Foundations of the global recovery; the Tax Bill; NYC vs SF; the disintegrating foundations of Puerto Rico's solvency; and the anachronism of the 5% rule affecting US foundations

The global recovery is in full swing. Germany's IFO survey and Japan's Tankan survey are at their highest levels since 1991, the US is finally growing at ~3% with contributions from manufacturing and services, emerging economies are generally in expansion mode as exports rise, developed world unemployment rates are at a 40-year low, etc. Developed world equities are up 20% this year, 75% of which is based on earnings growth and the rest based on multiple expansion. The surprise isn't the recovery itself, but that it took 9 years and $11 trillion in central bank intervention to get here.

As shown in the third chart, G4 central banks are *expected* to leave the party slowly and not rock the boat by withdrawing liquidity too quickly. However, the actual pace will depend on inflation, and there are signs that pressures affecting wage inflation and producer prices in the US are slowly intensifying, with Europe to follow. This is the biggest risk to the duration of the recovery, and will be the main theme of our 2018 Outlook which comes out on Jan 1st. All things considered, it feels like 2018 will be the last year in the cycle with rising growth, rising profits and relatively accommodative central banks.

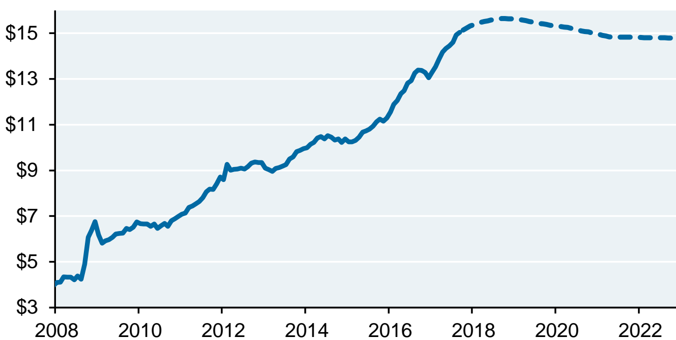
Global economic expansion picks up steam
% of countries with PMI leading indicator in expansion mode

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

Global capital spending ex-China
y/y % change

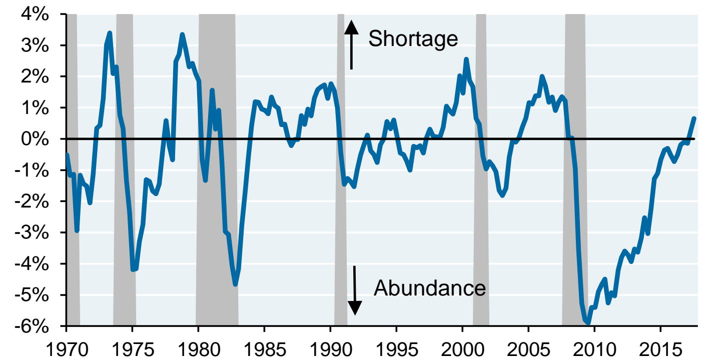
Source: J.P. Morgan. Q3-Q4 2017 are estimates.

G4 central bank balance sheets expected to unwind slowly, Fed/ECB/BoE/BoJ balance sheets, $US trillions



Source: National central banks, JP Morgan. October 2017.

US "output gap" (a proxy for excess capacity) is shrinking, %



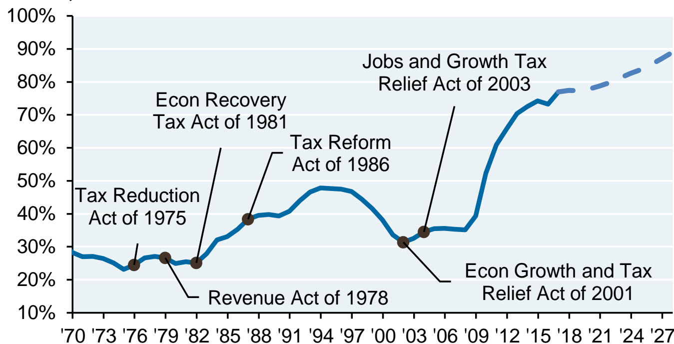
Source: J.P. Morgan. September 2017. Grey bars indicate US recession.

Investment products: Not FDIC insured • No bank guarantee • May lose value

The House tax plan could increase S&P 500 earnings per share by 10%-12%[1], but we're going to defer a deeper dive until the House and Senate come to a compromise. There are many issues to reconcile: deductibility of corporate interest, limits on state/local tax and mortgage interest deductions, taxation of accumulated/ongoing offshore profits, pass-through taxation, incentives for electric cars, etc. There's also a chance that fiscal conservatives object to the (cynical) strategy of having rules sunset in 5 years to meet deficit constraints, with the expectation that Congress will simply extend them. As the House plan now stands, it would reduce the US marginal *effective* corporate tax rate from **34.6% to 22.6%**, which would put it more in line with G7 and OECD averages of 26.2% and 17.3%[2]. I wouldn't be surprised if the ultimate agreement results in a 25%-27% statutory rate instead of 20%. Bottom line: **domestically focused companies with higher effective tax rates and less leverage would benefit most from the House draft.**

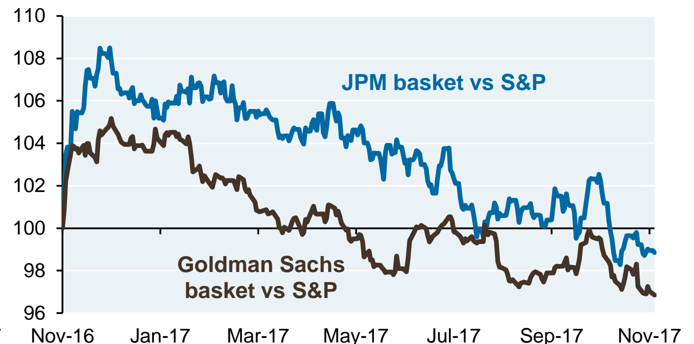
The need for revenue offsets is what makes this tax bill different than prior tax cuts, which took place when Federal debt levels were lower (1st chart). This one will need to be paid for, at least in part, through revenue offsets. At first glance, market expectations for the bill appear low. As shown in the 2nd chart, while the largest beneficiaries of tax reform outperformed the market right after the election, they are now roughly flat to the market. However, there may be other factors affecting this kind of simplified approach, and our sense is that a complete failure to pass a tax bill with any corporate tax provisions would result in a 4%-5% market selloff. Timing is probably Q1 2018 or Q2 at the latest.

Prior tax cuts coincided with much lower levels of debt, Federal debt as a % of GDP



Source: Congressional Budget Office, U.S. Treasury. 2016.

Outperformance of tax beneficiaries has disappeared
Outperformance of tax cut beneficiaries vs S&P, 11/8/2016 = 100



Source: J.P. Morgan Equity Strategy, GS, Bloomberg. November 6, 2017.

[1] **10%-12% increase in S&P EPS from House Tax Plan**. This estimate is based on a 20% corporate tax rate, limits on expense deductibility, repatriation taxes on foreign earnings, buybacks resulting from repatriation and immediate expensing of capital expenditures. Only the most highly leveraged companies (net interest expense > 50% of EBITDA) look to be worse off under the House plan. Leverage this high is unusual for large cap companies (of $3.75 trillion in S&P debt, only $100 billion looks to be non-deductible), and a bit more prevalent in small and mid cap. See "*Assessing the Impact of the Proposed House Tax Plan*", JP Morgan Equity Strategy, 11/8/2017.

[2] **Marginal effective corporate tax rates** differ from statutory rates in that they incorporate all federal and subnational income, sales and asset taxes, depreciation rules and other tax preferences, and are the preferred method for comparing corporate tax burdens across countries. Source: "*Tax Policy Trends*", University of Calgary School of Public Policy, Jack Mintz (Director), October 12, 2017.

On the **new Fed chair**, Trump's selection of Powell appears to be based less on differences in monetary policy and more on differences in regulatory policy. Powell has expressed willingness to simplify the Fed's bank adequacy reviews through which banks set capital adequacy targets; to relax Volcker and Supplementary Leverage rules in order to improve bank market-making activities; and to reduce regulation of non-systemic community banks.

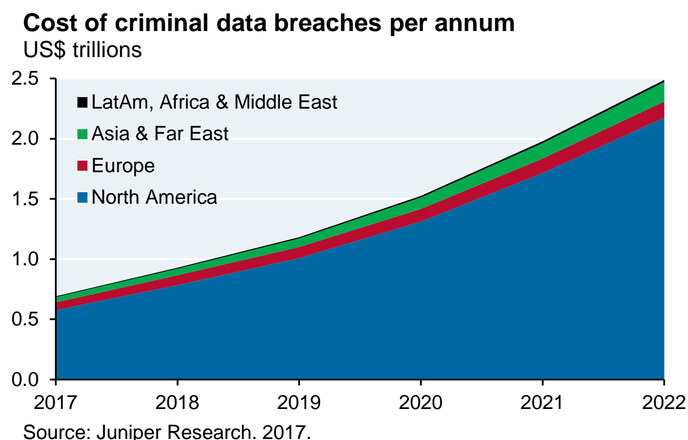
Another example of polarization: New York vs San Francisco

I asked the following question in New York and San Francisco to 50 institutional clients in each location: "The FBI had a court order from a Federal judge that required Apple to decrypt an iPhone to assist the government in investigating the San Bernardino shooting. This court order was in compliance with the *All Writs Act*, which was reconfirmed by the Supreme Court in the 1970's as a means of requiring private companies to cooperate when the government can show adequate cause. Do you believe that the FBI was in the right by requiring Apple to decrypt its phone?"

New York: Yes 47, No 3

San Francisco: Yes 2, No 48

This question is relevant to the discussion of what should be done about increasing cybercrime tied to virtual currencies, a topic we wrote about **last month**, and was mentioned by the CEO of Symantec at a JP Morgan CEO conference last week in California. Juniper Research projects the global cost of criminal data breaches at over $1 trillion by 2020.



Source: Juniper Research. 2017.

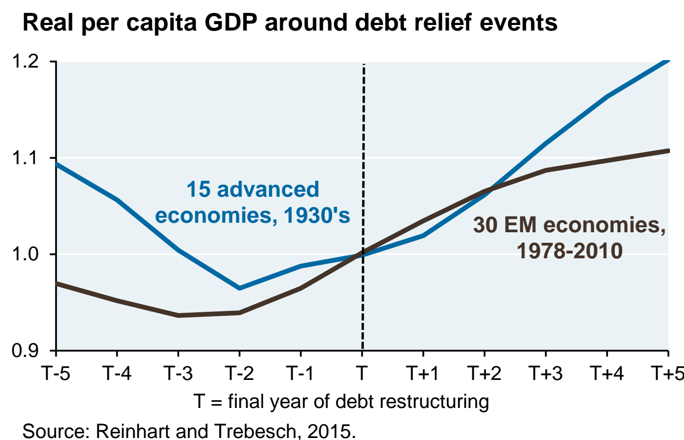
Time Capsule: Puerto Rico and recognition of the inevitable

In the late 1980's/early 1990's, I worked at JP Morgan on sovereign debt restructurings and met my future spouse who ran JP Morgan's Latin American Capital Markets group. She was the best person to ever run that group and was much more senior than I was[3], but that's not the point of this story.

In the 1980's, US banks lent dollar after dollar to EM countries, hoping they could borrow their way out. Eventually reality set in, and JP Morgan wrote off large amounts of EM debt. Other bank chairmen were not happy about this, since they didn't have enough capital to write off their debt as well. But what JP Morgan and other banks set in motion culminated in substantial debt forgiveness ranging from 40% to 80%. Argentina then defaulted again and Venezuela is doing its best to become Zimbabwe[4], but overall, 1990's debt restructurings set many Latin, Asian and Eastern European countries on a more sustainable path which benefitted their citizens, trade counterparties and future creditors (1st chart below).

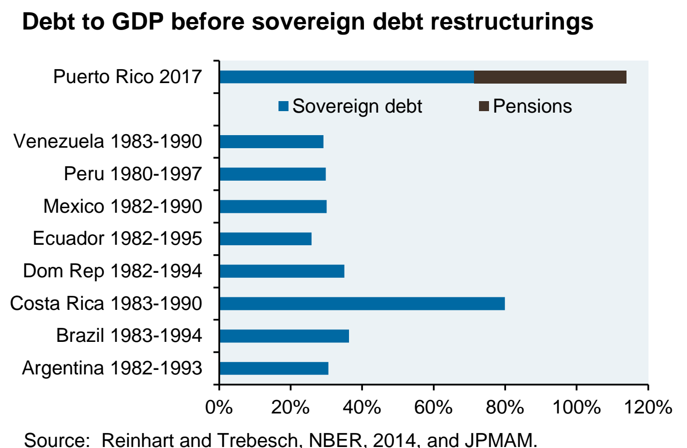
Here's the point: **in my view, Puerto Rico's fundamentals are considerably worse than most of the restructuring countries from the 1990's.** This view is based on debt, national income, exports, population growth, etc., and pre-dates Hurricane Maria[5]. Opinions can differ, and others in the industry have had a different view. I wrote about Puerto Rico's rapidly deteriorating fundamentals in 2014 at the time of its bond issue, so nothing new here. Using prior restructuring episodes as a guide (i.e., how large the debt was and how it affected the amount of debt forgiveness), Puerto Rico recovery rates would be 25 to 40 cents on the dollar for general obligation debt if we ignore its underfunded pension system. If we take Puerto Rico's pension system into account, which has a funding ratio of less than 10%, recovery rates would be even lower.

Real per capita GDP around debt relief events



Source: Reinhart and Trebesch, 2015.

Debt to GDP before sovereign debt restructurings



Source: Reinhart and Trebesch, NBER, 2014, and JPMAM.

[3] In 1998 when she hosted a **dinner** for other Managing Directors at our home, since I was still a Vice President, she arranged for me to spend the evening having dinner at a local restaurant with her mother instead.

[4] In the 2017 World Economic Forum Competitiveness Report, **Venezuela actually ranks *below* Zimbabwe**.

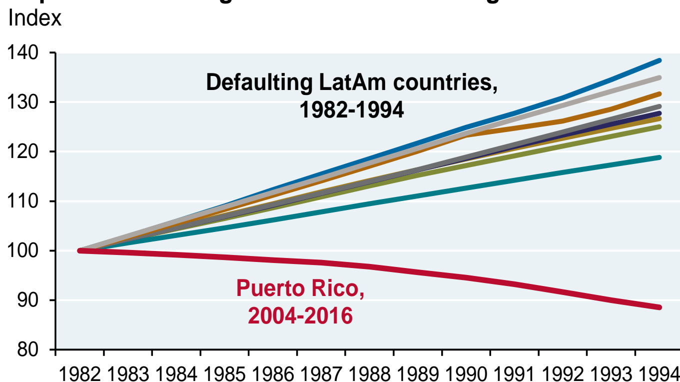
[5] **On Puerto Rico's calamitous financial condition after the hurricane**, see "*Puerto Rico after Maria: Initial Thoughts on the Fiscal and Economic Implications*", Brad Setser, Council on Foreign Relations, Sept 2017. To prevent US aid from being used to pay bondholders, the government of Puerto Rico obtained a motion from a US District Court judge that FEMA funds will only be used for intended purposes and not be subject to creditor claims.

At a conference at Harvard's Kennedy School last month, I presented the results of our **study** on the credit risk of US states, cities and counties. There was also a lot of discussion on Puerto Rico. Some hedge funds have hired law firms to challenge the make-up and legality of the Promesa oversight board[6], but I think they are tilting at windmills here, and I also disagree with many of their arguments on the consequences of sovereign default. Markets have short memories: just 5 years after Russia's debt restructuring, Russian gov't spreads narrowed from 6% to 2% and its companies issued $38 billion in new external debt. More generally, **most defaulters regain access to new credit within one or two years after a crisis**[7].

Members of the Trump administration have mentioned the following quid-pro-quo to me: **no more picking winners and losers, and no more investor/corporate/bank bailouts, in exchange for less regulation on the private sector**. Well, if that's the case, Puerto Rico may be one place to start.

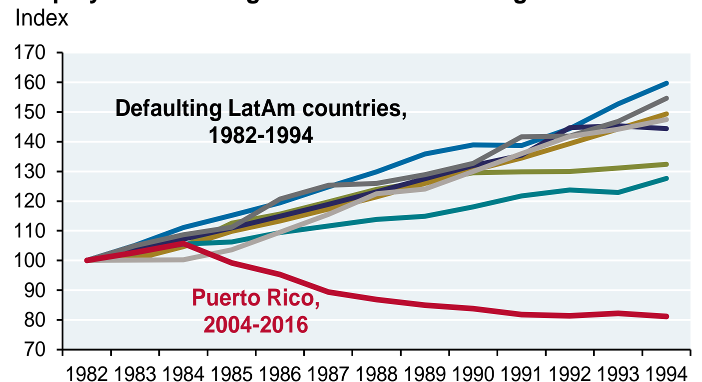
Michael Cembalest
JP Morgan Asset Management

Population heading into debt restructuring events



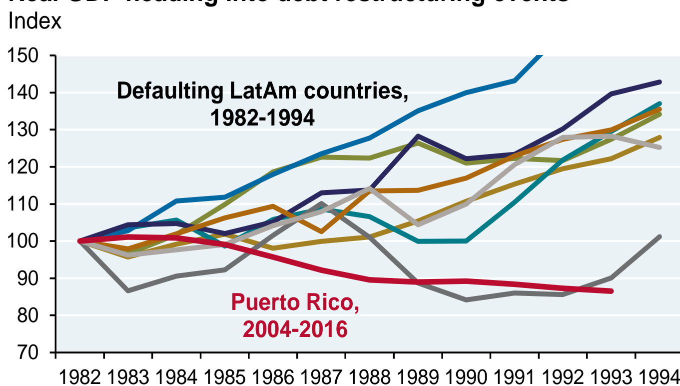
Sources: Conference Board, CFR, JPMAM. 2016.

Employment heading into debt restructuring events



Sources: Conference Board, CFR, JPMAM. 2016.

Real GDP heading into debt restructuring events



Sources: Conference Board, CFR, JPMAM. 2016.

[6] "*Hedge Fund Sues to Have Puerto Rico's Bankruptcy Case Thrown Out*" (NYT, August 7, 2017) cites the legal actions of Gibson Dunn to challenge **Promesa** on behalf of Aurelius Capital.

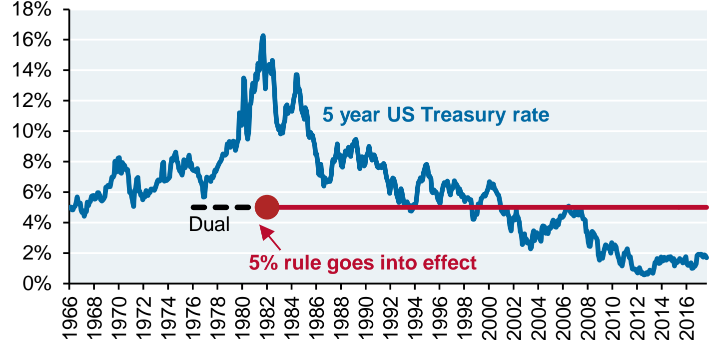
[7] "*Sovereign Borrowing by Developing Countries*", Gelos, Sandleris and Satay, Journal of Int'l Economics, 2011, and "*Development of Capital Markets and Institutional Investors in Russia*", World Bank, 2006.

Special Topic: The anachronism of the 5% minimum distribution rule for US foundations

The IRS rule requiring foundations to annually distribute at least 5% of assets is an historical anachronism given the decline in inflation and interest rates since its adoption in 1982, and given the wide range of other tax rules that adjust with market and economic conditions. Possible adverse effects include excessive risk-taking by $900 billion in US foundations, which is not in the best long-term interests of their grant recipients or the foundations themselves.

Background: in 1969, Congress passed an Act which created minimum distribution requirements for US foundations. A key aspect of the 1969 rule: minimum distributions were tied to market conditions (referred to as "money rates and investment yields"). However, a subsequent 1976 Act redefined minimum foundation distributions as being the greater of 5% and adjusted net income. Then, at the peak of Treasury yields in 1982, **Congress fixed the minimum foundation distribution rate at 5%**. For the next 20 years, this rate achieved its purpose: require foundations to make meaningful distributions to recipients while at the same time allowing them to employ lower-risk investment strategies. Lower portfolio risk allows foundations to make longer term and larger commitments, and tackle complex generational issues related to health, education, housing and welfare.

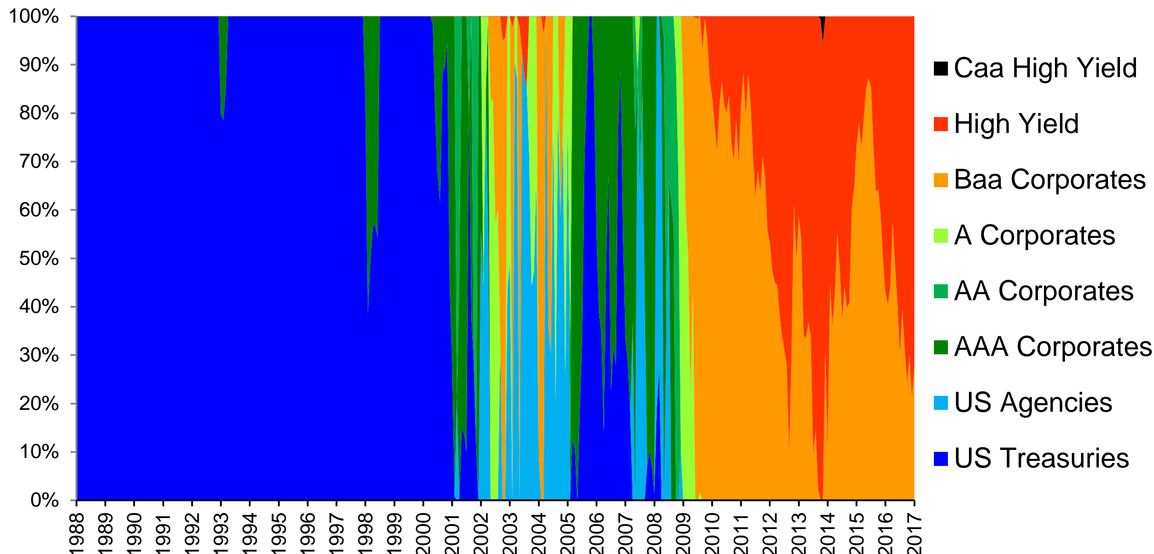
When the 5% rule was originally put into effect, it was way below Treasury rates, but times have changed



Source: Bloomberg, IRS. September 2017.

The problem: since the year 2000, the 5% level has been above Treasury and Agency rates, prompting many foundations to take more risk to meet minimum distributions. The chart below shows portfolio blends comprised solely of fixed income that foundations would have needed to meet a 5% payout. While most foundations are more diversified in accordance with prudent investor statutes, this stylized example helps illustrate the challenge. From 1982 to 2001, a Treasury-Agency-AAA corporate blend would have sufficed. But in the early 2000's, Baa-rated corporate bonds were required for the first time as rates fell. Since 2009, **the required blend was entirely comprised of Baa corporate bonds and High Yield bonds**. For a brief moment in 2014, the required portfolio was actually comprised entirely of High Yield bonds, including a required allocation to CCC-rated securities for additional yield.

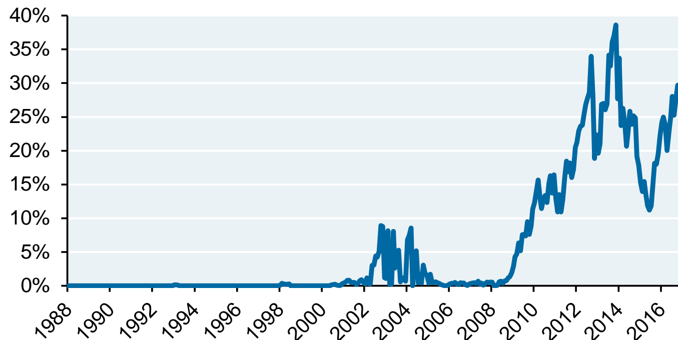
Fixed income portfolio required to meet 5% required minimum distribution
percentage of portfolio



Sources: Bloomberg, Barclays, JPMAM. September 2017.

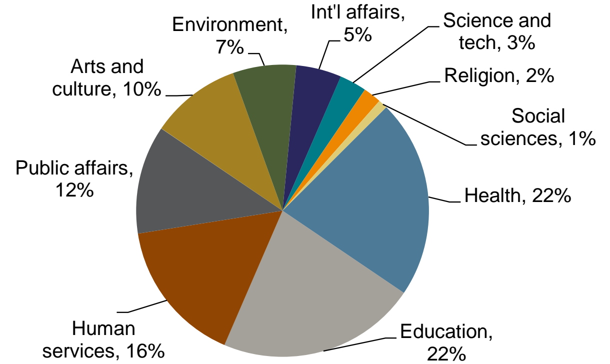
How risky are portfolios comprised primarily of Baa-rated corporate bonds and High Yield? Using data from S&P and Moody's on the history of corporate defaults, we created a risk measure that corresponds to the stylized required portfolio shown on the prior page. Result: roughly 25%-35% of the bonds in the current required foundation portfolio could default if historical patterns were to repeat. **This level of portfolio risk, if prompted by the need to meet the 5% distribution minimum, is arguably inconsistent with the long-term grant-making focus of $900 billion in US foundations**, which concentrate their grants in health, education and human services.

Required fixed income portfolio default risk
Portfolio weights times historical cumulative default rates



Source: Barclays, Bloomberg, S&P, Moody's, JPMAM. September 2017.

Primary uses of foundation grants
% of total



Source: Foundation Center. 2014.

The odd part about Section 4942 requiring 5% minimum foundation distributions: it is an anachronism when compared to the wide range of tax rules that adjust based on changing market rates and economic conditions. The table contains a partial list of such rules, along with their corresponding Code Sections. In the long term interest of the health of US foundations and their grant recipients, Internal Revenue Code Section 4942 should get another look, particularly in an era of Federal Reserve intervention in interest rate markets. For example, a dynamic rate for foundation distributions could be linked to annual Applicable Federal Rates used elsewhere as a proxy for the cost of money.

Tax rule	Adjusted for	Section
Golden parachute valuations	Market rates	Section 280G
Limitation on use of old target tax benefits	Market rates	Section 382
Interest on accrued rents	Market rates	Section 467
Computation of certain debt-financed income	Market rates	Section 514
Deductibility of insurance company reserves	Market rates	Sections 807, 811 and 812
Recharacterization of gain from straddles	Market rates	Section 1258
Original issue discount on fixed income obligations	Market rates	Section 1273
Modification of property loans	Market rates	Section 1274
Transfer tax discount rate for valuing annuities	Market rates	Section 7520
Loans with below-market interest rates	Market rates	Section 7872
Marginal income tax brackets	Inflation	Section 1
AMT brackets, exemptions & exemption phase-out thresholds	Inflation	Section 55
Itemized deductions (Pease) limitation thresholds	Inflation	Section 68
IRA contribution limit	Inflation	Section 219
Minimum deductible for Health Savings Accounts	Inflation	Section 223
401(k) employee elective deferral limit	Inflation	Section 402, Section 415
Lifetime gift & estate tax exclusion amount	Inflation	Section 2010
Gift tax annual exclusion amount	Inflation	Section 2503
Social Security maximum taxable earnings	Inflation	Section 3121

Source: Internal Revenue Service. 2017.

IMPORTANT INFORMATION

Purpose of This Material: This material is for information purposes only. The views, opinions, estimates and strategies expressed herein constitutes Michael Cembalest's judgment based on current market conditions and are subject to change without notice, and may differ from those expressed by other areas of J.P. Morgan. This information in no way constitutes J.P. Morgan Research and should not be treated as such.

Non-Reliance: We believe the information contained in this material to be reliable and have sought to take reasonable care in its preparation; however, we do not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. We do not make any representation or warranty with regard to any computations, graphs, tables, diagrams or commentary in this material which are provided for illustration/reference purposes only. We assume no duty to update any information in this material in the event that such information changes. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward looking statements should not be considered as guarantees or predictions of future events. Investors may get back less than they invested, and past performance is not a reliable indicator of future results.

Risks, Considerations and Additional information: There may be different or additional factors which are not reflected in this material, but which may impact on a client's portfolio or investment decision. The information contained in this material is intended as general market commentary and should not be relied upon in isolation for the purpose of making an investment decision. Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document is intended to constitute a representation that any investment strategy or product is suitable for you. You should consider carefully whether any products and strategies discussed are suitable for your needs, and to obtain additional information prior to making an investment decision. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

Contact your J.P. Morgan representative for additional information concerning your personal investment goals. You should be aware of the general and specific risks relevant to the matters discussed in the material. You will independently, without any reliance on J.P. Morgan, make your own judgment and decision with respect to any investment referenced in this material.

J.P. Morgan may hold a position for itself or our other clients which may not be consistent with the information, opinions, estimates, investment strategies or views expressed in this document. JPMorgan Chase & Co. or its affiliates may hold a position or act as market maker in the financial instruments of any issuer discussed herein or act as an underwriter, placement agent, advisor or lender to such issuer.
References in this report to "J.P. Morgan" are to JPMorgan Chase & Co., its subsidiaries and affiliates worldwide.

Legal Entities and Regulatory Information: In the **United States**, Bank deposit accounts, such as checking, savings and bank lending, may be subject to approval. Deposit products and related services are offered by **JPMorgan Chase Bank, N.A**. Member FDIC.

JPMorgan Chase Bank, N.A. and its affiliates (collectively "**JPMCB**") offer investment products, which may include bank managed accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through **J.P. Morgan Securities LLC ("JPMS")**, a member of FINRA and SIPC. JPMCB and JPMS are affiliated companies under the common control of JPMorgan Chase & Co. Products not available in all states.

In the **United Kingdom**, this material is issued by **J.P. Morgan International Bank Limited (JPMIB)** with the registered office located at 25 Bank Street, Canary Wharf, London E14 5JP, registered in England No. 03838766. **JPMIB** is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. In addition, this material may be distributed by **JPMorgan Chase Bank, N.A. ("JPMCB"), Paris branch**, which is regulated by the French banking authorities Autorité de Contrôle Prudentiel et de Résolution and Autorité des Marchés Financiers or by **J.P. Morgan (Suisse) SA**, which is regulated in Switzerland by the Swiss Financial Market Supervisory Authority (FINMA).

In **Hong Kong**, this material is distributed by **JPMCB, Hong Kong branch**. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by **JPMCB, Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMIB and/or JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. You are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

With respect to countries in **Latin America**, the distribution of this material may be restricted in certain jurisdictions. Receipt of this material does not constitute an offer or solicitation to any person in any jurisdiction in which such offer or solicitation is not authorized or to any person to whom it would be unlawful to make such offer or solicitation. To the extent this content makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund´s securities in compliance with the laws of the corresponding jurisdiction. Public Offering of any security, including the shares of the Fund, without previous registration at Brazilian Securities and Exchange Commission – CVM is completely prohibited. Some products or services contained in the materials might not be currently provided by the Brazilian and Mexican platforms.This material should not be duplicated or redistributed without our permission.

© 2017 JPMorgan Chase & Co. All rights reserved.