regions. Global trade has actually recovered from its 2015/2016 slump, which is ironic given the fear that Trump policies would result in rising tariffs and trade wars. A consistent theme from the *Eye on the Market* in 2016 and 2017 was that investors should remain focused on profits, inflation, P/E multiples, employment, CEO confidence and capital spending, and focus less on domestic or international political risks. Many of the worst geopolitical fears investors held at the beginning of 2017 didn't materialize¹, and for the most part, I think the same will be true for 2018.

Global economic expansion picks up steam

% of countries with PMI leading indicator in expansion mode



Source: Based on Markit's 35-country universe using data as of Nov 2017. PMI of 50 denotes expansion. November 2017.

Global earnings growth picking up

MSCI All world equity index, earnings per share, y/y change



Source: Datastream, IBES, JP Morgan Asset Management. Includes developed and emerging markets. November 2017.

Global capital spending ex-China

y/y % change



Source: JP Morgan Economic Research. Q3-Q4 2017 are estimates.

Signs of a global recovery

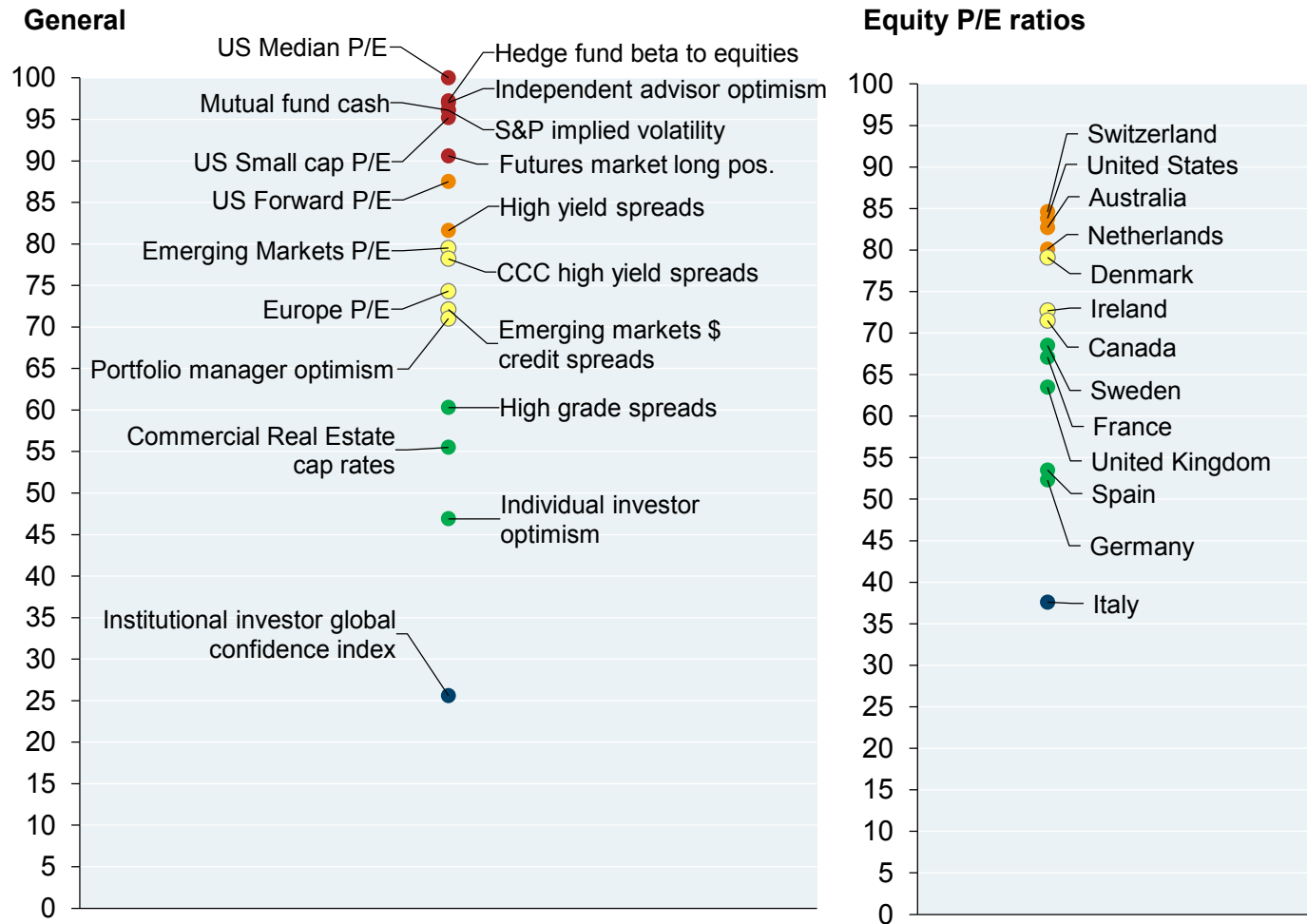
- China's business survey and industrial profits growth at a 5-year high
- US services surveys close to a 15 year high, highest level in the National Homebuilder Index since 1999, highest US free cash flow margins since 1952
- Business surveys are booming in France, Sweden, the Netherlands and Germany (highest German IFO business survey since records began in 1991)
- Japanese business confidence is close to the highest levels since the late 1980's, Japanese export growth close to its highest level in 4 years
- Brazil, Mexico, India, Russia all in expansion mode
- Developed world unemployment at a 40-year low; for the first time since 2008, there are no negative Net Employment Outlooks among 43 countries surveyed in the Manpower survey
- Best positive momentum in the Baltic Dry Freight Index since 2010

¹ **Conferences I didn't attend in 2017** since I didn't think the topics would impact financial markets: Implications of Nationalism in German, French, Dutch and Austrian elections; A Complete Guide to the Chinese Party Congress; Brexit Fallout Update; Spillover risks from military activity in Qatar; Assessing the Catalonian Independence Movement; The Implosion of Venezuela; A Guide to Italian Election Risk; and Understanding Brazilian Parliamentary Scandals. I had more time to fish.

So, what's not to like? While the global recovery is welcome and global corporate profits rose by 17% in 2017, financial assets are expensive after years of negative real interest rates. Rather than cherry-picking a single statistic, we track several valuation, volatility² and optimism measures and compare them to their history. As shown below, most are at the high end of their historical ranges, anywhere from the 70th to the 99th percentile of expensiveness/optimism³. P/E multiples across developed equity markets are high as well, with some exceptions. While we expect developed equity markets to rise in 2018, the degree to which good news is already priced in may constrain the upside to high single digits. The S&P 500 is close to the longest period since 1930 without a 5% correction (almost 400 trading days), another sign of considerable optimism.

Market and Investor Barometers

Percentile of expensiveness vs history



Sources: DB, Datastream, AAI, Investors Intelligence, NAAIM, JPM, CBOE, Barclays, Investment Company Institute, State Street. November 2017 or most recent data available.

Sources: IBES, Datastream. November 2017

² Since 1930, there have only been 2 years in which the **maximum S&P drawdown** was just 3%: 1995 and 2017.

³ In a report published in September 2017, a Deutsche Bank strategist computed a combined stock-bond valuation percentile for developed economies going back to the year 1800. The result: stocks and bonds taken in aggregate are trading at the 95th percentile of their historical expensiveness.

The other big issue for 2018 is **The Decline of Western Centralization**: the process by which central banks reduce their balance sheets after accumulating more than \$11 trillion in government, agency and corporate bonds since 2009. The big 4 central banks now own 20% to 40% of their respective country's government bonds. While the end of the grand monetary experiment is now at hand, we expect that **2018 will still be a year of net central bank accumulation, and when the runoff begins, it is expected to occur over a prolonged period of time**⁴. The charts below show [a] rolling 12-month central bank flows and how 2018 is still an accumulation year; [b] a breakdown of flows by central bank, and how only the Fed is projected to be in runoff mode in 2019; and [c] how prolonged the runoff is expected to be, with central bank balance sheets projected to still be larger in 2022 than in 2017.

[a] G-4 central bank asset flows

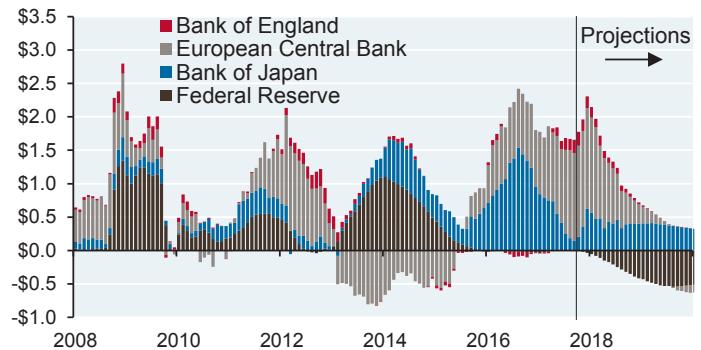
US\$ trillions, 12 month change



Source: National central banks, JP Morgan Economic Research. Oct 2017.

[b] G-4 central bank asset flows by central bank

US\$ trillions, 12-month change



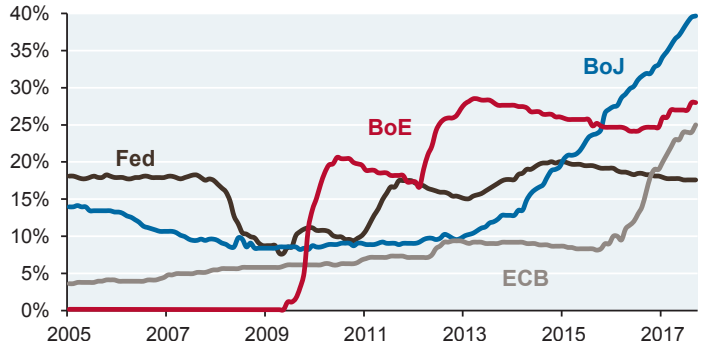
Source: National central banks, JP Morgan Economic Research. Oct 2017.

[c] G-4 central bank balance sheets expected to unwind slowly, Fed/ECB/BoE/BoJ balance sheets, \$US trillions



Source: National central banks, JP Morgan Economic Research. Oct 2017.

Central bank holdings of their own government's securities



Source: Deutsche Bank. September 2017.

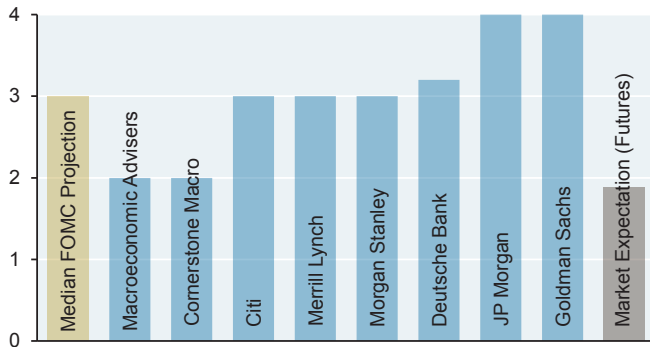
⁴ If you are interested in the details by central bank:

- In 2018 the Fed will allow securities to begin rolling off. The annualized pace of roll-off started at \$120 billion last fall, and is expected to rise to \$400 billion by 2019
- The ECB is expected to reduce its asset purchases from EUR 60 billion per month to EUR 30 billion starting in January 2018; further reduce them to EUR 15 billion per month in the fall of 2018; end the asset purchase program by year-end; and begin the roll-off process in 2019
- Given the Bank of Japan's yield-targeting strategy, its government bond purchases will vary based on its 0% target for the 10yr JGB
- The Bank of England will likely stay the course in 2018 and maintain the current size of its balance sheet (~GBP 550 billion) until 2020

The other component of monetary policy to consider is rates. The median Fed projection indicates three rate hikes by the end of 2018. While most economists believe them, the “market” does not and expects less. I understand skepticism about Fed projections, since the Fed has been over-estimating inflation and policy rates for the better part of a decade. However, this time I expect the Fed to act more in line with its projections. The market does not expect much policy rate tightening in 2018 from the ECB or Japan, and we agree. 2019 will be a more interesting year for the ECB, particularly if Draghi is replaced by Jens Weidmann or another member of the German Bundesbank.

Fed hike expectations

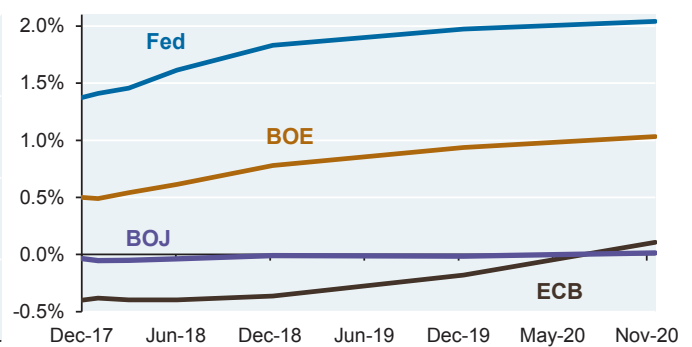
Number of 25bp rate hikes expected through year-end 2018



Sources: Bloomberg, WSJ, Fed, listed institutions. December 2017.

Market-implied central bank policy rates

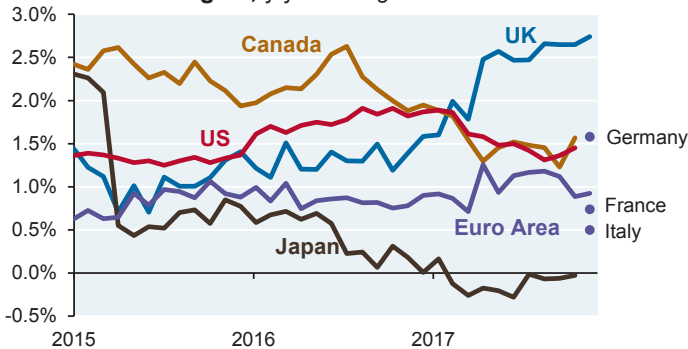
effective rate derived from overnight indexed swaps market, %



Source: Bloomberg. December 13, 2017.

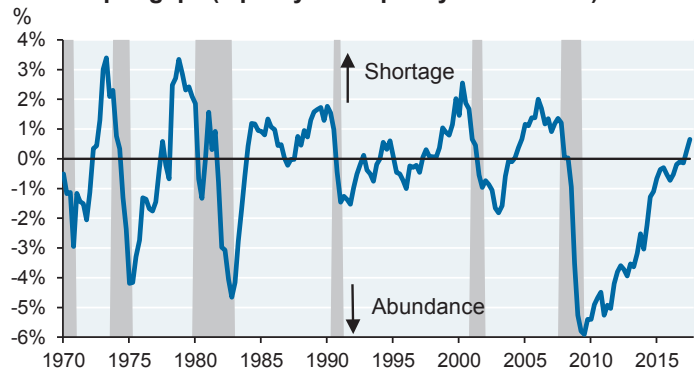
The risk to our projections of slow monetary withdrawal: a faster-than-expected return of inflation. While developed world consumer price inflation is generally still below central bank targets, excess capacity (measured by “output gaps”) in the US and Europe has been shrinking and is now closer to normal. In other words, future economic growth could result in greater inflation than it has in recent years⁵. We discussed the [deflationary impact of the tech sector](#) recently and how new revised estimates from the Fed show a much greater rate of deflation in tech goods and services, but I don’t think we should count on this as a permanent bulwark against rising prices.

Core consumer price inflation still generally below central bank targets, y/y % change



Source: OECD, Haver. November 2017.

US “output gap” (a proxy for capacity constraints)

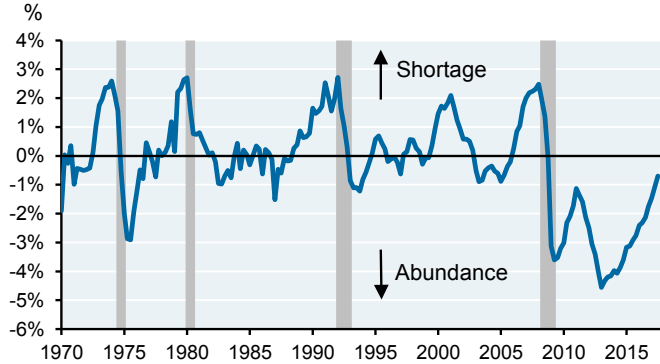


Source: JP Morgan Economic Research. 3Q 2017. Grey bars indicate US recession.

⁵ **Why output gaps matter.** An October 2017 piece from JP Morgan Economic Research shows the connection between the developed world output gap and developed world inflation one year later. “The next move in global inflation is up”, Joseph Lupton & Bruce Kasman, JP Morgan, October 6, 2017.

Wage inflation is a larger concern than consumer price inflation now that developed economy unemployment rates are 5.3%, the lowest since 1983. In the US, voluntary quits and firings are among the many signals showing substantial tightening in labor markets (see box). All things considered, the **US looks to be at or above “full employment”**. In Europe, wage inflation pressures are building as well: compensation per employee is rising in France despite an unemployment rate of almost 10%, and one of Germany’s most influential unions asked for a 6% pay raise (see pages 17-18 for details).

Eurozone "output gap" (a proxy for capacity constraints)



Source: JP Morgan Economic Research. 3Q 2017. Grey bars indicate Eurozone recession.

Developed economies unemployment rate
%, seasonally adjusted



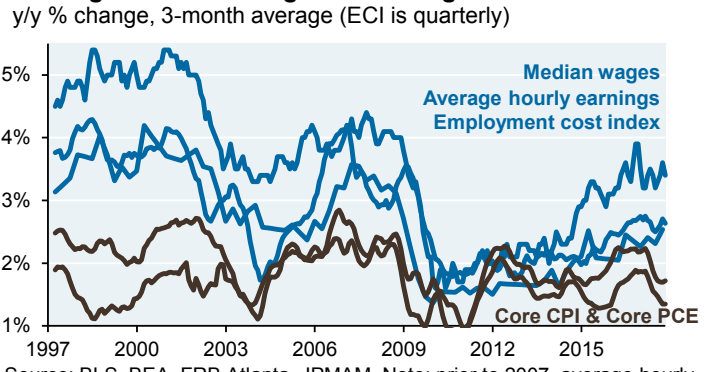
Source: OECD, Bloomberg. Q3 2017.

Signs of a healthy US labor market



Source: Bureau of Labor Statistics, Haver Analytics. October 2017.

US wage inflation rising faster than goods inflation



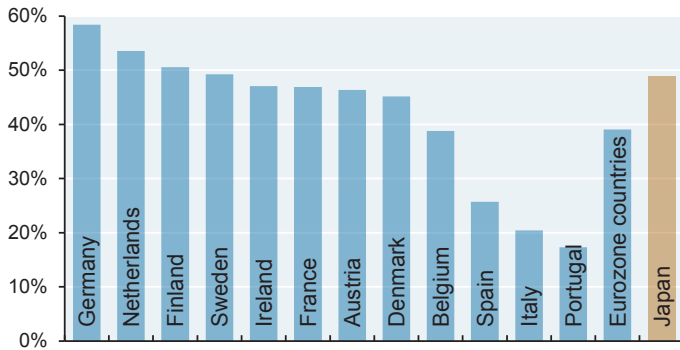
Source: BLS, BEA, FRB Atlanta, JPMAM. Note: prior to 2007, average hourly earnings are only for production and nonsupervisory workers. Oct 2017.

Signs that the US is at or above full employment

- The percentage of part-time workers that want full-time jobs is back down to 2005 lows
- The percentage of people not in the labor force that want a job is also back down to 2005 lows
- The NFIB small business survey shows the highest percentage of respondents since 2000 saying that they have positions that they are unable to fill
- The NFIB hiring intention survey is at its highest level since the survey began in 1974

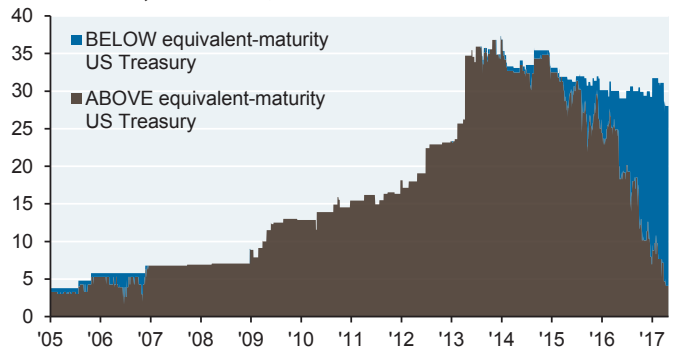
Central banks don't talk about it much, but my sense is that they are also worried about **distortions** that their interventions created. Examples include *negative* government bond yields in Europe and Japan (around \$4.9 trillion of bonds in total), and the fact that well more than half of European and Italian high yield bonds trade tighter than US Treasury yields. While US Treasury yields are not negative, their decline has created distortions as well, some of which we reviewed in our [Thanksgiving piece](#) on US foundations and the portfolio risk needed to meet 5% minimum distributions.

Government bonds trading below 0% yield
% of total government bonds by market value



Source: J.P. Morgan Securities LLC, JPMAM. December 15, 2017.

Growing amount of Italian BB's yielding less than US Treasuries, Face value, EUR billions

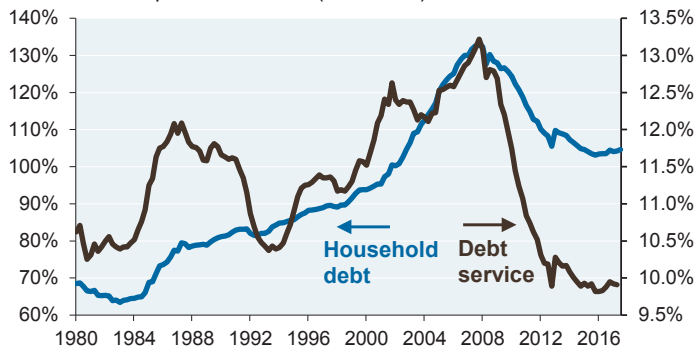


Source: Bank of America Merrill Lynch. December 4, 2017.

What if something goes wrong with central bank stimulus withdrawal?

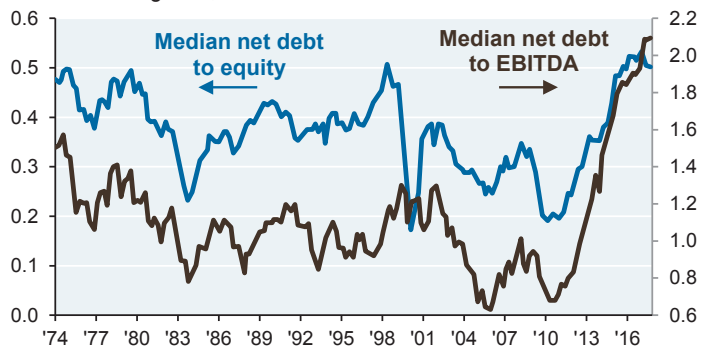
Since the stimulus is unprecedented, we can't know all potential land mines associated with withdrawal. How is the US financial system positioned for unexpected problems, should they occur? Household debt and debt service have both declined since 2008. However, corporate debt is at an all-time high relative to cash flow and equity when looking at the *median* company in the S&P 1500. As shown at the top of the next page, median interest expense is rising as well, even at a time of low interest rates and credit spreads. Some analyses show lower levels of leverage, but are distorted by cash holdings of tech and large cap pharma companies. Easy conditions in credit markets are further confirmed by tight credit spreads and plenty of covenant-lite issuance.

Household debt
Percent of disposable income (both axes)



Source: Federal Reserve. 3Q 2017.

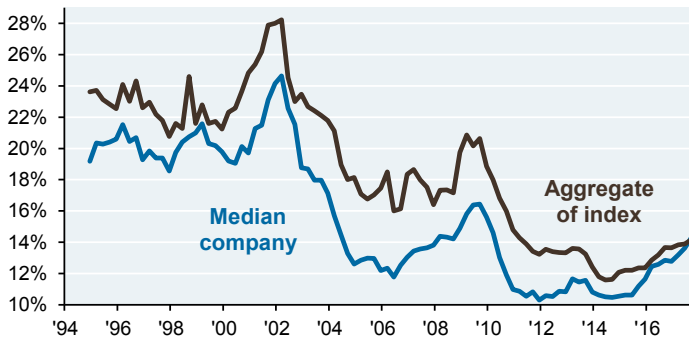
Corporate debt
Universe = largest 1,500 stocks



Source: Morgan Stanley. November 2017.

Corporate interest expense low, but rising

Interest expense to EBIT for the S&P 1500, %

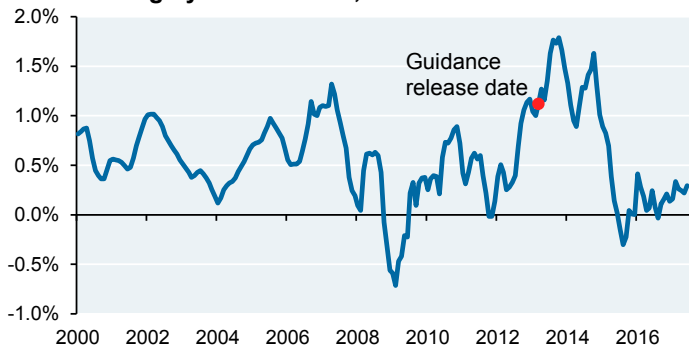


Source: PB Economics. Q3 2017.

On US corporate debt, there are some mitigating factors:

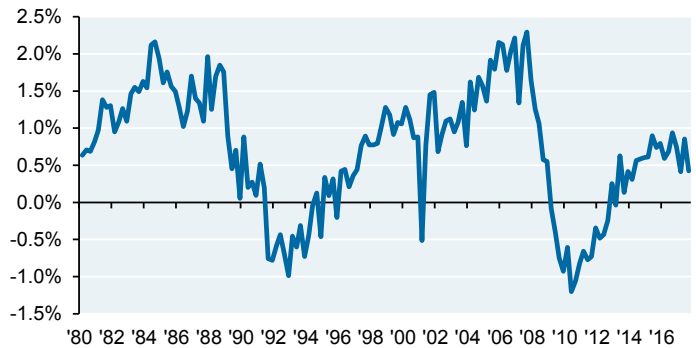
- The increase in median corporate debt shown above is mostly related to investment grade issuers (93% of the S&P 1500 universe by market cap is high grade rather than high yield)
- US leveraged loan and high yield issuance was soaring in 2013, prompting the Fed to issue guidance to banks discouraging participation in deals with high leverage. This strategy had its desired impact: a substantial decline in net issuance of risky debt. In 2017, while gross loan issuance reached its highest level in 10 years, the **bulk was used for refinancing**. The same is true in the high yield market (around ~2/3 of issuance has been used for refinancing)
- While commercial real estate borrowing has recovered since 2009, it is below levels seen during the real estate bubbles of the 1980's and 2007. In addition, loan to value ratios in the commercial mortgage backed securities market are 60%-65%, down from 80%-90% in 2006 and 2007

Fed/OCC/FDIC guidelines resulted in slower leveraged loan and high yield issuance, net issuance % of GDP



Source: Bridgewater Associates. August 2017.

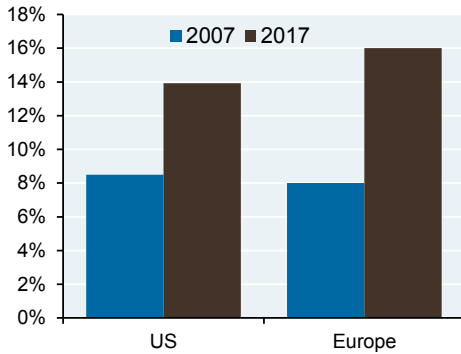
Commercial real estate borrowing well below prior peaks



Source: Federal Reserve Board, BEA. Q3 2017.

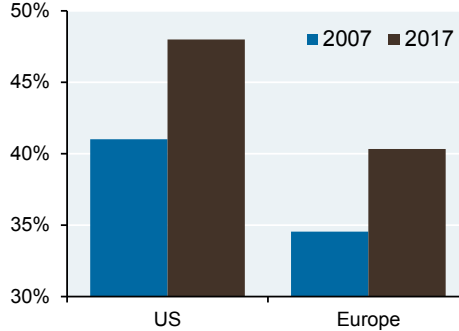
As for the US banking system, there have been substantial improvements in capital ratios and liquidity since 2007. The same holds true for the insurance sector, for both life and P&C companies. In other words, in case of something worse than the run-of-the-mill recession, the US financial sector and parts of the European financial sector are better equipped to handle it.

Bank risk-weighted capital ratio



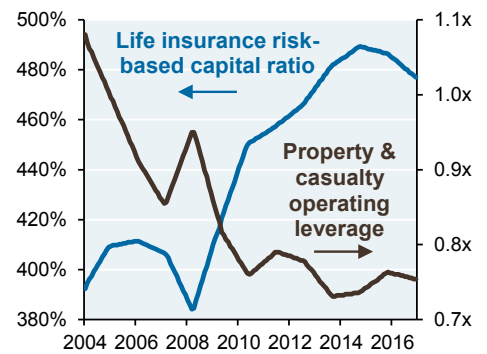
Source: Federal Reserve Bank of New York, Bloomberg. Q2 2017.

Bank liquid assets as % of short term liabilities



Source: FDIC, Goldman Sachs, JP Morgan. Q2 2017.

Insurance company capitalization

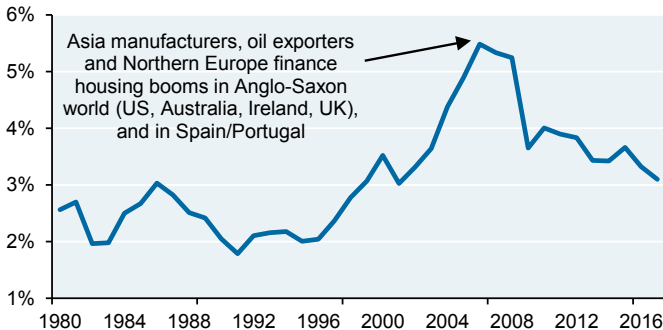


Source: SNL Financial, company reports, Barclays Research. September 2017.

Another safety valve: **global imbalances**, measured by the degree to which current account surplus countries pour money into deficit countries, have fallen back to normal levels. In retrospect, the first chart below was a good indicator of how the housing bubble had increased systemic risk. There's also a technical factor that supports global equity markets: **over the last 2 years, the global net supply of equities has been flat.** This reflects a combination of factors: fewer new listings, more stock buybacks and more M&A, all of which are roughly offsetting primary and secondary offerings and other dilutive corporate actions. This trend is particularly acute in the US, where the number of public companies continues to shrink (see page 35). Net result: household and corporate savings are being invested in a pool of equities that is no longer expanding.

A decline in global imbalances

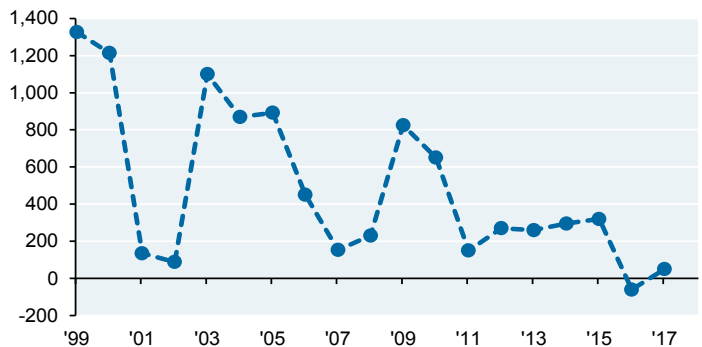
Absolute value of all country current account surpluses and deficits, % of world GDP



Source: IMF, n=193 countries. 2017.

Global net equity supply

Annual expansion of MSCI All Country World Index, \$ bn



Source: MSCI, JP Morgan Equity Strategy. 2017.

The Decline of Western Centralization: summarizing the outlook for 2018

There's an impressive global recovery underway that is broadening across regions. However, unlike prior recoveries, this one is closely tied to trillions in monetary stimulus. All things considered, it seems like 2018 will be the last year in the cycle with rising growth, rising profits and accommodative central banks. We expect wage inflation to eventually force the Fed and ECB to eliminate negative real policy rates, creating a modest headwind for growth and valuations by 2019. Given high valuations, we believe that equity market returns in 2018 will be roughly equal to profits growth. So, a year of gradually rising markets with returns in high single digits for developed markets before things get more complicated in 2019/2020. If there's a wildcard this year, it might be related to politics in the US rather than in Europe (see chart at the top of page 14, which brought back a lot of memories).

This year's *Eye on the Market* Outlook contains regional analyses on the US, Europe, Emerging Markets and Japan, and sections on commodities, Brazil, hedge funds, US municipals and the issue of the declining number of publicly traded companies in the US.

Regional analyses:

- The US: an improving outlook, with an eye on Trump tailwinds and headwinds [p. 10](#)
- Europe: another year of growth in 2018 [p. 17](#)
- Emerging Markets: the recovery continues [p. 22](#)
- Japan: some cyclical upside but no change to long term outlook [p. 27](#)

Special Topics:

- Industrial commodity prices: more room to rise as global economy recovers [p. 29](#)
- Brazil: another example of improving economics trumping deteriorating politics [p. 30](#)
- Our latest analysis of the US municipal market: debt burdens of US cities and counties [p. 31](#)
- Hedge Fund performance: modestly better in 2017, but valuation headwinds remain [p. 32](#)
- The concentration of US equity market returns in 2017 [p. 34](#)
- What should be done about the shrinking number of US public companies? [p. 35](#)

Michael Cembalest
JP Morgan Asset & Wealth Management

United States: an improving outlook, with an eye on Trump tailwinds and headwinds

Business surveys point to continued US expansion in 2018 with growth at ~3%. Retail sales and industrial production are at their strongest level in years, manufacturing surveys are in expansion territory, and the Homebuilders Confidence Index is at its highest level since 1999. On tightness in housing, what a difference a few years makes: existing and new home inventories as a percentage of households are now at the lowest levels since the data begins in 1985. Capital spending projections have picked up sharply (and are due more to the improving business outlook than the tax bill, according to recent surveys). Another 18 months of growth, and this would be the longest expansion in US history.

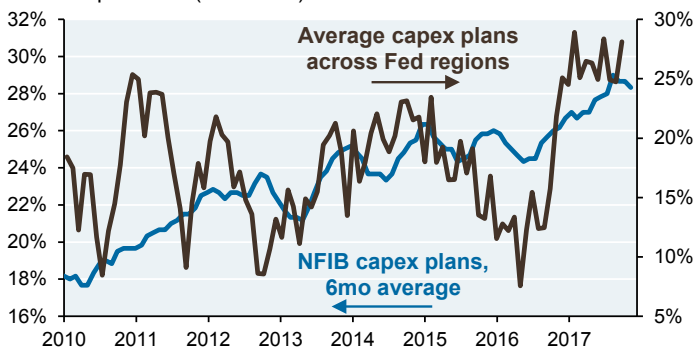
What we're watching: (a) how quickly will tight job markets result in higher wages; (b) will rising "prices paid" surveys result in rising core inflation; and (c) how will equity markets hold up once Fed tightening begins. There's a lot of debate regarding how dependent equity valuations are on low interest rates.

Our sense is that P/E multiples will contract alongside rising profits as the Fed tightens, with the net result being a high single digit gain in the S&P 500.

A lingering concern for 2019 and beyond: even before the passage of a tax bill, the US budget deficit has been rising, which is odd for a time in the cycle when it would typically be shrinking given improving growth and more economic activity.

Rising capital spending plans

% of respondents (both axes)



Source: NFIB, JP Morgan Economic Research. November 2017.

US core capital goods

Rolling 3-month % change



Source: Census Bureau, J.P. Morgan Asset Management. October 2017.

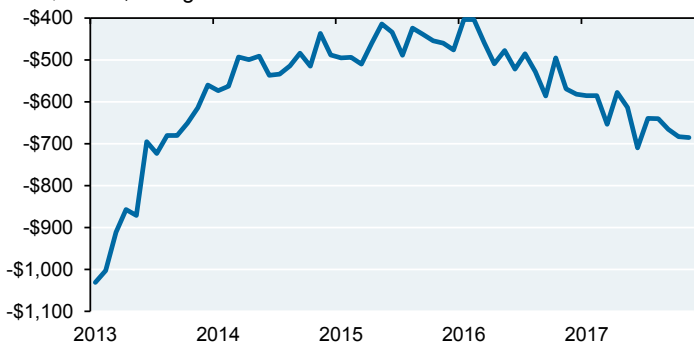
Rising surveys of prices paid usually point to higher inflation



Source: Federal Reserve Bank of Philadelphia, BLS. November 2017.

An unusual late-cycle increase in the budget deficit

US\$ billion, rolling 12 months



Source: US Treasury. November 2017.

Earnings, margins and multiples. In 2017, S&P earnings per share rose by 11%, supported by solid sales growth and rising margins. The tech sector was a standout in Q3, with 17% sales growth y/y and 81% of tech companies beating earnings expectations (see page 34 on the large contribution of tech stocks to S&P 500 returns). In 2018, we expect S&P 500 revenue growth of 3% to 10% for the various sectors, with the best results in tech, healthcare and energy. One supportive indicator: since Q1 2017, consensus 2018 estimates have declined by just 2% compared to an average decline of 8% over the last 5 years. While rising labor costs will hurt margins, we expect this to be offset by rising energy profits, financial deregulation and tax reform. Resilient US profit margins are heavily reliant on the tech sector, whose margins increased from 10% in 2004 to 20% in 2017. Ex-tech margins are roughly flat over that same period. We expect 8%-10% S&P 500 EPS growth in 2018, excluding the impact of tax reform, which could add another 5%-8% (see table on page 12).

S&P 500 revenue per share and earnings per share growth

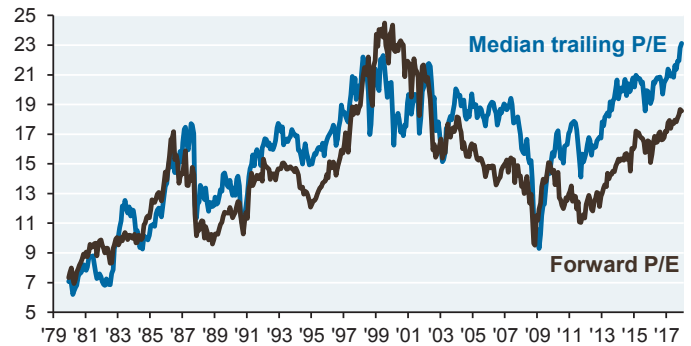
Rolling 4-quarter % change



Source: Morgan Stanley. December 2017. 4Q17 and beyond are estimates.

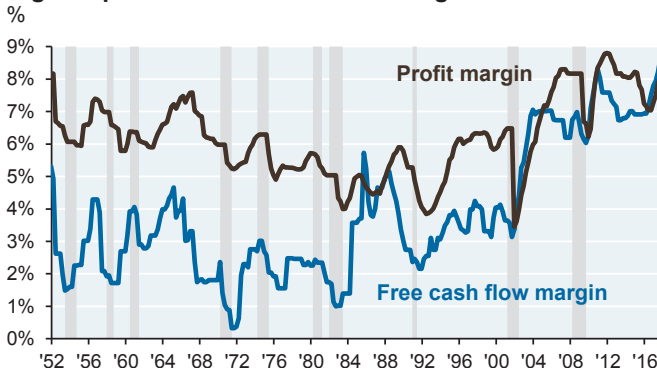
S&P 500 multiples rising

Price-to-earnings ratio



Source: Deutsche Bank. December 2017.

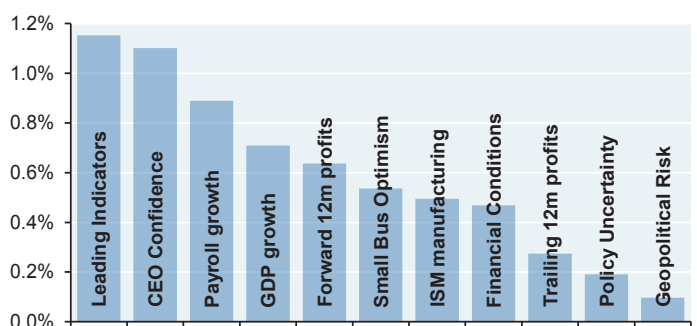
Highest profit and free cash flow margins since 1952



Source: Empirical Research Partners. Excludes financials, utilities and REITs, based on trailing 3-month basis. December 2017.

Investment signal rankings

Monthly S&P return differential based on investment signal, 1985-2017



Source: JPMAM, Conference Board, BLS, BEA, NFIB, ISM, Chicago Fed, S&P, Boston College, Stanford University.

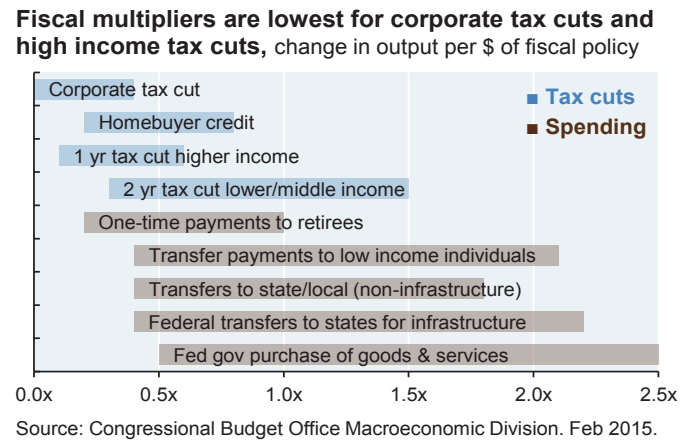
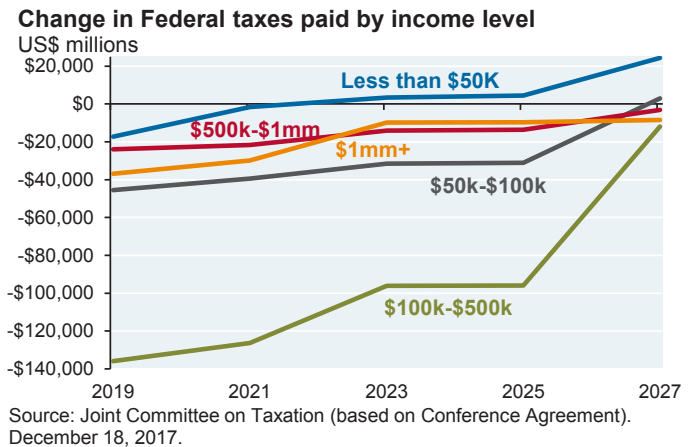
In our September 2017 *Eye on the Market*, we discussed investment signals that have been most useful for investors over the long run. The larger the bar in the chart above, the more powerful that signal was in predicting future returns. That's why we pay a lot more attention to leading indicators, CEO confidence, job growth and earnings expectations than to political uncertainty or geopolitical risk. Nevertheless, while we believe that politics usually don't have much of an impact on markets, it's still worth considering the **possible tailwinds and headwinds that the Trump administration could create for investors in 2018. Topics include tax reform, deregulation, immigration, military conflict, trade, and Presidential/Constitutional crises.**

UNITED STATES

Possible tailwind: tax reform

Please refer to [these slides](#) from our December 19th in-depth client webcast on the tax bill's implications, and a link to our interactive effective tax rate website

There isn't any cyclical reason for tax cuts and fiscal stimulus at this point in the cycle. Even without any tax cuts, the US is already running a large budget deficit at a time of full employment (see page 10), and Federal debt is projected to hit 90% of GDP by 2027. In the next recession, the deficit could easily exceed 6% of GDP. Furthermore, the largest beneficiaries of the tax bill are corporations and high net worth individuals, both of which have ample cash flow, plenty of liquidity and lower propensities to spend. So, I don't expect too much of a growth bump from the bill, maybe 0.3%. Most companies agree: ISM and Duke CFO surveys only show 5% to 15% of respondents saying that the tax bill would increase their capital spending plans. Another oddity: the bill entails more than \$1 trillion in tax cuts for individuals alongside the original goal of \$350 billion in corporate tax cuts. Tail wags dog.



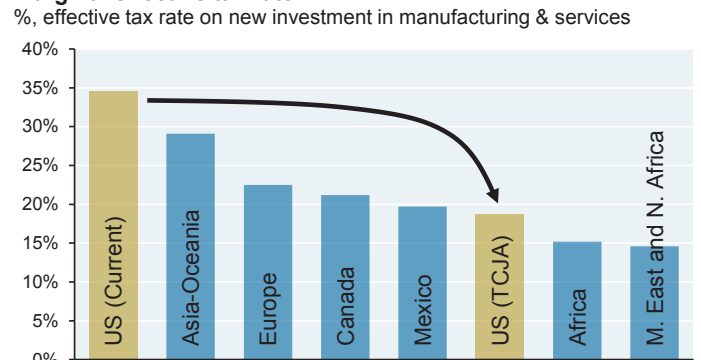
Still, there would be positive structural benefits from lower taxes on US corporations. Our sense is that the bill could boost S&P 500 EPS by 5%-8%. This estimate is based on a 21% corporate tax rate, limits on interest expense deductibility⁶, repatriation taxes on foreign earnings, buybacks resulting from repatriation and immediate expensing of capital expenditures. The bill reduces US marginal effective corporate tax rates from 34.6% to around 19% (more in line with G7 and OECD averages), and will probably reduce the pace of tax inversions in which US companies reincorporate overseas.

Tax scenario analysis: potential impact to S&P 500 EPS

	HOUSE plan	SENATE plan
	21% rate	21% rate
A S&P 500 Consensus 2018 EPS	\$146.00	\$146.00
B + Reduction in corporate tax rate	+ \$12.90	+ \$12.90
C - Limiting interest expense deductibility	- \$1.00	- \$2.80
D - One-time repatriation tax on foreign earnings	- \$3.80	- \$4.00
E + Cash repatriation induced buybacks	+ \$2.50	+ \$2.40
F Total benefit from tax reform (B + C + D + E)	+ \$10.60	+ \$8.50
Upside to consensus 2018 EPS	+ 7.3%	+ 5.8%
G S&P 500 EPS impact (A + F)	\$156.60	\$154.50
H + Immediate expensing of capex (CF benefit)	+ \$3.80	+ \$3.80
I Total cash flow benefit (G + H)	\$160.40	\$158.30

Source: JP Morgan Equity Strategy. December 14, 2017.

Marginal effective tax rate



Source: University of Calgary School of Public Policy, Mintz & Bazel. Corporate tax rates are GDP weighted. December 17, 2017.

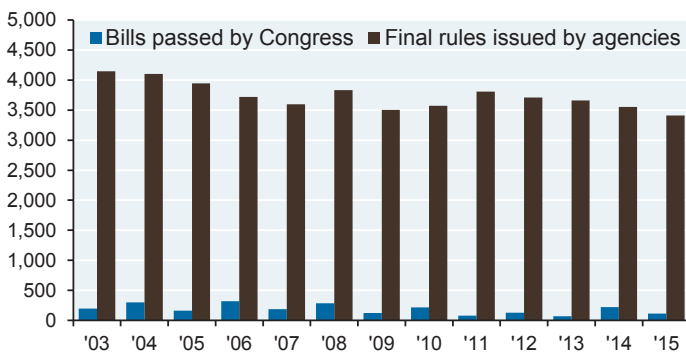
⁶ Only the most highly levered companies are much worse off under the plan, and is unusual for large companies. Based on our analysis, only 1% of S&P market cap would see free cash flow declines of more than 10% under the stricter EBIT test; for the Russell 2000, 3% of market cap, and for the high yield market, 8%. However, the stricter EBIT test is not applied until 2022. Until then, an EBITDA test is used, in which case the market cap of companies affected are <1% (S&P), 2% (Russell 2000) and 4% (HY). See webcast slides for more details.

Possible tailwind: deregulation

Aside from tax reform, another signature policy of the Trump administration has been deregulation. Trump has issued 54 Executive Orders (the highest annual pace since Carter), revoked 67 rules, withdrawn 630 planned regulations and delayed 944 others⁷. It's hard to track the impact of these efforts in real time, but the rise in CEO confidence and capital spending intentions after the election may reflect expectations of deregulatory activity. As a reminder, the "Clinton Recovery" of the 1990's was driven in part by deregulation of electricity and telecom (which was followed by a surge in non-residential business investment), free trade policies, a cut in the long term capital gains rate and a decline in US military spending. A few points on government regulation:

- Regulatory activity is best understood by looking at final rules issued by Federal agencies, which are 30x-35x higher than the number of bills passed by Congress
- While the largest number of new rules from 2009 to 2015 were passed by the SEC, other government agencies and departments were very active as well
- One consequence of this regulatory activity: the ease of starting a new business declined in the US from 2008 to 2016 when compared to the OECD and to the rest of the world
- Only a small fraction of all new rules and regulations are analyzed with cost and benefit information by the Office of Regulatory Affairs, and even when these reports did exist, government agencies typically did not rely on them when making major decisions about new regulations

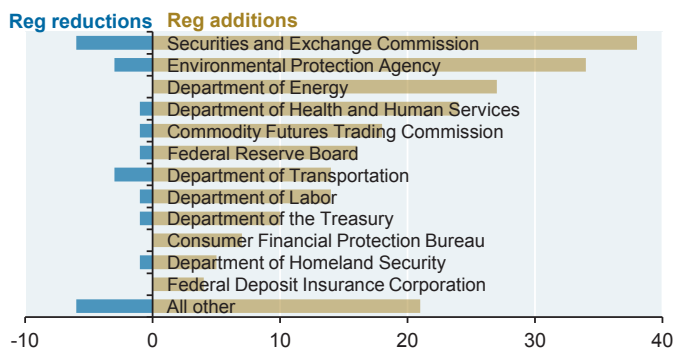
Regulation without representation



Source: Competitive Enterprise Inst., "Ten Thousand Commandments". 2016.

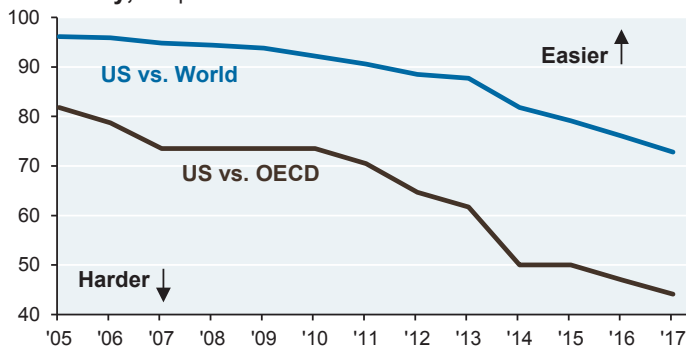
Regulations by sector since 2009

Number of rules with at least a \$100M annual economic impact



Source: Government Accountability Office, Heritage Foundation. 2015.

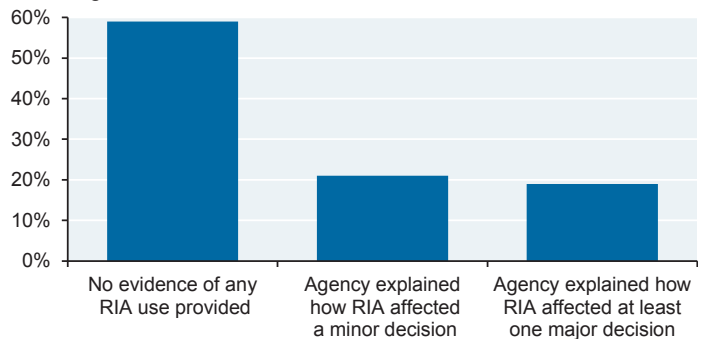
"Ease of starting a new business": in the US, getting less easy, US percentile rank relative to world and OECD



Source: World Bank Doing Business, JPMAM. October 2016. N = 189.

Agency use of Regulatory Impact Analysis (RIA)

% of regulations from 2008 - 2012



Source: Mercatus Center at George Mason University. March 2015.

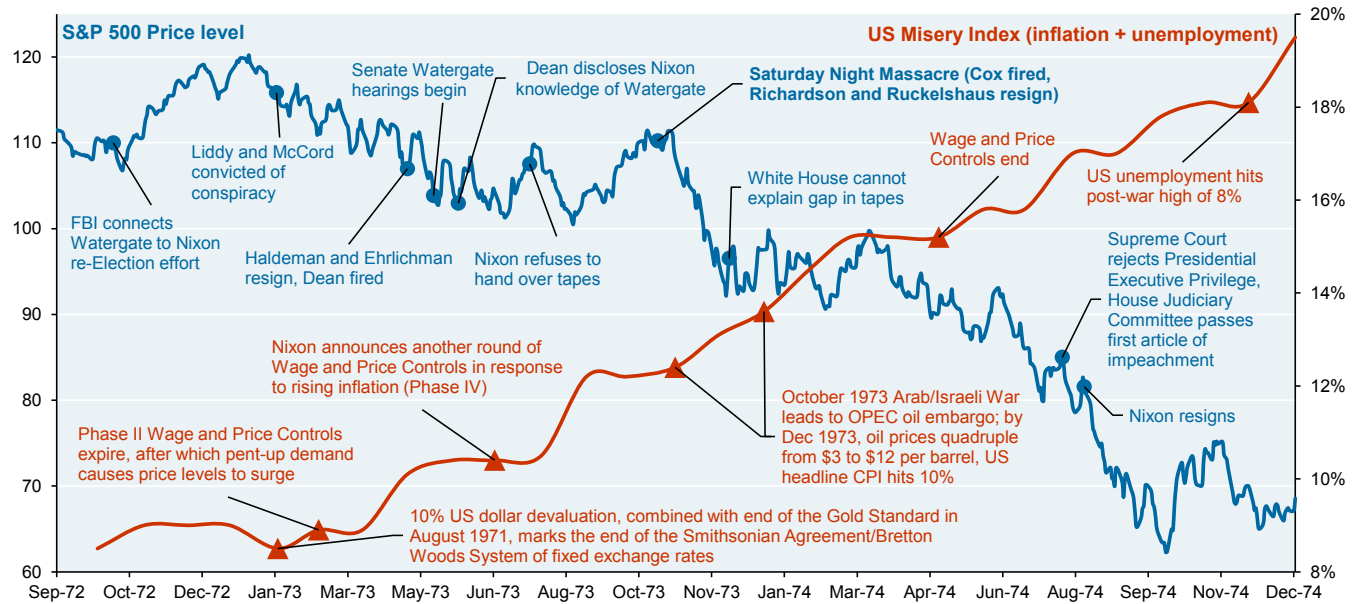
⁷ "Trump says his regulatory rollback is the most far-reaching", NYT, December 14, 2017.

UNITED STATES

Potential headwind: Presidential/Constitutional crises

The challenge with analyzing market reactions to such crises is that Watergate (1973/74) and the Starr Report (Sept 1998) also coincided with major economic and market troubles. In 1973/74, markets faced Wage & Price controls, sharply rising inflation and unemployment, an OPEC oil embargo and a declining dollar following the end of Bretton Woods fixed exchange rate system. In 1998, markets had to absorb the Long Term Capital Management unwind and the Russian balance of payments crisis. Those caveats notwithstanding, a Constitutional crisis in 2018 could negatively impact markets that would prefer to focus on the recovery. The negative market reaction to the October 1973 Saturday Night Massacre is one possible clue in this regard. Uncertainties related to current investigations by the Special Counsel may turn out to be a bigger market risk in 2018 than the Fed, tariffs, immigration curbs or North Korea.

S&P 500 weakness in 1973-1974: it's not easy to determine whether stagflation or the Presidential crisis was the bigger driver

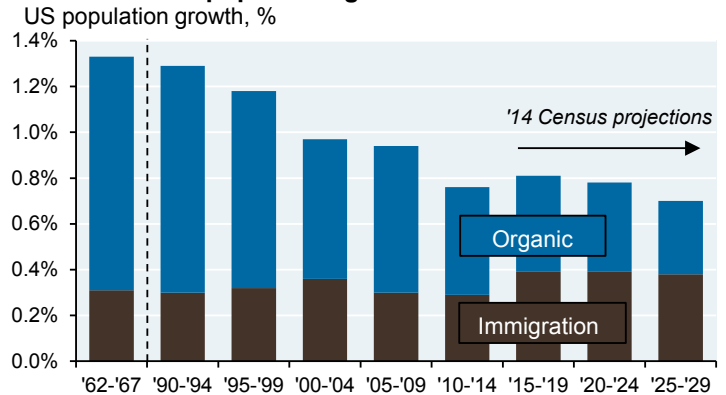


Source: JPMAM, Washington Post, US Federal Reserve, Bloomberg, 2017.

Possible headwind: deportations and restrictions on immigration

US labor markets are tightening, and part of the reason is slow growth in the labor supply. The Census Bureau now believes that half of US population growth comes from net migration. So, I can imagine markets reacting negatively to **large-scale deportations**⁸, or a materially slower pace of US immigration. Trump's Chair of the Council of Economic Advisors Kevin Hassett wrote in 2013⁹ that a doubling of immigrants could add 0.5% to growth, so we will have to see what policies actually emerge. There has been talk in the White House of a merit-based system like the ones used in Australia and Canada, but details are scarce.

Sources of US population growth



Source: Census Bureau, JPMAM, 2014.

⁸ According to a May 2017 piece in the *Atlantic*, arrests of undocumented immigrants in 2017 rose by 38% vs 2016. However, the pace of actual deportations was down 12%.

⁹ "America Needs Workers", Kevin Hassett, American Enterprise Institute, February 12, 2013

Possible headwind: trade wars

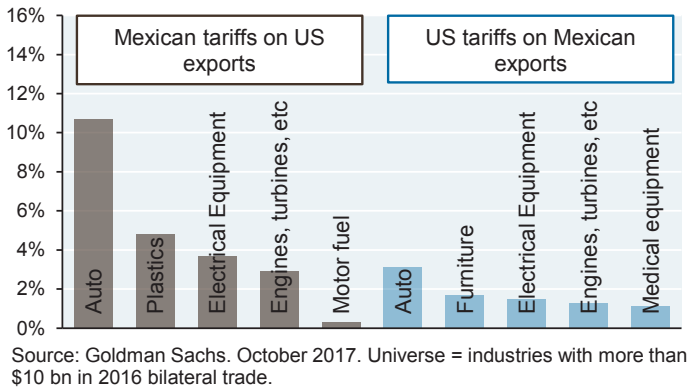
So far, Trump’s bark has been worse than his bite on **US trade policy**, which may be why the Mexican Peso rallied in 2017. However, NAFTA discussions are at a standstill and there’s an increasing likelihood that Trump will withdraw from **NAFTA** in 2018. There would be a six-month withdrawal period before it took effect, during which negotiations could continue. But let’s assume that the US withdraws. The impact on the US is likely to be modest:

- US trade with Canada would revert back to a prior 1988 free trade agreement
- Estimates of the cumulative gains to the US from NAFTA are only 0.1% to 0.2% of US GDP over its first 5-10 years¹⁰
- If tariff rates between the US and Mexico revert to Most Favored Nation levels, US tariffs applied to Mexican exports would only be 1.5%-3%, which would not affect US consumer prices very much¹¹
- An average tariff rate of 5% applied by Mexico to US exports would be material, but below the average yearly volatility in the US\$/Peso

Post-election Mexican peso sell-off has reversed
Mexican peso spot price vs. US\$

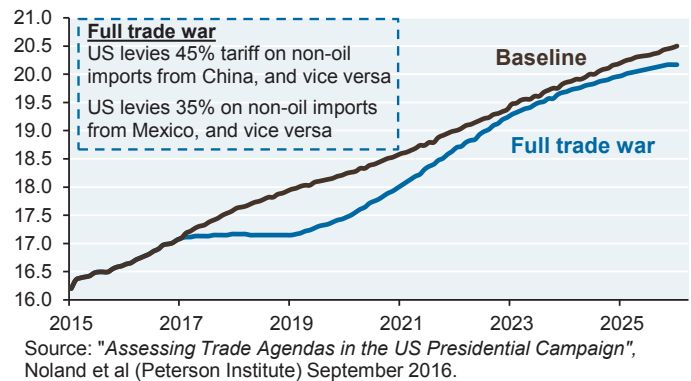


Effect of NAFTA withdrawal on select industries
Potential tariff rates assuming withdrawal from NAFTA



Before the election, we showed the accompanying chart from the Peterson Institute on consequences of a full trade war. However, this drastic outcome assumes a 45% two-way across-the-board tariff between China and the US, and a similar 35% tariff between Mexico and the US. This analysis was based on comments made by Trump during the 2016 campaign, and absent an unexpected major escalation of a trade war by all sides, is much less relevant to what may occur in 2018.

Full trade war and US GDP
Trillions of 2009 US\$



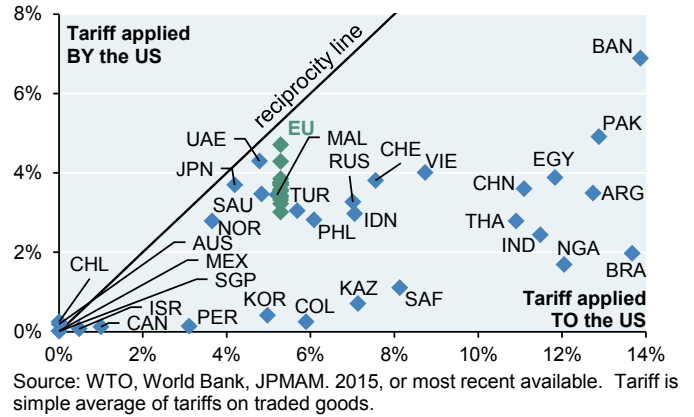
¹⁰ See NAFTA study from the US Congressional Budget Office (2003); the US International Trade Commission (2003); Rimmer and Dixon (2015; Melbourne); and Caliendo and Parro (2015; Yale/NBER/Fed).

¹¹ While US and Mexican tariffs on the overall auto category would be 3% and 10%, sub-categories such as light trucks could be subject to much higher tariff levels (25%-35%).

UNITED STATES

I sympathize with those who believe that US trade policy has been tilted towards maintaining low US consumer prices at the expense of US manufacturing jobs. Consider this chart showing the lack of reciprocity in US trade: US tariffs on foreign goods are consistently lower than foreign tariffs on US goods. There's a growing body of academic work examining the diffuse benefits of trade compared to concentrated costs for US manufacturing workers, with particular attention paid to consequences of China joining the World Trade Organization in 2001. A January 2016 analysis from the Center for Economic Studies (a dep't of the US Census) found that from 1992 to 2007, import competition from China and other developing economies increased the likelihood of job loss among US manufacturing workers with less than a high school degree, but not among workers with a college degree¹². This [link](#) explores some of these studies and conclusions. At the minimum, as MIT economics professor David Autor writes, "it is incumbent on the literature to more convincingly estimate the gains from trade".

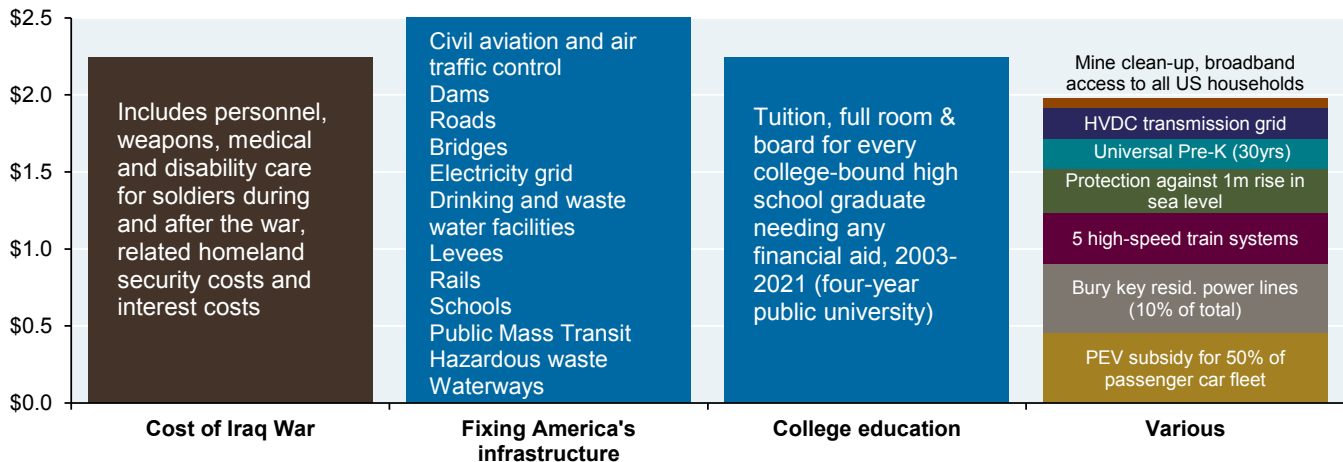
A general lack of tariff reciprocity



Possible headwind: war with North Korea

Here's a chart I pulled together in 2014 on the financial opportunity cost of the Iraq War¹³ (i.e., what else the US could have done with \$2.2 trillion, the latest estimate of the war's cost). It's a good place to start regarding possible economic costs of a prolonged conflict with North Korea.

The staggering financial opportunity cost of the Iraq War
2014 USD trillions



Source: Brown University Watson Institute for International and Public Affairs; Neta Crawford, Boston University (cost of Iraq War); College Board; US Dept. of Education; Edison Electric Institute; American Society of Civil Engineers; Earthworks; Hall Energy Consulting; Next Big Future; Northwestern University; FCC; Vrije Universiteit; US Dept. of Transportation; National Affairs; US Dept. of the Interior; Scientific American; US Dept. of Energy; EIA; JPMAM. 2014.

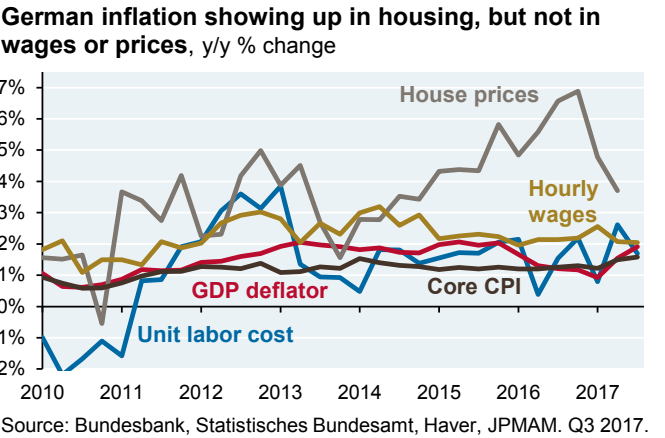
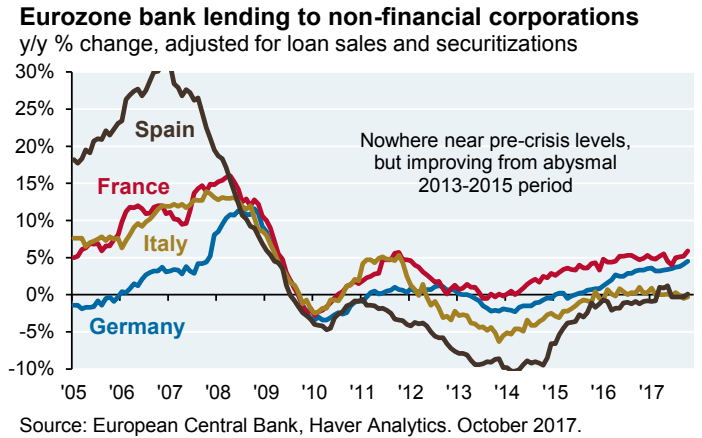
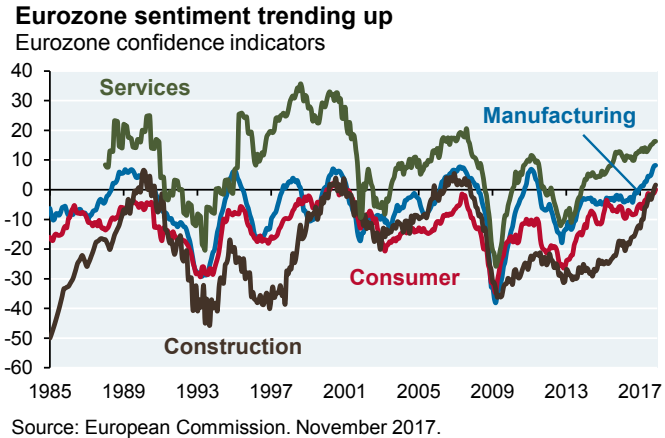
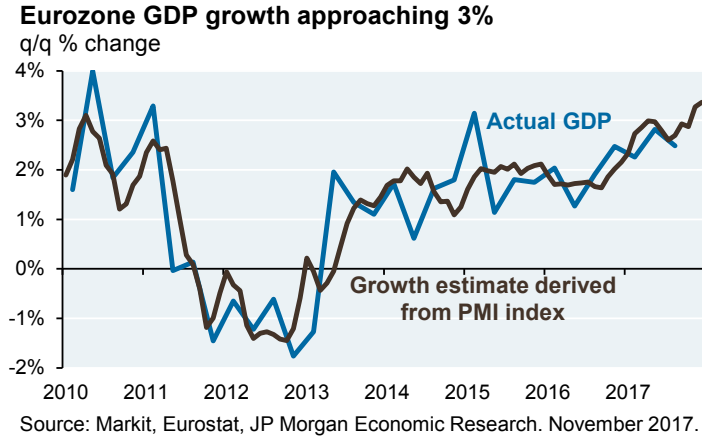
¹² "Cheap imports and the loss of US manufacturing jobs", Cooke, Kemeny and Rigby, Center for Economic Studies (Census Bureau), January 2016.

¹³ When political and military leaders look back at the Iraq War, their reassessments could be similar to those written on Vietnam. **Former Defense Secretary Robert McNamara's 1995 mea culpa on Vietnam** conceded that the war should have been avoided; that it could have been halted at several key points after it started; that he and other advisers to President Johnson suffered from ignorance, inattention, flawed thinking and political expediency; that their strategy had little chance of success; and that communism would not have prevailed in Asia, with the international strategic position of the United States no worse than it is today.

Europe: another year of growth in 2018

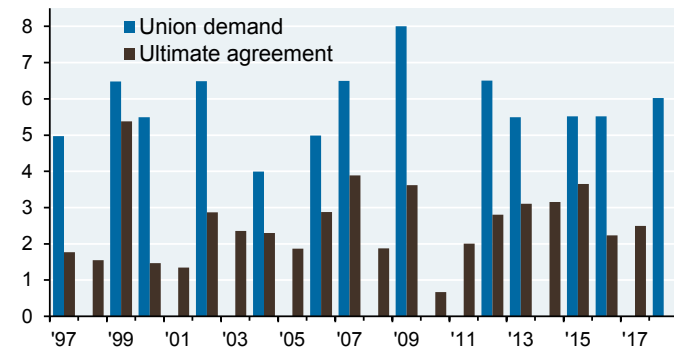
I wasn't sure I would ever see Eurozone GDP growth hit 3% again, but here we are (at least that's the level implied by leading indicators: the Eurozone manufacturing PMI survey is at its highest level since 1997). Eurozone economic sentiment is close to a 17-year high, employment intentions are rising, and consumer intentions to make a major purchase have increased notably in recent months. The recovery looks broad across sectors and countries, albeit with much lower levels of corporate debt growth when compared to pre-crisis levels. European Commission surveys show a spike in the number of companies saying equipment is a factor limiting production, so perhaps stagnant European capital spending will start to pick up as well. All of this has taken place despite the recent rise in the Euro.

The biggest risk for 2018: a change in ECB policy to tighter money, brought on perhaps by a sharp rise in German inflation, and/or a "smoothing" of policies in advance of the end of Draghi's term in late 2019. However, other than home prices, most prices in Germany are rising at 2%, levels which do not appear to require changes to the ECB's timetable for scaling back asset purchases. While the board of IG Metall's union has requested a pay raise of 6%, in the past, the actual agreements were roughly half of union demands (see chart, following page). This is something we will have to watch closely, along with surveys showing labor shortages in the Eurozone. As in the US, wage inflation may cause more headaches for the ECB than consumer price inflation.



IG Metall (Germany) wage demands and outcomes

y/y % change



Source: IG Metall, J.P. Morgan. 2017.

Euro area: increasingly hard to find workers

Survey data, % indicating labor as a factor limiting production

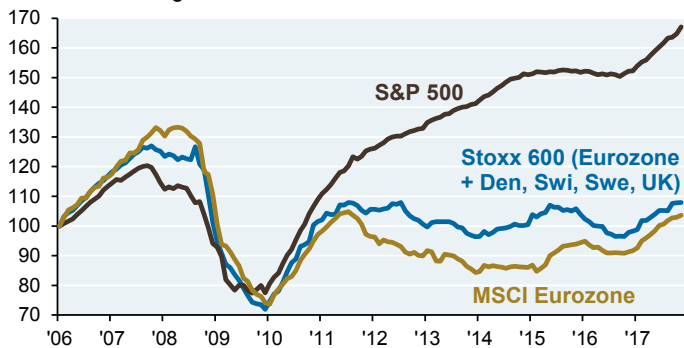


Source: European Commission. 3Q 2017.

Eurozone earnings have a lot of catching up to do vs the US. The good news for investors in the Eurozone: the region has higher “operating leverage” than the US, UK or emerging economies. In other words, one unit of revenue growth results in larger amounts of net income. To be clear, all regions have substantial operating leverage, which means that rising global growth should translate into continued strong earnings growth, even if margins are no longer expanding. The last chart shows how regional earnings growth estimates for FY2018 are roughly the same as in FY2017, with the exception of EM.

European earnings levels lagging US

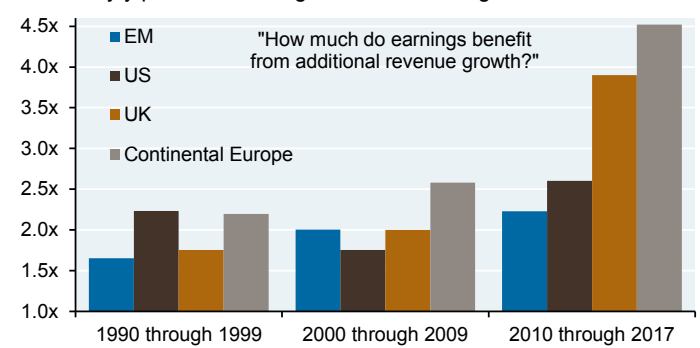
12-month trailing EPS, Index, Jan 2006 = 100



Source: IBES, JPMAM. November 2017.

Operating leverage highest in continental Europe

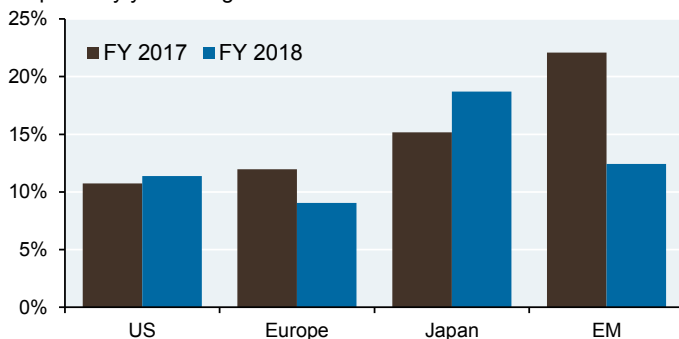
Ratio of y/y pre-tax income growth to revenue growth



Source: Empirical Research. February 2017.

Earnings growth estimates

Expected y/y % change

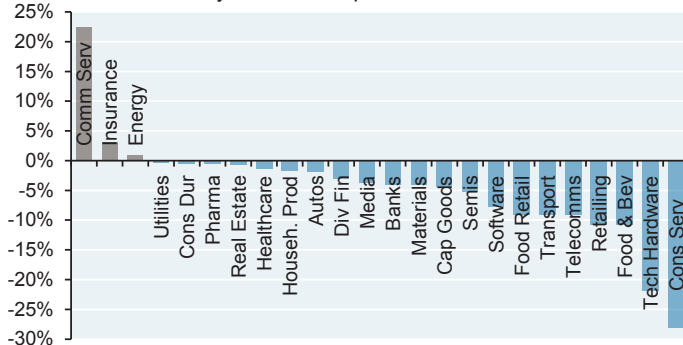


Source: IBES. December 2017. Indices used: S&P500, Stoxx600, MSCI Japan, MSCI EM.

However, return on equity for European industries are generally below US levels, which may explain why European valuations are below US levels as well¹⁴. Furthermore, the benefits of investing in the Eurozone in 2017 compared to the US were modest, and entirely due to the rally in the Euro. In local currency terms, the Eurozone underperformed the US again in 2017. We have written for many years about the benefits of a **barbell** in which equity investors overweight the US and EM vs underweight positions in Europe and Japan. While the barbell's outperformance was small in 2017, it was still positive. It's remarkable how consistently the barbell's outperformance has occurred since 1988. In 2017, the strong performance in EM vs Japan offset the modest outperformance of Europe vs the US. We don't have a very strong view on the barbell for 2018, and recommend a balanced global portfolio.

Europe vs. US: return on equity

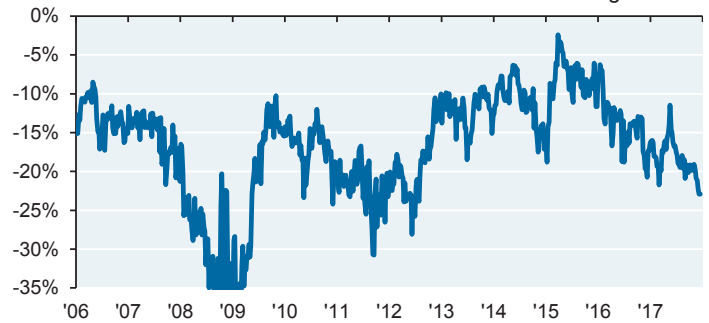
Difference in ROE by sector, Europe minus US



Source: MSCI, Bloomberg, JPMAM. November 2017.

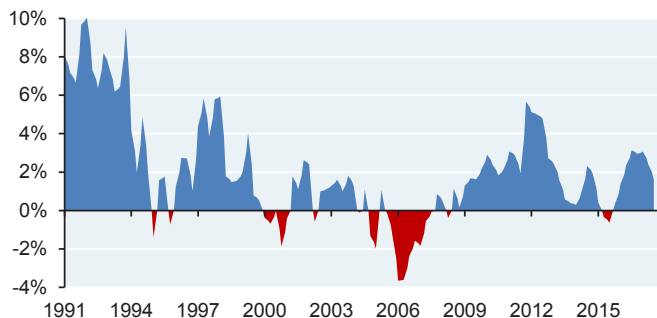
Europe: large P/E discount vs the US, but nowhere near deep value

Stoxx 600 P/E discount vs US S&P based on forward earnings



Source: Datastream, J.P. Morgan Asset Management. Dec 15, 2017.

Benefits of overweighting US/EM, underweighting Europe/Japan, 3-year rolling out (under) performance



Source: Bloomberg, J.P. Morgan Asset Management. Q3 2017. All equity portfolio is rebalanced quarterly and assumes no currency hedging.

Regional equity market performance

Region	US	EM	EUR	JPN
MSCI Weight	57%	12%	22%	9%
Delta vs MSCI	10%	5%	-10%	-5%
Barbell weights	67%	17%	12%	4%
\$ return	22%	34%	25%	24%
Local cur return	22%	28%	14%	20%

Source: Bloomberg. December 19, 2017.

Overweight US-EM, Underweight EUR-JPN, year to date return, percent 0.3%



¹⁴ *Start dates.* Our relative P/E chart starts in 2006. Before 2006, IFRS required European companies to amortize goodwill, and the amounts involved were at times substantial. As a result, pre-2006 P/E multiples for Europe are not exactly comparable to post-2006 multiples, and can distort time series comparisons vs the US.

Sector differences. The S&P 500 has much higher weights to technology than the Stoxx 600, and lower weights to Financials and Consumer Staples. Even when we adjust for these differences and compute "sector-neutral P/E ratios", the P/E discount for Europe looks very similar to the one shown above.

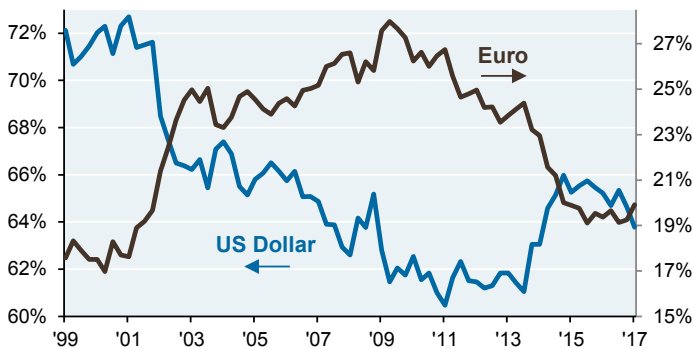
While there's a lot of optimism regarding the Eurozone's recovery, there are still plenty of unresolved structural issues. In our view, they will become more relevant for markets when the next recession hits, perhaps in 2020 or later:

- Foreign exchange reserves allocated by global central banks to the Euro declined from 2010 to 2016 and have now only begun to stabilize, a sign that central banks may not be not totally convinced in the Euro as a store of value
- Germany's economy continues to power ahead of France, a by-product of the structural issues that we have written about many times before. Note in the last chart how German banks are less and less interested in lending to Spain and Italy, requiring the ECB to do a lot of heavy lifting
- There's positive news in France on its **own reforms**: new rules designed to make its notoriously rigid labor markets more flexible¹⁵, elimination of the asset tax and reduced capital gains taxes. However, I do not believe that Macron's calls for **Eurozone-level reforms** will be happening anytime soon (fiscal, military, asylum and tax harmonization across Eurozone countries)

EUROPE

Global currency reserves

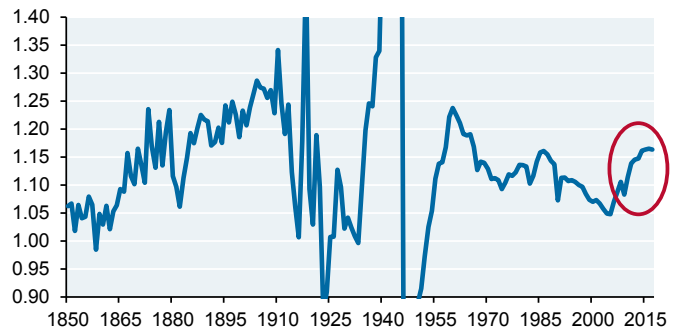
% of global currency reserves allocated to the euro and US dollar



Source: International Monetary Fund, FactSet, JPMAM. 2017.

Franco-German wealth gap

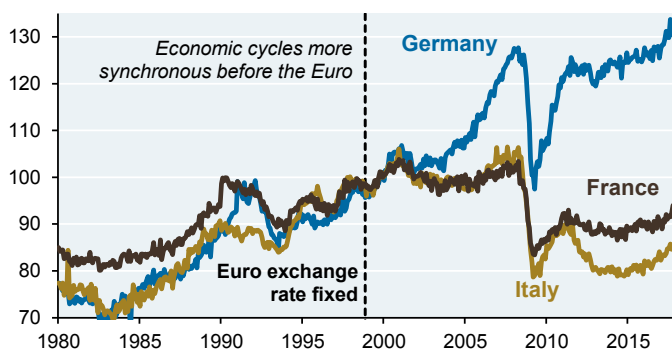
Germany real per capita GDP divided by France, ratio



Source: Angus Maddison, Conference Board, JPMAM. 2017.

Death in Venice

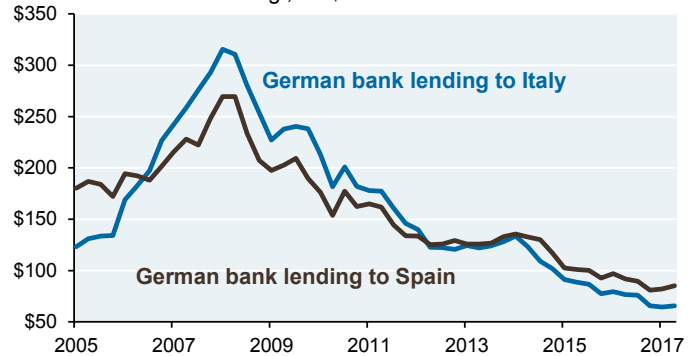
Industrial Production Index, 12/31/1999 = 100



Source: Respective national statistical agencies. October 2017.

German banks less willing to lend to periphery banks

German outbound lending, US\$ billion



Source: Bank for International Settlements. 2Q 2017.

¹⁵ **Macron's labor market reforms are the kind of thing that right-of-center French politicians have been trying to do for decades.** One key component is the decentralization of collective bargaining down to individual companies instead of across entire industries, with even more flexibility for companies with less than 50 workers who can now negotiate directly with employees instead of their unions.

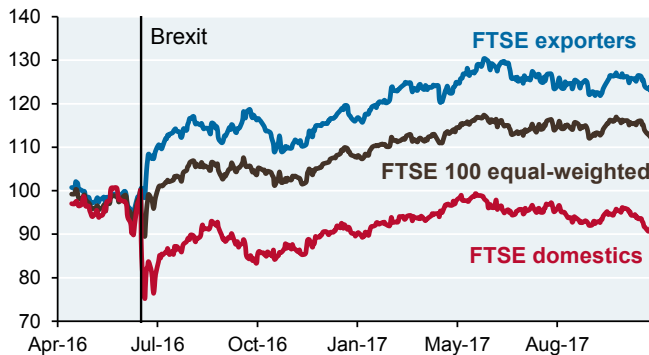
What about the **UK**? The market is doing a good job distinguishing between winners (exporters, manufacturing) and losers (banks, domestically focused companies and construction) resulting from a weaker pound. It's hard to say what UK separation from the EU might look like, since at the rate things are going, new arrangements may not be in place by the scheduled exit of April 2019. Exit payments in the tens of billions of Euros, the rights of EU and UK citizens in each other's jurisdictions and issues related to the UK-Ireland border haven't been concretely figured out yet. The UK could be subject to the European Economic Agreement, but that would subject the UK to its trade, immigration and regulatory policies. Reverting to WTO standards would give the UK more independence, but reduce access to the single market. Some refer to the EU's position as the **"Impossible Trinity"**¹⁶, since the following 3 positions cannot all be adhered to:

1. No hard border between the Republic of Ireland and Northern Ireland
2. No internal trade frictions inside the United Kingdom
3. The United Kingdom leaves the Single Market and Customs Union

However, it could take years before the impossibility of this trinity comes to a head and forces more concrete decisions. It looks like a "Hard Brexit" is off the table, since Prime Minister May appears to have accepted EU negotiating demands on budget payments, EU citizens' rights and the Irish Border. I would not be surprised if the person writing the *Eye on the Market* Outlook in 2021 is **still discussing Brexit negotiations and timetables**, given transition period extensions that may occur in the future.

Brexit winners and losers

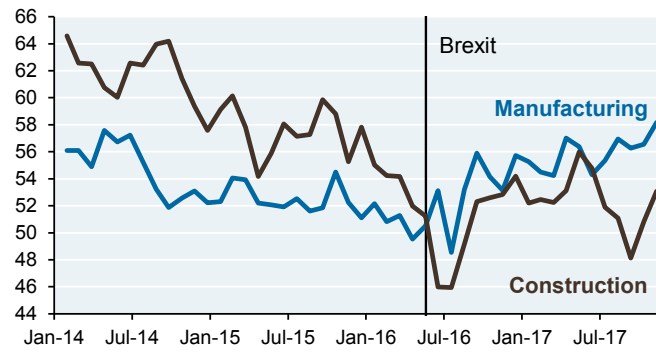
Index, 100 = June 23, 2016



Source: FTSE, J.P. Morgan, Bloomberg. November 2017.

Brexit impact on business surveys

Index, 50+ = expansion



Source: Markit. November 2017.

¹⁶ "Brexit: Can kicked to 2021 at least", Lombard Street Research, December 8, 2017

Emerging Markets: the recovery continues

In our 2016 Outlook, we focused on opportunities in emerging markets by highlighting the following:

- low levels of investor optimism on EM equities, and low levels of investor positioning
- EM price to book ratios vs developed markets that had converged toward levels last seen during the 1998 crisis
- declines in EM currencies (ex-China) that could help resolve balance of payments problems

So, we’re not surprised to see emerging market equity gains of 50% on the MSCI EM index since Jan 1 2016. While EM optimism, valuations and currencies have picked up since then, we believe there’s still time left in the current EM cycle for investors. The stabilization of Chinese data has been an important factor supporting the global recovery. An illustrative data point: Chinese auto sales are up by 5 million units over the last 2 years, an amount not that far below combined auto sales in Germany and France¹⁷.

Emerging markets: real effective exchange rates

GDP-weighted broad REER (excluding China)



Source: Bank for International Settlements, IMF, JPMAM. October 2017.

MSCI Emerging Markets price-to-earnings ratio

Price to 12-month forward earnings ratio



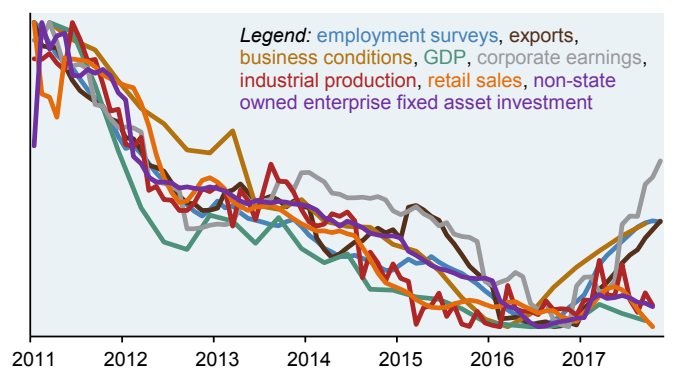
Source: IBES, Datastream. November 2017.

MSCI Emerging Markets profit margins strengthening



Source: Bloomberg. 3Q 2017.

China economy: stable to improving



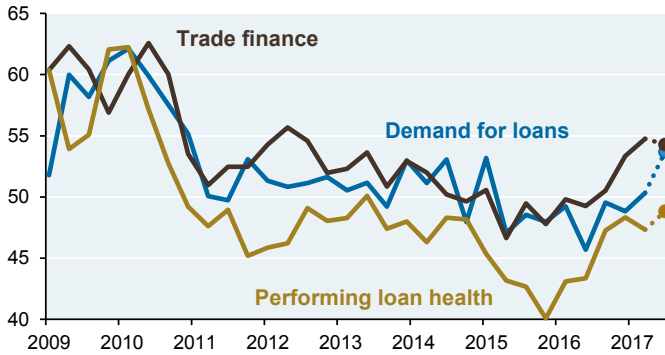
Source: CFLP, Markit, CC, PBOC, CNBS, MSCI, JPMAM. November 2017.

¹⁷ Suttle Economics Daily Comment, December 11, 2017

EMERGING MARKETS

EM lending conditions are starting to pick up, foreign direct investment is returning, exports have rebounded to pre-2014 levels and the pick-up in EM growth has coincided with a recovery in US oil & gas investment.

EM bank lending conditions improving
Diffusion index



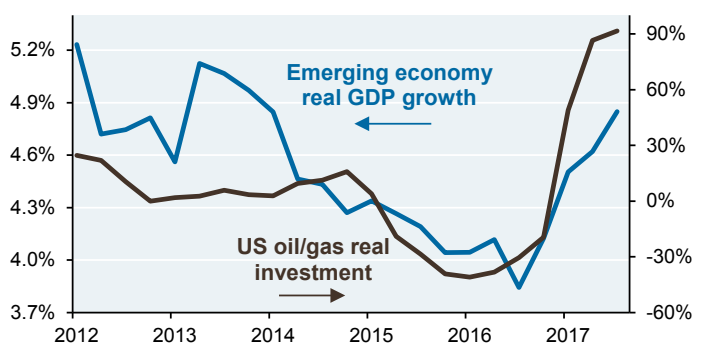
Capital inflows (FDI and portfolio investment) into EM
US\$ billions



Emerging Asian exports rebounding
Export value, y/y % change, 3mma



Commodity supercycle downturn comes to an end
y/y % change

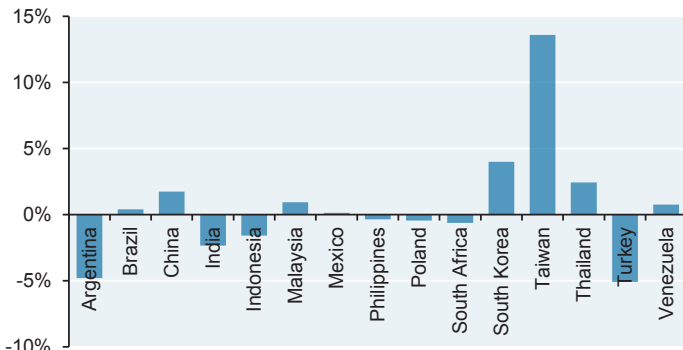


EMERGING MARKETS

Times have changed since the 1980's and 1990's when most EM economies ran large current account deficits and relied extensively on foreign capital. Of 15 EM economies with the largest investible equity and fixed income markets, only Argentina and Turkey still run large external deficits. Most other countries are close to balanced, or run a surplus. Furthermore, since 2014, EM countries as a whole have reduced their reliance on foreign capital.

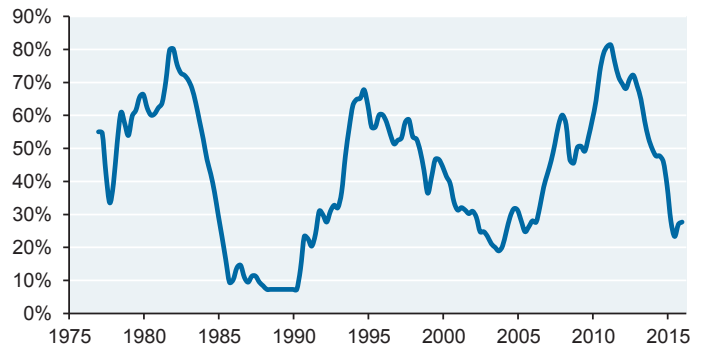
Another sea change: **EM foreign exchange reserve levels are higher**, which gives many EM countries greater flexibility to manage exchange rate declines, monetary policy and growth when capital outflows accelerate. In our view, this is why the balance of payments problems which hit some emerging market economies in 2014 were less severe than prior episodes, at least as it relates to the impact on investors. You can see evidence of this in the last chart, which also shows how a balanced approach with EM debt and EM equity delivered a less volatile ride than EM equities alone.

Current account balance
% of GDP



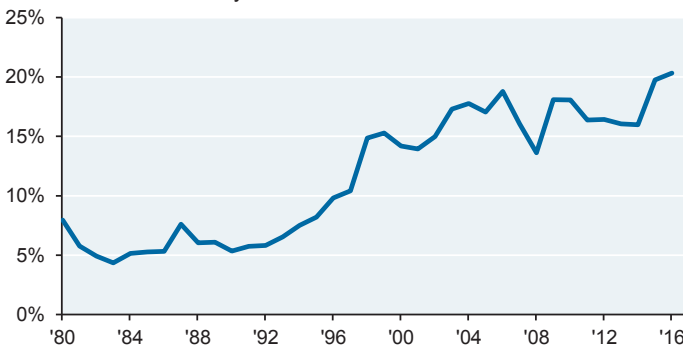
Source: Central banks. 2017.

EM reliance on foreign capital: at lows for the cycle
% of EM countries significantly reliant on foreign capital



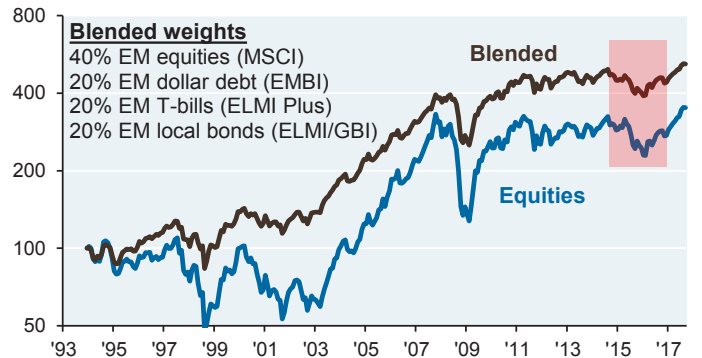
Source: Bridgewater Associates. July 2016.

Emerging markets FX reserves
Median level of country reserves as % of GDP



Source: IMF, World Bank, Haver. 2017.

Emerging markets portfolio returns
Index, 100 = December 1993



Source: Bloomberg, JPMAM. November 2017.

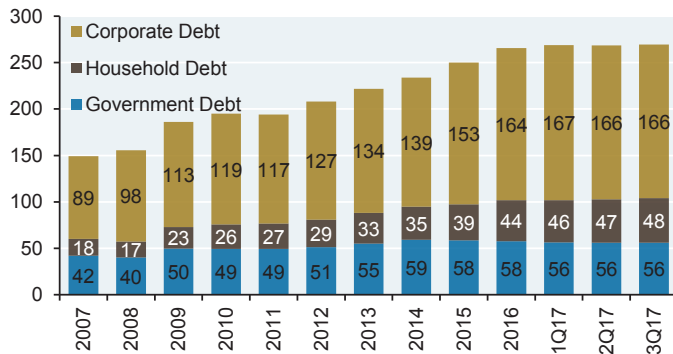
As for China, all eyes are on the rise in its debt. The IMF estimates that China would have grown by 5.5% from 2012 to 2016 instead of 7.25% without this increase¹⁸. In the same report, the IMF noted that in 43 cases where debt/GDP rose by more than 30% over 5 years, only 5 did not lead to a crisis, and that China's debt service ratio is higher than the US ratio in 2007. China has been gradually tightening the cost of money, which is showing up in slightly lower rates of growth and rising defaults.

¹⁸ "People's Republic of China: Selected Issues", IMF Country Report No. 17/248, August 2017.

However, unlike many of the countries in the IMF analysis, China is not a free-market country. Its government controls many of the levers which were catalysts in Western banking crises:

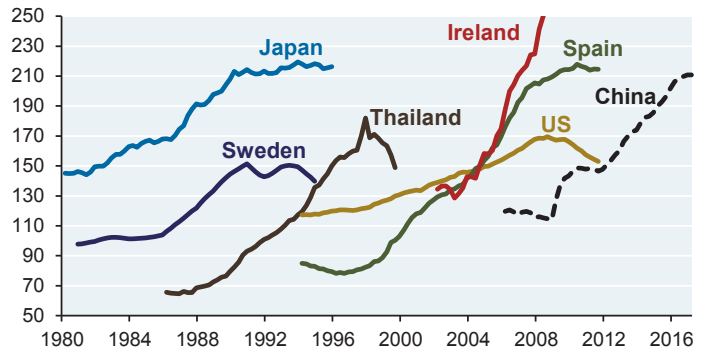
- The majority of China’s debt is internally held (external debt is only ~15 % of GDP, the lowest in the emerging world), and its banks hold foreign assets that are \$500 billion greater than their external liabilities. Debt resolution via asset management vehicles and debt for equity swaps may dampen growth, but are unlikely to cause large balance of payment problems
- Around 55%-60% of “corporate” debt has been issued by centrally or locally controlled state-owned enterprises, which we believe entails government backing, or at worst, “controlled” default
- A lot of this bad debt is held by China’s largest 5 banks and its Postal Savings Bank, which are wholly- or majority-owned by the central government, allowing the leadership to control the process by which losses are recognized
- Stable retail deposits represent 80% of liabilities for China’s state owned banks, implying much less reliance on bonds or wholesale funding than Western banks

Total China economy-wide debt
% of GDP



Source: People’s Bank of China, NBS, JPM Economic Research. 3Q17.

Pre-crisis household and corporate debt
% of GDP

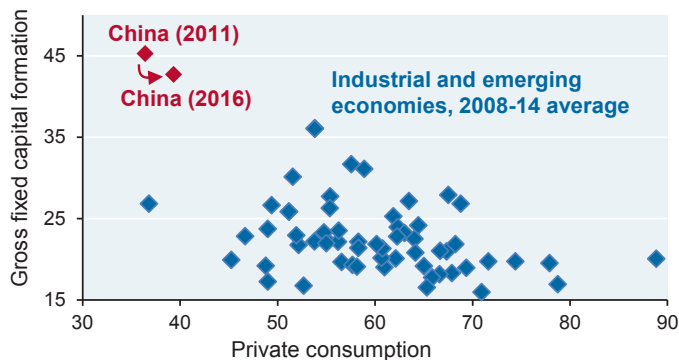


Source: Bank for International Settlements. 2017.

EMERGING MARKETS

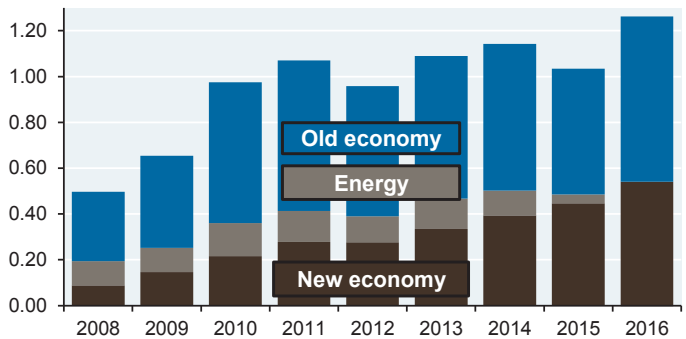
The good news on the long run: rising profits from “new economy” sectors. China has a long journey ahead in its transition to a more balanced economy from one reliant on capital spending (see chart, left). Now that China has the highest production wages in developing Asia, it will need greater efficiencies in the years ahead, rather than simply relying on inexpensive human capital. However, while old economy sectors are still a large part of the Chinese corporate sector, there’s a growing contribution from new economy sectors: consumer staples, consumer discretionary, healthcare and technology.

Slowly switching from investment to consumption
% of GDP, both axes



Source: World Economic Outlook and IMF. 2017.

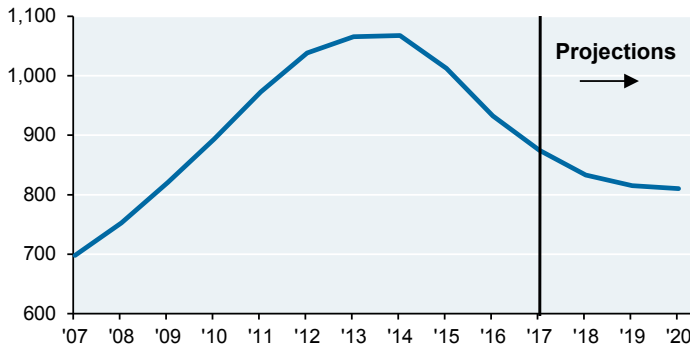
China A-share reported profits
RMB, trillion



Source: Bloomberg, JPMAM, Gavekal. 2016. Energy includes 6 Sinopec & PetroChina companies.

Other good news on the long run: progress on restructuring state owned enterprises. In addition to the trends below, our China analysts also observe ongoing efficiency improvements in industrial enterprises, including a gradual decline in industrial enterprise liability-to-asset ratios, lower product inventory turnover days and reduced product unit costs¹⁹. FX outflows have also slowed, a consequence of enforced capital controls, a more stable Yuan and foreign inflows into China's short term bond markets, which yield around 4.5% for six month paper.

Chinese steel capacity
million tonnes



Source: Credit Suisse. April 12, 2017.

Steel sector profitability has returned
Share of Chinese companies making a profit, %



Source: Mysteel, JP Morgan Economic Research. November 2017.

Chinese industrial enterprises' profits and sales revenue
y/y % change



Source: NBS, JP Morgan Economic Research. October 2017.

Chinese manufacturing fixed asset investment & industrial enterprise sales revenue, y/y % change



Source: NBS, JP Morgan Economic Research. October 2017.

Chinese industrial enterprise capacity utilization index
Diffusion index, seasonally adjusted



Source: NBS, People's Bank of China, JPM Economic Research. Sep 2017.

¹⁹ "China: Industrial profit growth picked up to 24% oya in August", J.P. Morgan Asia Pacific Economic Research, Grace Ng and Haibin Zhu, September 27, 2017

EMERGING MARKETS

Japan: some cyclical upside but no change to long term outlook

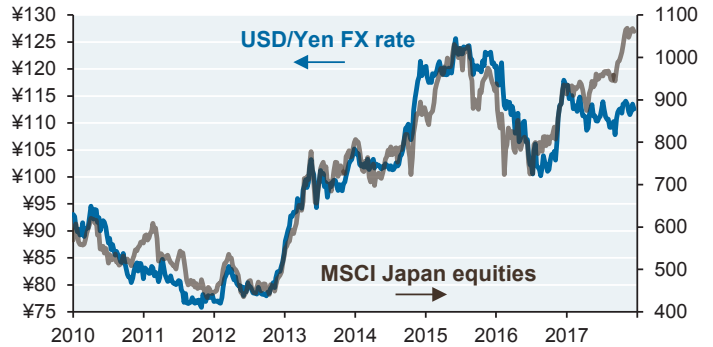
Japan is also participating in the global recovery: 7 straight quarters of real GDP growth, exports growing at the fastest pace in 4 years, and increases in labor demand, factory output, machinery orders, capital spending and wholesale prices. The first chart shows the Tankan survey of business conditions, now at its highest level since the early 1990's. The second chart shows how Japanese equities have decoupled, at least temporarily, from every minor movement in the Yen.

Japanese business conditions improving
Tankan survey, diffusion index of favorable less unfavorable



Source: Bank of Japan. 3Q 2017.

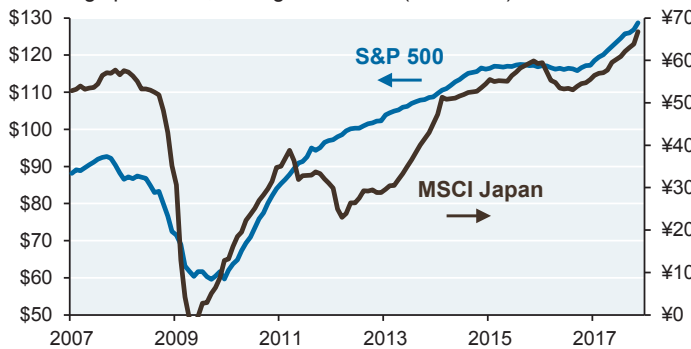
Japan equities and the Yen
Exchange rate



Source: Bloomberg. December 15, 2017.

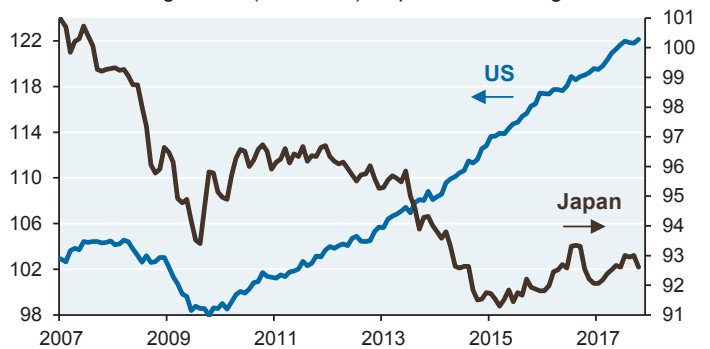
Corporate profits are booming in Japan, so much so that they became a political football in the recent elections, with opposition politicians calling for a tax on corporate reserves to encourage companies to invest more and raise wages. The larger problem for Japan is that over the last few years, while corporate profits have recovered, household incomes have not; this is one of the reasons for chronically low GDP growth in Japan. This stands in contrast to the US, where household incomes rose alongside rising profits after the global recession in 2009. Maybe this will change now that the Japanese employment market is tight (the ratio of vacancies to applicants at its highest since 1974, and there has been a surge in the number of companies reporting labor shortages). But this has been the Achilles heel of the Japanese recovery, and investors seem reluctant to muster much enthusiasm to be overweight Japan given such a one-legged recovery²⁰.

Both the US and Japan had a profits rebound...
Earnings per share, trailing 12-months (both axes)



Source: Thomson Reuters IBES, Datastream. November 2017.

...but household incomes only rose in the US
Real HH earnings index (both axes), Japan is 3-mo. avg.



Source: BLS, BEA, Japanese Ministry of Health. October 2017.

²⁰ Flow analyses by JP Morgan Global Economic Research suggest that foreign non-leveraged institutional and retail investors stand currently mid-way between the pre-Abenomics lows of 2012 and the post Abenomics peak of mid-2015, and have a neutral position on Japanese equities.

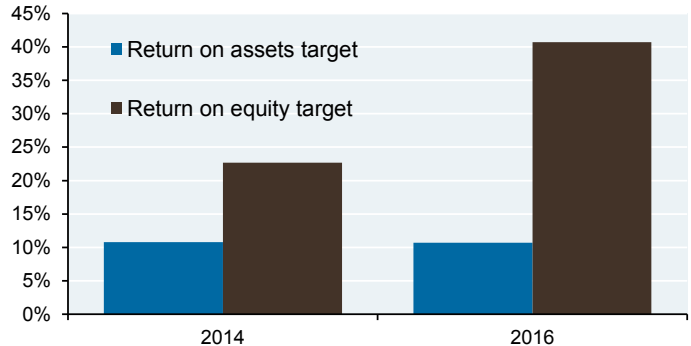
Even so, we feel better about exposure to Japan than we have in a very long time. There are a couple of trends taking place that are worth discussing. First, **there's the emergence of a Japanese corporate governance renaissance:** a pickup in M&A and buybacks, more companies adopting targets for return on assets and return on equity, and an increasing number of companies with independent directors and performance-based compensation for management. These trends indicate a greater focus on investor concerns, and represent a departure from the last couple of decades. Second, as shown in the last chart, Japan has finally been able to create a set of policies that has led to **increased female participation in the labor force.**

Announced cash M&A and buybacks in Japan
% of GDP, 4-quarter moving average



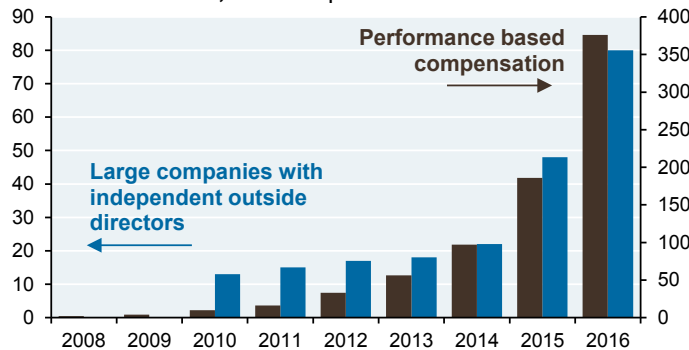
Source: Bloomberg. Q3 2017.

Companies citing ROE/ROA targets in medium term plans, % of companies (n=841)



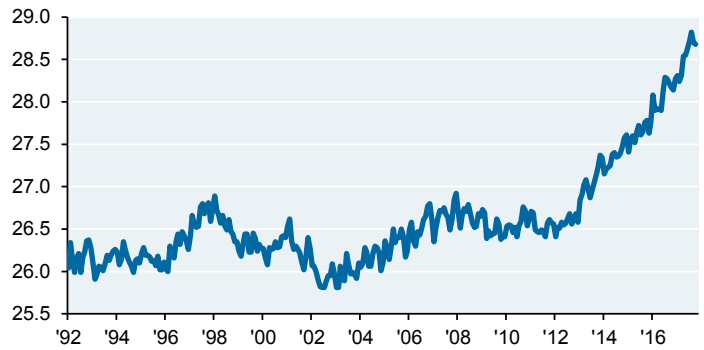
Source: Japan Ministry of Economy, Trade, & Industry, Goldman Sachs. 2016.

Performance based compensation and independent outside directors, # of companies



Source: Goldman Sachs, Willis Towers Watson. 2016.

Increasing female employment in Japan
Number of employed females, millions



Source: Ministry of Internal Affairs and Communications. October 2017.

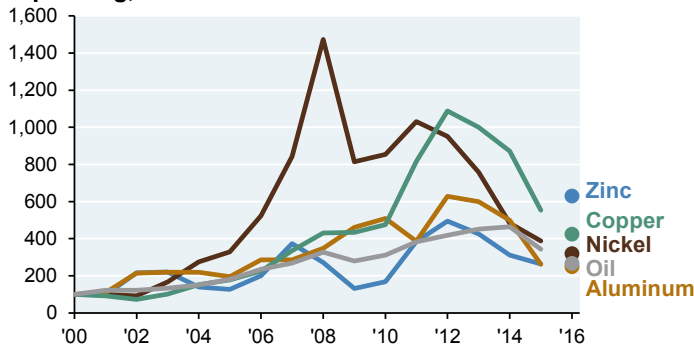
Japan still has a gargantuan amount of government debt and the worst demographics in the developed world, but from a medium term cyclical perspective, Japan seems poised to offer more opportunity to investors than it has in some time. Abe retained a two thirds supermajority in the snap elections last October, allowing the government to continue its efforts to reflate Japan. While Japan's deflation era (2000-2012) has ended, inflation is still well below 1% and the government's target of around 2%.

JAPAN

[ST1] Industrial commodity prices: more room to rise as global economy recovers

In February 2016, some analysts thought the commodity super-cycle unwind still had a long way to go, since in prior episodes, it took 15-30 years after the peak for the commodity super-cycle to end²¹. However, in prior instances, commodity prices fell by ~50%, which is how far they had already fallen by the spring of 2016. As a result, we wrote that the worst was probably over and that it was time to look for opportunity in commodity-related investments again. In January 2017, we noted how the decline in industrial metals exploration and production spending had fallen sharply from its 2008-2012 levels, and that even though inventory levels were still high, we believed that the E&P decline would be more important to markets²². Since then, industrial metals prices have risen back to 2014 levels.

Global copper, aluminum, nickel, zinc and oil capital spending, Index, 2000 = 100



Source: Wood Mackenzie, Barclays. Dec 2015. Dot is an estimate for 2016.

Industrial metals prices

Price index, Jan. 2013 = 100

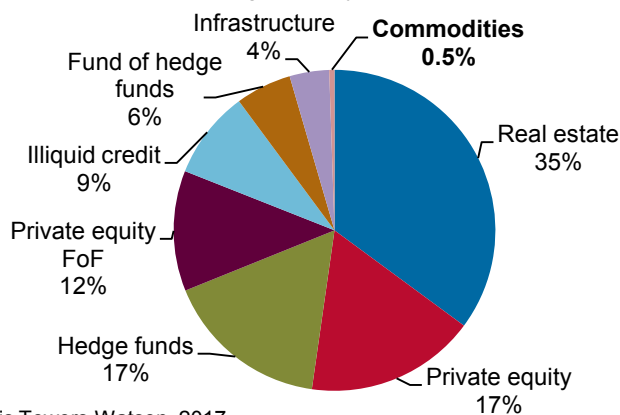


Source: Bloomberg. December 15, 2017.

Given our outlook for a continued global expansion in 2018, and since there are few signs that industrial metal capital spending is rising yet, we believe there is more upside for prices in 2018. Note below how alternative asset managers have very little exposure to commodities, which could contribute to upward price momentum if these allocations were to change.

Top 100 alternative investment managers

% of aggregate assets under management by asset class



Source: Willis Towers Watson. 2017.

SPECIAL TOPICS

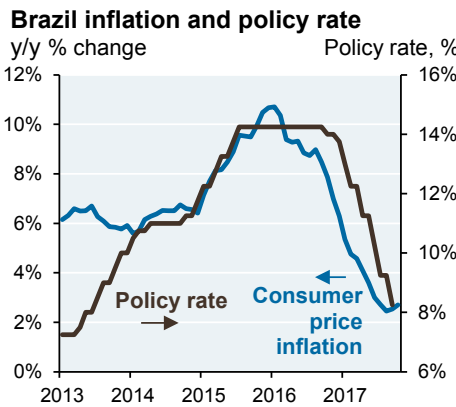
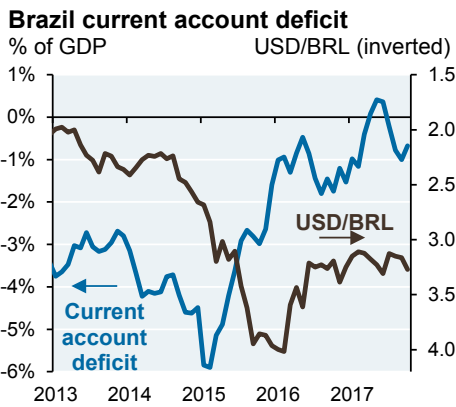
²¹ Eye on the Market, February 17, 2016

²² Eye on the Market 2017 Outlook, January 1, 2017

[ST2] Brazil: another example of improving economics trumping deteriorating politics

Is there a country with more bad press over the last 2 years than Brazil? Its political scandals seem unending, and even ESPN is piling on: *“After the Flame: The 2016 Summer Games were supposed to bring Rio and Brazil to new financial and athletic heights. What's left behind? A city and country shrouded by corruption, debt and broken promises”*. Perhaps, but Brazil is also undergoing a typical balance of payments adjustment and market recovery. The narrative, as usual, goes like this:

- The currency declines, crushing imports and boosting exports, bringing spending in line with income (signified by a closing of the current account deficit)
- Growth slows, bringing down wage and price inflation, which in turn allows the Central Bank to ease
- Credit creation, employment and foreign direct investment eventually begin to rise, and in the case of Brazil, there are additional benefits from rising industrial metals prices. FDI flows have been boosted by privatizations and asset sales by Federal and State governments, Vale, Petrobras and Eletrobras. This might help Brazil in the long run given its very low relative rankings in infrastructure, regulation, labor market efficiency and bureaucracy (source: World Economic Forum)
- As consumer and business confidence pick up, so do equity markets, in spite of **“Operation Car Wash”** and its aftermath



SPECIAL TOPICS

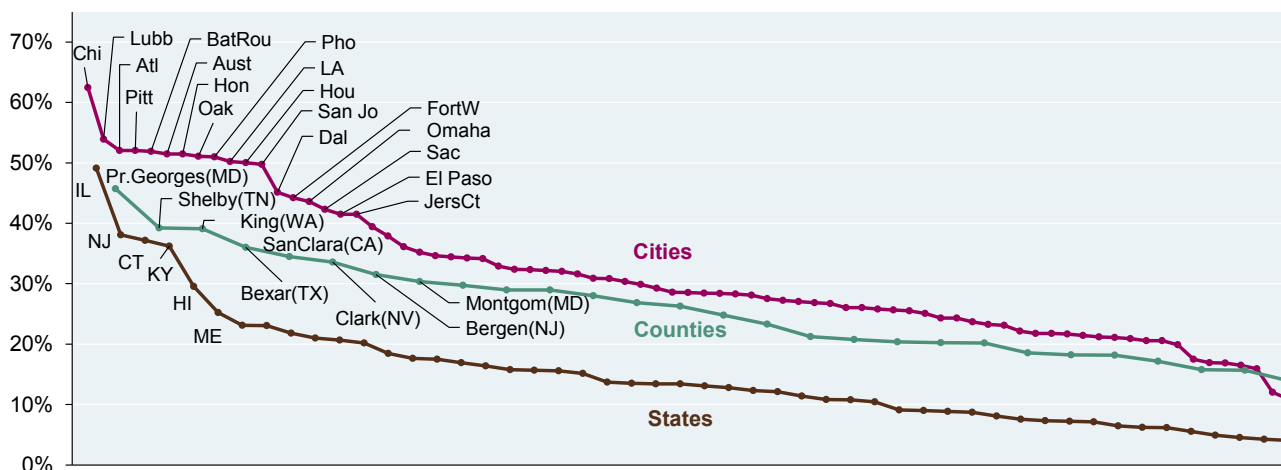
[ST3] Our latest analysis of the US municipal market: debt burdens of US cities and counties

As managers of over \$70 billion in municipal bonds, we keep very close tabs on the total debt burdens of municipal issuers, including their unfunded pension and retiree healthcare obligations. In the fall of 2017, we published a deep dive analysis of US cities and counties. As with the states, we found a very heterogeneous picture: some issuers have manageable debt burdens, while others face significant challenges. The chart below shows the results of our analysis: **the percentage of municipal revenue required to fully meet all future projected obligations, assuming a 6% return on assets.** Population and revenue growth mitigate some of these burdens, which is why we also developed a more comprehensive measure which takes these factors into account as well. Given the asymmetric risk of fixed income, we would rather be early in identifying unwanted sources of portfolio risk than be reacting too late. Across our various municipal bond portfolios, our exposure to the general obligation bonds of the highest risk cities and counties as designated in our analyses is around 1% of total assets.

To review the Executive Summary of the paper and our conclusions, [click here](#). These conclusions appear to be even more important to consider in the wake of the Tax Cuts and Jobs Act, given the pressures that high tax states may face in the form of out-migration by high income residents.

The IPOD ratio: State, City and County debt burdens

% of municipality's revenues required to pay the sum of interest on net direct debt, the municipality's share of unfunded pension and retiree healthcare liabilities, and defined contribution plan payments; assuming 6% plan return and 30 year level dollar amortization



Source: J.P. Morgan Asset Management, Center for Retirement Research at Boston College, CAFRs, Moody's. FY 2015.

SPECIAL TOPICS

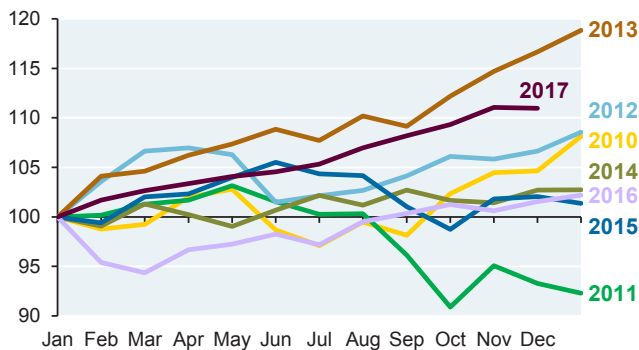
[ST4] Hedge Fund performance: modestly better, but valuation compression still a headwind

2017 was a modestly better year for hedge fund stock-pickers, certainly better than the industry’s subpar performance in 2016. There are two ways we track this. First, in the chart on the left, we look at the asset-weighted returns by month for all long-short hedge fund managers reporting to HFRI. 2017 looks better than most years since 2010, although the bar is admittedly low.

However, since only 1/3 of managers report to HFRI, other return measures are worth tracking as well. Some Prime Brokerage departments aggregate the stock-picking activity of their hedge fund clients, and create synthetic return estimates based on an assumed market-neutral portfolio. One such exercise appears in the chart on the right, and shows how 2017 was a better year for stock-pickers even with the sharp drop in performance due to December profit-taking in tech and other growth sectors. How this translates into actual hedge fund returns is complicated given dispersion of returns across funds, leverage, cash holdings, etc., but this approach gives us a sense for whether stock-picking is yielding positive results or not.

HFRI long/short performance

YTD returns, asset weighted, Index = Jan 1



Source: HFRI. November 2017.

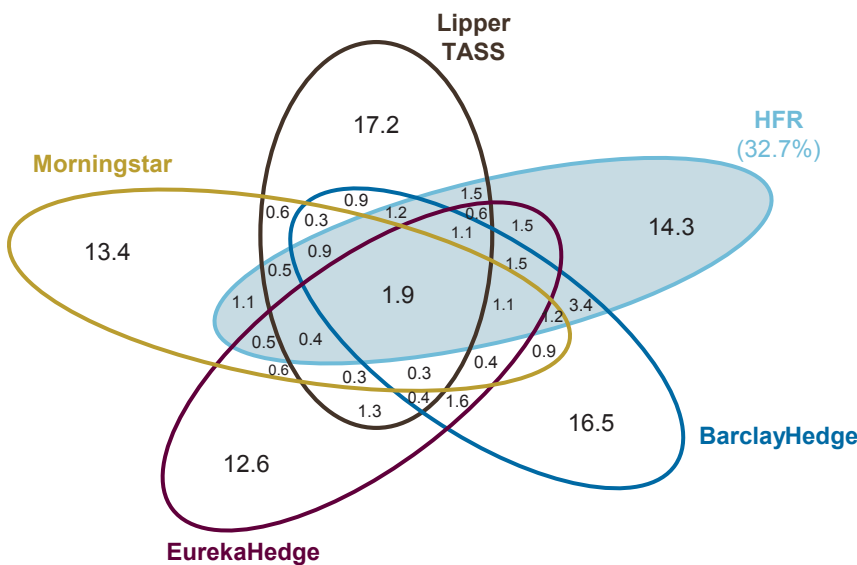
Prime Brokerage-based assessment of HF stock picking

YTD alpha (long appreciation-short appreciation), asset weighted



Source: Morgan Stanley. December 5, 2017.

Starfish chart: coverage overlap of hedge fund performance databases



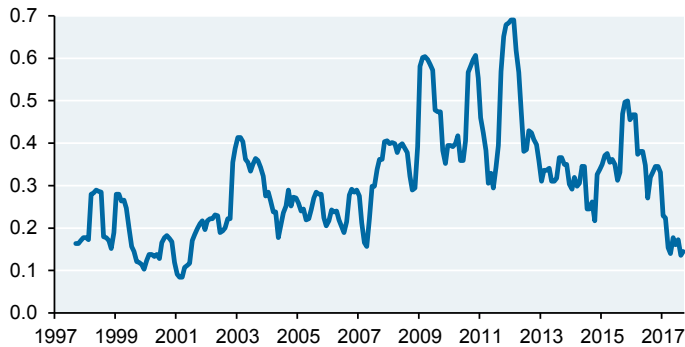
The sum of all the shaded HFR segments is 32% (i.e., HFR does not track performance for ~70% of all hedge funds). This is not unique to HFR; the 5 providers shown cover from 25%-35% of all managers

Source: "Hedge Fund Performance: What Do We Know?" Joenväärä, Kosowski, Tolonen. March 2016.

What helped stock-pickers in 2017? The correlation among stocks has finally fallen, meaning that the stocks are no longer behaving like a giant flock of geese flying in the same direction at once. Hedge fund manager preferences for growth-oriented sectors (tech and healthcare) helped as well.

S&P 500 and its average stock correlations

Avg. pair correlations using 100 daily rate of change data

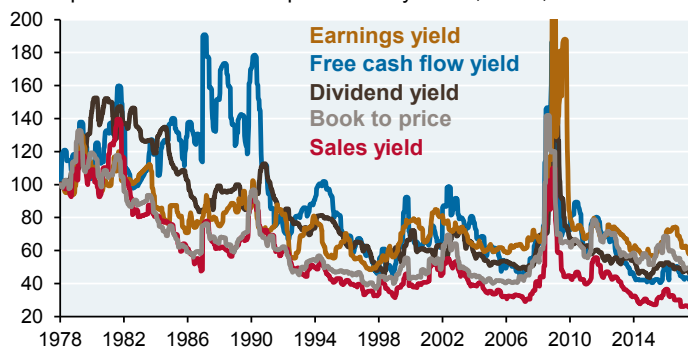


Source: Gavekal. September 2017.

However, one big challenge remains for hedge funds: compression of valuations²³. While the *correlation* among stocks has declined, the dispersion of *valuations* across stocks is still quite low, so that the amount of return that can be earned by identifying cheap stocks vs expensive ones is still constrained compared to history. We view this as another distortion resulting from trillions of dollars in central bank stimulus, which have compressed valuations in equity, corporate, municipal and real estate markets. It might take until 2020 or later for the lingering impact of central bank intervention to disappear from financial markets.

Valuation dispersions across stocks: lowest on record

90th percentile minus 10th percentile by factor, Index, 100 = Jan '78



Source: ClariFi, Morgan Stanley Research, JPMAM. August 2017.

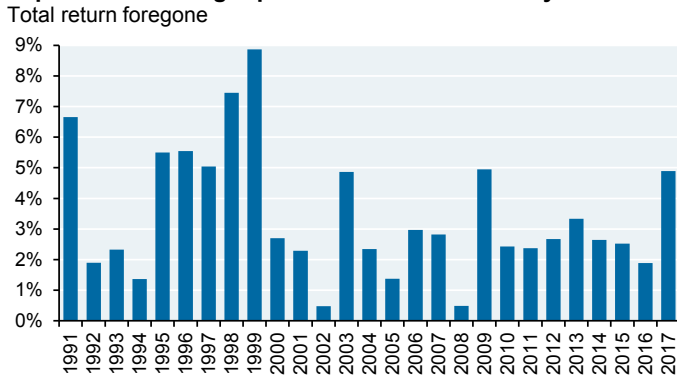
SPECIAL TOPICS

²³ For each of the five series, stocks with low valuations (90th percentile of cheapness) are compared to stocks with high valuations (10th percentile of cheapness). The difference is indexed to 100 in 1978. The gap between cheap and expensive stocks has narrowed by 50%-75% since the 1980's, and is close to the narrowest on record.

[ST5] The concentration of US equity market returns in 2017

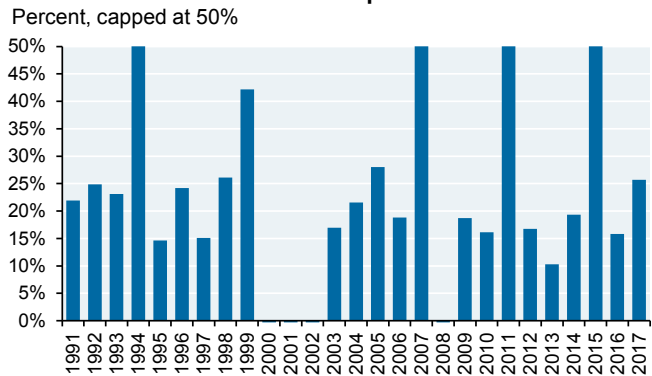
In 2017, S&P 500 returns were concentrated in a few stocks: the top 5 stocks contributed 5.0% of the index's total return of 21.9%²⁴. FAAMG²⁵ sales growth hit 21% y/y in Q3 2017, supporting their price advances. How abnormal is it for a small group of stocks to represent such a large portion of the overall market return? From 1991-2016, the average return contribution of the top 5 stocks in the S&P 500 was 3.4%, with a median of 2.6%. So in that regard, 2017 was higher than usual. Regarding the contribution *share* of market returns, the top 5 stocks contributed around 25%, which is roughly average for a year of positive returns.

Impact of removing top 5 S&P 500 stocks each year



Source: Bloomberg, JPMAM. November 2017. 2017 numbers are YTD.

Share of market returns from top 5 stocks



Source: Bloomberg, JPMAM. November 2017. 2017 numbers are YTD.

In 2017, all 5 of the FAAMG stocks are making repeat appearances in the top 5 stock list. It's not unusual for companies to repeat in multiple years. Microsoft's 13 appearances are the second most of any company (behind GE), and 2017 marks its 5th straight appearance. Apple, the largest return contributor in 2017, has appeared 9 times, all from 2005-2017. As a result, 2017 seems normal in this regard, as it's common for the top 5 stocks to repeat from year to year. From 1991-2017, more companies (26) have repeated as a top 5 contributor than have shown up only once (20).

Top S&P 500 Contributors in 2017			
Rank	Company	Contribution	Years in top 5 (1991-2017)
1	APPLE INC	1.62%	2005, 2007, 2009, 2010, 2011, 2012, 2014, 2016, 2017
2	MICROSOFT CORP	1.04%	1996, 1997, 1998, 1999, 2001, 2006, 2007, 2009, 2013, 2014, 2015, 2016, 2017
3	AMAZON.COM INC	1.02%	2015, 2017
4	FACEBOOK INC-A	0.76%	2014, 2017
5	ALPHABET INC-C	0.50%	2015, 2017

Source: Bloomberg, JPMAM. December 15, 2017.

SPECIAL TOPICS

²⁴ We calculate contribution to an index return as the stock's weight in the index at the beginning of the year times its total return over the calendar year. Returns are as of December 15, 2017.

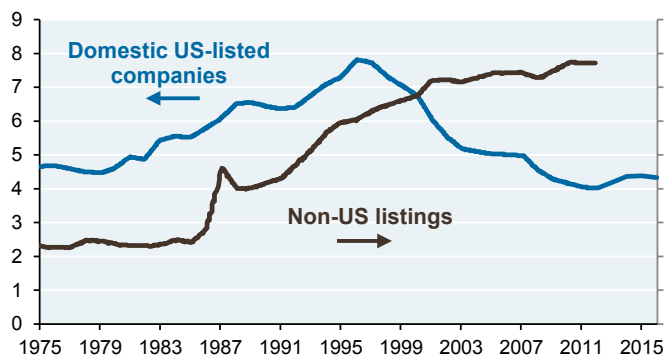
²⁵ Facebook, Apple, Amazon, Microsoft, Google

**[ST6] What should be done about the shrinking number of US public companies?**

The US has a “listing gap”: while the number of publicly listed firms is rising in the rest of the world, in the US, it’s shrinking. The declining number of US public companies is remarkable, and in our view, troublesome. Why is this happening? As shown in the chart on the right, the decline is due to both increased de-listings and fewer new listings. More on each topic below.

The growing listing gap between the US and the world

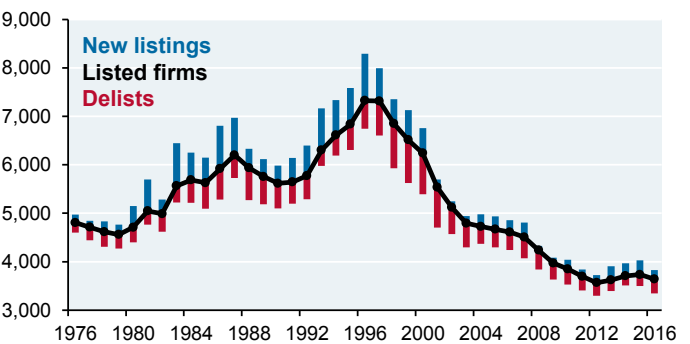
Thousands



Source: World Bank, World Federation of Exchanges. 2015.

Additions and subtractions to listed companies

Number of listed firms



Source: "The U.S. Listing Gap," Journal of Financial Economics, Dojige, Karolyi and Stulz, Credit Suisse. 2017.

De-listings are usually the result of M&A activity or business failure. Regarding M&A, there are signs that US businesses are getting larger and more consolidated. The average US company has a market cap of \$7 billion, 10x higher in real terms than in 1976. Another stat: the Herfindahl index, which measures industry concentration by market share, increased by 45% from 1995 to 2015. Some studies attribute these trends to more lax enforcement of antitrust laws, while others attribute them to the economies of scale accruing to large companies in a global marketplace. Either way, the annual pace of de-listings has kept pretty constant at 8%-10% of listed firms since 2002.

On the **decline in new listings**, there are two primary reasons²⁶:

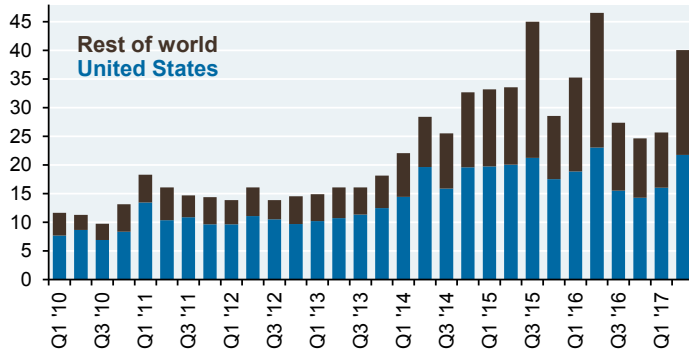
- *Increased regulatory cost and complexity of being public, including litigation risks.* In a PwC survey, 45% of firms indicated that the cost of being public exceeded their expectations. US companies spend 166% more on legal services per dollar of revenue compared to global counterparts.
- *Deregulation of private capital*, effectively making it easier for private companies to remain private:
 - “Accredited investors” are those allowed to invest in securities not registered with the SEC, such as hedge funds, private equity and venture capital. In 1982, Regulation D Rule 501 defined an accredited investor as an individual with income of >\$200K, or with net worth of > \$1mm. These dollar values **have not been updated to account for inflation since 1982**²⁷
 - In 2016, Congress expanded the definition of an accredited investor to include registered brokers, investment advisors and individuals with sufficient knowledge of unregistered securities
 - In 2012, the JOBS Act repealed the prohibition on general solicitations under Regulation D, allowing private placements to be advertised publicly; created a federal exemption to allow crowdfunding; increased the number of shareholders a private company can have before having to register/publicly report from 500 to 2,000; and provided a “Regulation A+” exemption to allow small companies to offer and sell up to \$50 mm of securities in a one-year period, subject to eligibility, disclosure and reporting requirements

²⁶ Other reasons for falling new listings include lower capital needs of technology and social media companies with high sales per employee, and tight high grade/high yield spreads, prompting companies to finance the marginal dollar with debt rather than equity.

²⁷ The 1982 rule, if applied in current dollars, would raise the accredited investor minimum to \$2.5 mm from \$1mm.

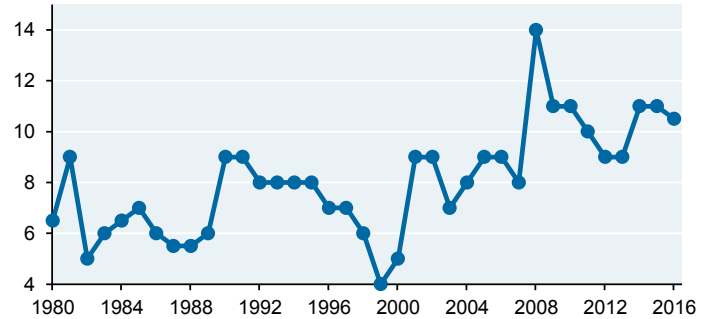
The consequences of **private capital deregulation**: a sharp increase in US venture capital investment, and longer periods of time before tech companies go public. In 2006, VC investors funded 2,888 private US companies; in 2015, they funded 4,244 companies. As of November 2017, there's still \$1 trillion in unspent private equity and VC funds available for investment in private companies.

Global venture capital investment by quarter
Billions, US\$



Source: KPMG, PitchBook. 2017.

Waiting longer to go public
Median age of technology companies at IPO, years

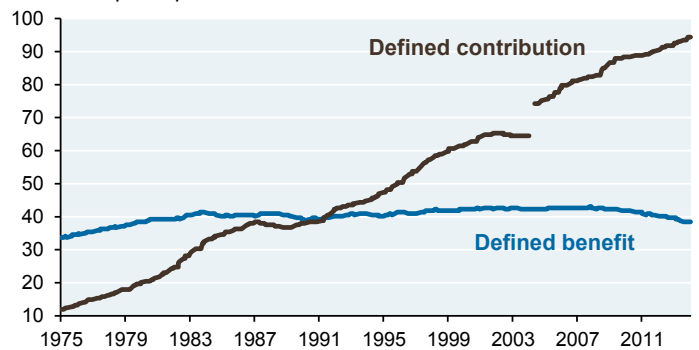


Source: "Initial Public Offerings: Median Age of IPOs Through 2016," Jay Ritter, University of Florida. 2017.

Before considering what might be done, **why does it matter?** In our view, there are two problems with US capital markets having a smaller and smaller number of public companies:

- *Fairness to the average investor.* The status quo deprives many investors of the gains accruing to pre-IPO investments, since most rely extensively on defined contribution plans to finance retirement. DC plans are becoming more prevalent as DB plans stagnate, and I don't think the right answer is to allow risky and less liquid alternative investments into DC plans. Wealth creation that is no longer accessible to large numbers of investors, combined with instances of poor post-IPO performance, furthers the notion of a class divide and a "rigged" system that works against the average investor

Number of participants in pension plans
Million of participants



Source: Department of Labor. 2014.

- *Less market knowledge for the investing public, and free-riding by private companies.* Disclosures from public companies benefit the investing public, and allow analysts to conduct more informed research. As such, fewer public companies means less information for investors. There are also substantial strategic benefits accruing to private companies that "free-ride" on information provided by public companies. How valuable is this information? It's hard to quantify, but we do know this: expert information networks like GLG can cost up to \$1,000 per hour. As a result, fewer public companies tilts the disclosure burden even further upon ones that remain. In a 2017 paper, Duke Law Professor Elisabeth de Fontenay argues that the current equilibrium is unsustainable²⁸: "While public companies are being compelled to disclose ever more information, they are losing their very reason for doing so", given the ease of raising capital in private markets, the explicit costs of being public and the less visible but real costs of free-riding by private competitors

²⁸ "Deregulation of Private Capital and the Decline of the Public Company," de Fontenay (Duke Law). March 2017.

What could arrest the decline in the number of US public companies? Some don't see it as a problem, since much of the decline relates to fewer micro-cap stocks rather than large or mid cap stocks. Still, I like the ideas outlined below, which would level the playing field between the costs and benefits of being public vs private.

Objective	Policy change
Allow public companies to focus more on their core business by ensuring that proxy voting proposals have meaningful shareholder backing	<ul style="list-style-type: none"> • Modernize and update the requirements for submitting a shareholder proposal (including minimum ownership amount and holding period) and eliminate repetitive, unsuccessful proposals that are not relevant to companies' long-term economic value²⁹ • Adopt the "Choice Act", which would increase shareholder support thresholds required before proxy proposals can be introduced if they have already been rejected
Reduce the regulatory burden of being public	<ul style="list-style-type: none"> • Raise the "Emerging Growth Company" (EGC) designation set by the 2012 JOBS Act from \$1.1 bn in annual revenues to \$5.0 bn; below the EGC threshold, companies are exempt from certain reporting and disclosure requirements • Remove the automatic expiration of EGC status which occurs 5 years after IPO • Allow EGCs to report less frequently (i.e. semi-annually rather than quarterly)
Minimize tax treatment difference between public and private companies	<ul style="list-style-type: none"> • Take steps to minimize the incentive to remain private (in the form of a pass-through entity only subject to one layer of tax) rather than going public (which typically results in two layers of tax, with the exceptions of REITs, MLPs, and other publicly traded pass-through vehicles)³⁰
Enhance protections against spurious shareholder litigation ³¹	<ul style="list-style-type: none"> • Require disclosure of third party financing; sanction attorneys deemed to bring frivolous lawsuits; limit plaintiff fees; require loser to pay legal fees of the winner (i.e., English system)
Ensure adequate protections for smaller and less sophisticated investors	<ul style="list-style-type: none"> • Index accredited investor minimums to inflation so that the accredited investor universe does not continue to expand beyond its intended purpose; consider raising accredited investor limits to the inflation-adjusted levels implied by the original rule
Reduce pressure on public companies to meet short term earnings targets in order to satisfy short term holders of their stock	<ul style="list-style-type: none"> • Extend the short term capital gains window from 1 year to 3 years
Improve the liquidity of small and medium sized companies	<ul style="list-style-type: none"> • Allow smaller companies to concentrate their trading activity on a single exchange, rather than being spread over multiple exchanges at the expense of liquidity (i.e., exempt them from Unlisted Trading Privilege obligations)

²⁹ In 2016, according to the annual proxy monitor from The Manhattan Institute, **6 investors and their families sponsored one third of all shareholder proxy proposals.**

³⁰ The Tax Cuts and Jobs Act helped narrow the gap: tax rates for C-corporations declined from 35% to 21%, while pass-through entities benefit from a deduction reducing top marginal rates from 37% to around 30%.

³¹ In 2016, there was a record number of securities class action suits, and a record number of dismissals. The mere filing of a securities class action has been estimated to wipe out ~3.5% of the equity value of a company.

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Acronyms

BoE: Bank of England

BoJ: Bank of Japan

CPI: Consumer Price Index

EBIT: earnings before interest and taxes

EBITDA: earnings before interest, taxes, depreciation and amortization

ECB: European Central Bank

ECI: Employment Cost Index

EM: emerging markets

ELMI: emerging local markets index

EMBI: emerging markets bond index

FDI: foreign direct investment

FOMC: Federal Open Market Committee

GBI: global bond index

GBP: Pound Sterling

IFO: IFO Institute

IFRS: International Financial Reporting Standards

IMF: International Monetary Fund

JGB: Japanese Government Bond

M&A: mergers and acquisitions

NAFTA: North American Free Trade Agreement

NFIB: National Federation of Independent Business

OECD: Organization for Economic Co-operation and Development

P&C: property and casualty

P/E: price-to-earnings

PMI: Purchasing Managers' Index

REER: real effective exchange rate

WTO: World Trade Organization

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