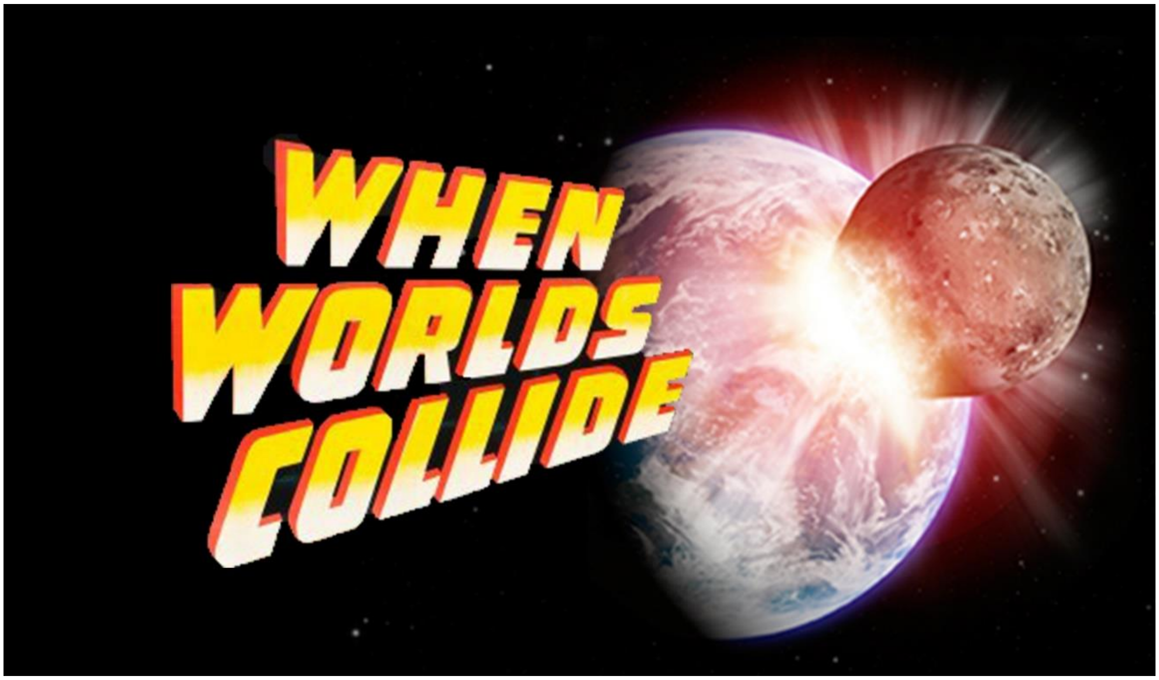
2017-2018 Overall Economic Employment Forecast©

by Kathy Graham



"I look forward to Kathy's annual employment situation forecasts. She peels the opportunity onion to cook up an outstanding analysis, even if it causes tears some years. Near as I can tell, she's on a 14 year streak of spot-on winning calls."

– Gerald W. Laurain, CFA, SVP, Chief Investment Officer, Wealth Management, First Tennessee Bank

SUMMARY:

For the next year, tread lightly as non-economic goals are causing worlds of value, national identity, traditions, and directional focus to collide. Until the dust has settled, the uncertainty as to which worlds will survive and in what format is high, which will cause firms, individuals, and countries to defer investment and other actions.

Yes, tax cuts are very likely to occur in the US in the next 12 months, which should increase US GDP growth projections to 2.2% - 2.9% in 2017 - 2018.[1]

A counter to this positive influence: US corporations are already holding $9.25 trillion in cash domestically[2] and another $1 - $2.6 trillion in cash overseas[3]. Given that firms aren't investing those monies now, even with record-low borrowing costs, what would prompt them to use that $10+ trillion after a tax cut?

For every positive influence that could stimulate US and world GDP, there exists likely countering negative influences—just like the tax impact example above. On pages 4 through 14 is the review of all those negative and positive factors considered in creating this forecast.

My global forecast for the next 12 months is for continuing improving but weak growth, low consumption due to caution and demographics, low investment due to the high level of global policy uncertainty, low labor productivity, continued almost full US employment, and no US recession.

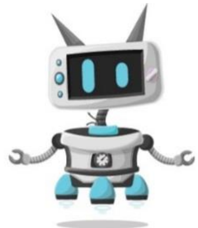
If decisions are made that cause the US to meaningfully change its role as the world's single largest importer and exporter of goods and services and the largest exporter and importer of business services, this just stated forecast is null. Why? The world economy is likely to be significantly negatively impacted if trade decisions go awry (see pages 8, 10, 11, and 12), with unemployment increasing globally, putting strains on economies and creating retaliatory reactions that could impact the US.

Technology continues to be the premier force that's behind these worlds colliding as its accelerating impacts move economies, jobs, and profit. Its effects are present in the lists of HOT JOBS and FUTURE DODO JOBS and my recommendations on how to achieve the most corporate profit and career advancement. This info can be found on pages 2 and 3 of this forecast.

Organizations and individuals are at one of those economic pause points where religious views, personal values, how we define ourselves as communities (big and small), ideologies, and how inward-looking or outward-focused we want to be, are hashed out collectively. Once consensus occurs, uncertainty and its discord minimizes and the next level of high growth—personal, organizational, nationally, and globally—will emerge.

In the meantime, there's plenty each of us can do now to be prepared for that next high growth phase, especially if we want to stay profitable and relevant.

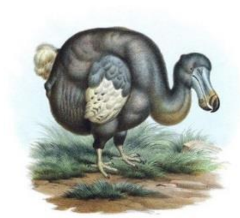
What's behind all the change that's causing this period of non-economic values discussion and focus?



Technology. The rapid advances have been mind boggling, both in their range and speed.

One of the most impacted areas has been and will continue to be jobs—how people make their income, how companies make their profit.

Economics 101 says that companies use the most cost effective combination of labor and capital to produce their products and services that create the revenue that drives an economy's growth. Labor are the people, the human capital element. Machines—including automation, robots, and artificial intelligence (AI)—are the capital, the physical capital element. Machines can be substituted for labor and vice versa, depending upon availability, capability, and cost.



THE DODO JOBS

Technological advances have eliminated many positions once held by individuals, ranging from gas station attendants, tool and die makers, human computers (i.e., people who compute—see the movie *Hidden Figures* to understand how people before machine computers got astronauts to the moon—it's amazing), and telephone switchboard operators—just to name a few.

The gas station attendant was eliminated by an automated pump that anyone can operate that accepts your payment before dispensing gas. Tool and die makers have been replaced by laser guided automated machines. The tool and die makers who still exist are making one-half of what the former generation of tool and die makers earned—current salary is on average $50,000 to under $80,000 whereas they used to make over $100,000 in the 1990s…and that's not adjusted, so that $100k bought a lot more back then.

Human computers were eliminated by machine computers and telephone switchboard operators by computerized telephone dialing systems.

A DOZEN FUTURE DODO JOBS

Here's a list of what the future dodo jobs are likely to be with examples as to why they're included in this list.

1. **Cashiers**—"Amazon opened a checkout-free grocery store in Seattle…automatically tracks what customers remove from the shelves, eliminating the need to ring up a bill at a checkout before they leave."[4] **Kathy's comment: goodbye, shoplifting.**
2. **Truck, bus, and taxi drivers**—Google's driverless car Waymo—"Waymo has ambitions to apply its self-driving technology to car-sharing, trucking, logistics, and public transport…"[5]
3. **Most manufacturing positions**—"one worker running three computer-controlled machines… More manufacturing is going to be done here [US]. But it won't involve many people. It's not going to employ those less-educated, dexterous workers who have been eliminated from the labor force over the past 15 years."[6]
4. **Many bank/finance jobs**, including: investment bankers, loan officers, tellers, payment processors, etc.[7][8][9][10]
5. **General practice doctors**—"In India and Brazil, machines are already starting to do the work of primary care doctors. Mathematically, they follow evidence—and are much more likely to make the right diagnosis."[11] **…think Skype doctoring, too**.
6. **Receptionists**—"Obviously, the biggest at-risk professions of today are the ones that are highly repetitive and use some kind of technology. Loan officers, receptionists, and information clerks are at the top of the list, followed by paralegals, retail clerks, and financial advisors."[12]
7. **Clerks**, both in retailers and in all types of offices
8. **Paralegals and all others in legal field, including lawyers, who are not specialists**[13]
9. **Financial advisors who are not specialists**
10. **Accountants who are not specialists**[14]
11. **Recruiters**, except for CEO and Board positions
12. **Traders, except for highly specialized anomalies**

…and MANY MORE, too numerous to list here.

NOTE: Due to new technological advances:

1. For most jobs that have rote work as component(s), know that those segments will soon, if not already, be automated and/or given to a robot or AI to do. Think of the human computer, the telephone switchboard operator, and gas station attendant.
2. The more a job becomes automated/computerized, the lower the compensation needed to pay the remaining human capital element. Think tool and die maker.
3. Education is changing rapidly, with the focus switching from traditional brick and mortar early university degree to more lifelong, online, subscription-based, class-or-certification-or-degree, only-as-knowledge-is-needed learning.

NEW HUMAN CAPITAL DEPLOYMENT RULES

1. Consider your company's or personal location: is it a high tech city (NYC, LA, Chicago, Atlanta, etc.)? If yes, go to #5. If not, is firm or personal location likely to change soon? If moving time frame and location are acceptable, go to #2. If not, go to #5.
2. Consider your industry: does it use the latest technology or more traditional production methods? If it uses the former, go to #5. If latter, go to #3.
3. Consider your company or personal market: is it local/regional, national, or global? If global, go to #5. If local/regional/national, go to #4.
4. Consider the position: what percentage of it can be automated or computerized?
   Company: calculate the cost of automation/computerization and switch from human capital when cost savings occur, remembering to lower the human capital cost accordingly.
   Person: if a high percentage, go directly to #5. If percentage is not under 25%, start planning to implement #5. If percentage is lower than 25%, position is likely to remain the same for a bit, but stay vigilant as the velocity of change is fast.
5. This zone is:

HIGH TECH,
HIGH TOUCH and/or HIGH THOUGHT

HIGH TECH = all human capital are proficient/highly skilled in using the latest relevant automation and computer technology.

Person: If you are unable or unwilling to learn HIGH TECH, go to locations with firms/industries using more traditional production methods.

HIGH TOUCH = Emotional intelligence: the ability to recognize, understand, and influence oneself and all others' emotions and thought concepts/processes in order to create the most effective paths in achieving goals, be they organizational, group, or personal.

Company: if your positions are in this zone, humans are your choice and will need to be paid market value compensation for all non-rote duties, plus given/paid for any rote responsibilities where automation, robots, and/or AI are not cost effective.

HIGH THOUGHT = Strategic leader and doer, the motivator, the team builder, the visionary, the problem-seeing and problem-solver.

Company: these are the individuals at the helm of the most important initiatives, departments, and the executive team…and they are humans, not machines.

Person: Learn the language of HIGH THOUGHT after excelling as a professional in your field. Add HIGH TOUCH and your job is safe from computers.

HOT JOBS

1. **Cyber Security**, both from a technical, but also more so from a HIGH THOUGHT perspective—i.e., cybersecurity enterprise risk management, cybersecurity accounting processes/safeguards/etc., cybersecurity human capital training, etc. You name the field—healthcare, finance, music—there's cyberattacks galore requiring knowledge of the specific industries and related cyber security defenses.[15][16][17][18][19][20]
2. **Instructional Design and Content Development**, especially how adults of different backgrounds learn. When firms are not able to substitute physical capital for labor, companies are beginning to retrain their existing employees continually.[21] It's a growing demand because the current environment is one where (a) human capital is at almost full employment; (b) the supply of human capital is decreasing due to age of populations and restrictions on immigration; (c) the velocity of change in corporate strategies and personnel—"businesses are moving through their lifecycles two times faster today than 30 years ago," "the 5-year exit risk of PUBLIC companies is a one-in-three chance of not making it through the next five years, compared to only a 5% of not making it fifty years ago,"[22] and C-Suite turnover is the highest in decades;[23] and (d) the velocity of change in technology is amazingly fast.[24]
3. **Engineers.** A person has to design/build most infrastructure and technology…and those individuals are usually engineers.
4. **Repair professionals**. A person has to keep most technology and systems running and maintained, checking to ensure that physical capital is performing its functions correctly.
5. **Consultants**. With change such a constant, hiring an expert for a specific issue makes sense, especially since it's now so easy to hire a freelancer or independent contractor given the advances in technology.[25]
6. **Entrepreneurs and Intrapreneurs**. To keep profits through innovation flowing.
7. **Physical security**. In times of uncertainty, the threat of violence needs to be preempted. Also, there's much more expensive technology sitting in corporations and homes that requires both human and machine surveillance protection.

POSITIVE: NEGATIVE: MIXED:
FACTORS CONSIDERED REGARDING:
Global Economy

- 2017 OECD Report: For the last 5 years, the global economy has been in a low-growth trap, with growth disappointingly low & stuck at around 3% per year.
- IMF Growth Forecast 2017: Today, stable growth performance has reduced near-term concerns about China, commodity prices have partially recovered, & the Federal Reserve's initial interest rate hike is behind us. Global asset markets seem placid after these developments, with advanced economy equity prices at high levels, market based volatility measures low, & renewed capital inflows to emerging market economies & our baseline forecast sees improving world growth in the years ahead…
- IMF Growth Forecast 2017: …A closer look, however, gives cause for disquiet. A common thread is the still weak & precarious nature of the global recovery, & the threats it faces. Especially in a low-demand environment where key policy interest rates are near effective lower bounds, tepid growth risks becoming self-perpetuating as investment falls, productivity growth declines, labor markets become less dynamic…human capital erodes. Moreover, declining growth rates, along with increased income inequality & concerns about the impact of migration contribute to political tensions that block constructive economic reforms & threaten a rollback of trade integration. These tensions will only worsen as governments struggle more & more to make good on social entitlements in the face of shrinking tax bases…adding to the uncertainty is the impact of the referendum results on political sentiment in other EU members, as well as on global pressure to adopt populist, inward-looking policies.
- IMF Growth Forecast 2017: Both economic & noneconomic factors threaten to keep these assumptions from being realized & imperil the baseline outlook more generally. The first risk is political discord & inward-looking policies. A fraying consensus about the benefits of cross-border economic integration. Concerns about the impact of foreign competition on jobs & wages in a context of weak growth have enhanced the appeal of protectionist policy approaches, with potential ramifications for global trade flows & integration more broadly. Concerns about unequal (& widening) income distribution are rising, fueled by weak income growth as productivity dynamics remain disappointing. Uncertainty about the evolution of these trends may lead firms to defer investment & hiring decisions, thus slowing near-term activity, while an inward-looking policy shift could also stoke further cross-border political discord.
- IMF Growth Forecast 2017: A second risk is stagnation in advanced economies. As global growth remains sluggish, the prospect of an extended shortfall in private demand leading to permanently lower growth & low inflation becomes ever more tangible, particularly in some advanced economies where balance sheets remain impaired.
- IMF Growth Forecast 2017: China's ongoing adjustment & associated spillovers. The economy's transition away from reliance on investment, industry, & exports in favor of greater dependence on consumption & services could become bumpier than expected at times, with important implications for commodity & machinery exporters as well as for countries indirectly exposed to China through financial contagion channels. That risk is heightened by current short term growth promoting measures on which China is relying, as a still rising credit to GDP ratio & lack of decisive progress in addressing corporate debt & governance concerns in state-owned enterprises raise the risk of a disruptive adjustment.
- IMF Growth Forecast 2017: While the baseline forecast for the global economy points to a pickup in growth over the rest of the forecast horizon, the potential for setbacks to this outlook is high.
- World Bank's 2017 Global Economic Prospects: Stagnant global trade, subdued investment, & heightened policy uncertainty marked another difficult year for the world economy. A moderate recovery is expected for 2017, with receding obstacles to activity in commodity-exporting emerging market & developing economies.
- The Usual 21st Century Risks: Terrorism, cyber attacks, energy, pan-epidemics, healthcare costs, & operational risks.
- IMF Growth Forecast 2017: In advanced economies, output gaps are still negative, wage pressures are generally muted & the risk of persistent low inflation (or deflation in some cases) has risen.

WORLD ECONOMIC OUTLOOK:
SUBDUED DEMAND – largest % changes

Country	2015	2016	2017
US	2.1	1.6	1.8
Spain	3.2	3.1	2.2
Canada	1.1	1.2	1.9
Non G7 BIG Economies	2.0	2.0	2.3
Russia	-3.7	-0.8	1.1
Excluding Russia CIS	-0.5	0.9	2.3
China	6.9	6.6	6.2
India	7.6	7.6	7.6
ASEAN-5	4.8	4.8	5.1
EU	2.3	1.9	1.7

- IMF Growth Forecast 2017: Economic growth in recent years has fallen short of expectations in both advanced & emerging market economies. As the world economy moves further away from the global financial crisis, the factors affecting global economic performance are becoming more complex. They reflect a combination of global forces—demographic trends, a persistent decline in productivity growth, the adjustment to lower commodity prices—& shocks driven by domestic & regional factors. The following discuss these factors for advanced & emerging market & developing economies.
- IMF Growth Forecast 2017: Advanced economies were at the epicenter of the global financial crisis. Eight years after the collapse of Lehman Brothers, significant progress has been made in repairing the macroeconomic damage from the crisis, but the progress is uneven & the crisis scars still quite visible. GDP, economic demand, & investment are generally above pre-crisis levels, but still well below pre-crisis trends. For the aggregate of advanced economies, the unemployment rate is less than 1% point above its 2007 level. In some countries (US) the decline in unemployment to pre-crisis levels somewhat overstates the recovery in employment, given the decline in labor force participation. This uneven progress in macroeconomic repair across advanced economies is overlaid on underlying trends related to population aging & weaker productivity growth. The combination of these deeper factors may have contributed to diminished expectations of future potential output growth & profitability & to weak current demand & a lower equilibrium real interest rate. Lower equilibrium rates, in turn, limit the extent to which low policy rates can stimulate demand.
- IMF Growth Forecast 2017: Other factors have also played a role: the slowdown & rebalancing in China, which implies more modest growth in demand for advanced economies' exports; the weakening in the growth rate of global trade that has had a notable impact on prospects for advanced Asian economies that are very open & have strong trade ties to China; the decline in commodity prices that implies windfall gains for most advanced economies but sizable losses in disposable income for commodity exporters such as Australia, Canada, & Norway.
- World Bank's 2017 Global Economic Prospects: The materialization of downside risks could derail a fragile global economic recovery. The heightened level of policy uncertainty, especially regarding trade, has been exacerbated by recent political developments—most notably, electoral outcomes in the United States & the United Kingdom. This & other risks—particularly financial market disruptions amid tighter global financing conditions—may be amplified over the medium term by mounting protectionist tendencies, slower potential growth, & elevated vulnerabilities in some EMDEs.
- FT.com 10/2/16 article, Global economic growth 'sliding back into the morass': "The global economy is faltering again with growth rates "sliding back into the morass" they have been stuck in for some time, according to the Brookings Institution-FT tracking index. The results will reinforce fears that many countries have become caught in a vicious circle of low growth, popular discontent, & a backlash against trade & openness, resulting in more economic weakness. Hanging over the meetings is the fear that the failure to improve living standards in advanced & emerging economies was important in the UK's vote to leave the EU, may propel Trump to the US presidency, & will strengthen the hands of populists such as Marine Le Pen in France. The Brookings-FT Tiger index—tracking indices for the global economic recovery—suggests the world economy is still struggling to grow strongly…While the overall growth index for emerging markets has improved from the lows of late 2015 & there are signs of an end to recessions in Russia & Brazil, the level of growth remains far below historical averages. Sluggishness also continues to haunt advanced economies, which have settled into a pattern of positive but weak growth. Most of the world could be described as having "weak investment, stagnant productivity & tepid private sector confidence. With little prospect of a spontaneous recovery or strong new stimulus, a strong adverse feedback loop has set in with low growth, fragile business & consumer confidence, low interest rates, financial system stresses, trade tensions, & political instability feeding into & reinforcing each other."

Global Policies

- 2017 OECD Report: Policy uncertainties high.
- 2017 OECD Report: The risk of a growing divergence in monetary policy stances in the major economies over the next 2 years could be a new source of financial market tensions.
- 2017 OECD Report: Consumption, Investment, labor productivity, & real wages are way down from increases seen during the last 3 recoveries. **Kathy's comments: There's more going on in this recovery than recovery from a Great Recession. There's also a major shift in age/demographics of populations, huge rapid advances in technology, & a focus on non-economic values.**
- IMF Growth Forecast 2017: Political tensions have now made advanced economies a major locus of policy uncertainty…introducing political & economic uncertainties that threaten to dampen investment & hiring throughout Europe.

- IMF Growth Forecast 2017: Risks Stemming from the Policy & Institutional Domain: Institutional arrangements long in place are now potentially up for renegotiation—arrangements that have shaped how businesses organize their production & hiring; sourcing of raw materials & financing, & distribution channels across borders. Concerns about the impact of foreign competition on jobs & wages in a context of weak economic growth have enhanced the appeal of protectionist policy platforms, with potential ramifications for global trade flows. Ambiguity about how these trends will evolve may lead firms to defer long-term projects, limit job creation, & slow near-term activity.
- IMF Growth Forecast 2017: Institutional uncertainty interacting with hardening political divisions within countries can make solutions to structural challenges even more elusive. As these challenges—ranging from product & labor market deregulation to balance sheet repair, entitlement reform, & integration of migrants into labor force—become seemingly more intractable, perceptions of policy ineffectiveness could become more firmly rooted & the coordinating role of policy could diminish. If any of risks outlined were to materialize, toll on sentiment could be amplified by concerns that policy action will fail to offset the shock decisively.
- World Bank's 2017 Global Economic Prospects: Important downside risks stem from heightened policy uncertainty in major economies. Downside risks to global growth include increasing policy uncertainty in major advanced economies & some EMDEs; financial market disruptions; & weakening potential growth…limited room for macroeconomic policy to absorb further adverse shocks, subdued growth prospects.

Financial

- 2017 OECD Report: Financial risks are high.
- 2017 OECD Report: Following 5 years of intense fiscal consolidation, debt-to-GDP ratios in most advanced countries have flattened.
- 2017 OECD Report: Pricing distortions in financial markets abound. Yield curves are still fairly flat, with negative interest rates. Pricing of credit risk has narrowed even as issuance of riskier bonds has increased. Real estate prices continue to advance in many markets, even in the face of attempted tempering by macro-prudential measures. Expectations in currency markets are on edge as evidenced by high measures of currency volatility. These financial distortions & risks expose vulnerable balance sheets of firms in emerging markets & challenge bank profitability & the long-term stability of pension schemes in advanced economies.
- IMF Growth Forecast 2017: The risk of a growing divergence in monetary policy stances in the major economies over the next 2 years could be a new source of financial market tensions.
- IMF Growth Forecast 2017: Another risk is financial conditions in emerging markets, although continuing to improve, underlying vulnerabilities remain among some large emerging market economies. High corporate debt, declining profitability, weak bank balance sheets—together with the need to rebuild policy buffers, particularly in commodity exporters—leave these economies still exposed to sudden shifts in investor confidence.
- IMF Growth Forecast 2017: The weakness in growth relative to past forecasts, which is common across advanced economies & regions, was accompanied by fixed investment falling short of expectations, especially in the US, commodity exporters, & advanced Asian economies.
- World Bank's 2017 Global Economic Prospects: Weak investment is weighing on medium-term prospects across many emerging market & developing economies. Although fiscal stimulus in major economies, if implemented, may boost global growth above expectations, risk to growth forecasts remain tilted to the downside.
- Standard & Poor's: In 9/16 global corporate default rate has topped 100 (118), the first time since 2009 & 51% higher than pace established last year, with energy/natural resources sector the largest default contributor & US accounting for 76% defaults.
- Moody's Global Default Rate: 11/9/16: Moody's global speculative-grade default rate closed at 4.7% for the trailing 12-month period ended 10/31/16, up from 4.5% in September…Commodity sectors continue to see the most defaults…The historical average is 4.2%..."Factors driving our benign default outlook include an issuer-friendly market that has allowed companies to refinance as necessary, mitigating the risk of debt nonpayment. In addition, default risk is expected to decline in the commodity sectors in 2017, with weaker companies having been weeded out & those that survive being relatively healthier." The rating agency does, however, expect default risk to remain higher for these firms, with default risk to be highest in the US metals & mining sector in the coming year. In Europe, on the other hand, consumer service is expected to be the most troubled sector.
- CNBC.com 12/21/16 article, "What the 'fear index' is telling investors about markets now & into 2017": "The VIX fell below 11.5 to its lowest level since December 8th, coming within half a point of the year's low at 11.02...Everything about it is telling me people are kind of apathetic about what's going to happen for the rest of the year…The VIX may be an indicator that investors are almost acting in "fear of

missing out" in the rally. It's not only telling us complacency. It's almost talking about greed to me…With the election over, investors feel like they have the world figured out & with a clear playbook, there's less volatility. You may have a playbook, but you may still lose the game. The year ahead brings other risks—dollar strength, the UK's formal negotiations to leave the EU, other Euro elections, & violence or the potential for it…2017 is going to be a year where people are going to come in complacent into events that aren't scheduled. Trump's policy has no dates. Other factors, such as major moves within S&P500 sectors & lack of buying interest, are behind the low VIX. December is also generally a low point of the year for the VIX…Analysts resist comparisons between the postelection market rally today & the dot-com bubble at the turn of the century. The Dow first topped 10,000 in 1999 & the VIX at that time was above 23, nearly twice where it was Wednesday."

- FT.com 10/2/16 article: "Inequality decreased after global financial crisis": "Despite popular belief, the world became a more equal place in the years after the global financial crisis, with twice as many countries seeing declines in inequality as increases, according to the World Bank. Fewer people are living in extreme poverty. The consensus has been that the growth over the past 30 years of emerging economies such as Brazil, China & India has led to the biggest decrease in inequality between countries since the Industrial Revolution. That progress, however, is thought to have come at the cost of an increase in inequality within countries, particularly in the industrialized world, as competition with new powers like China has hurt workers while the wealthy have benefitted from the rising value of financial assets. But the new study by World Bank researchers found that inequality within countries actually decreased since the 2008 crisis, with major industrialized economies among the beneficiaries. The UK was the industrialized economy that saw the biggest decline in inequality after the crisis. Others include the US, Germany, Brazil, & China."
- SHRM 9/14/16 article: "Household Income Sees Largest Gain Since '98: "There were also warning signs concerning the growing gap between high & low income households…income inequality has increased from 1999 to 2015 [in US]. Midlevel & lower household incomes declined 2.4% & 9.9% while income at the 90^{th} percentile increased 5.7% during those years. The 90^{th} to 100^{th} percentile income ratio has increased 17.4%. Households in the lowest quintile had incomes of $22,800 or less in 2015, while those in the highest quintile had incomes of $117,003 or more. The top 5% of households in the income distribution had incomes of $214,463 or more.

Trade

- World Bank's 2017 Global Economic Prospects: Global trade growth in 2016 recorded its weakest performance since the global financial crisis. Stagnant goods trade for most of 2016 was exacerbated by a cyclical drawdown in inventories across advanced economies & contracting imports in China & in major commodity exporters. The sharp drop in oil prices from mid-2014 to early 2016 could have contributed to the weakness in global trade over that period, as income losses were highly concentrated among a few countries, while gains were diffused among many—import demand is generally more sensitive to large changes in income than to smaller changes. The observed slowdown in global investment in 2015-16 played an important role as well, as capital goods account for about one third of world goods trade.
- World Bank's 2017 Global Economic Prospects: Structural forces at work include a slower pace of trade liberalization & of global value chain integration. In an environment of weak global trade, stagnant real income gains in major advanced economies, & marked currency movements between major reserve currencies, protectionism has been slowly rising. For example, **in 2016 G20 countries have taken more trade-restrictive measures than trade-facilitating ones.** Although subsidies & trade safeguard measures are still by far the most common forms of trade distortion, there has been a shift toward more opaque measures, such as localization requirements, export incentives, & other trade finance measures. The appetite for further trade liberalization has waned, particularly among major advanced economies, which in turn appears to have contributed to the global trade slowdown more than the rise in temporary trade barriers.
- World Bank's 2017 Global Economic Prospects: The maturation of global value chains also contributed to a lower income elasticity of trade (the additional trade generated by an increase in global GDP). This trend, which had been observed prior to the global financial crisis, has intensified in recent years. Among major advanced economies, the slowdown in global value chain participation is particularly visible in the US & Japan. Among EMDEs, China's move toward more mature domestic intermediate production has also contributed in lowering its trade elasticity.
- IMF Growth Forecast 2017: Tensions afflict the US political scene where…anti-trade rhetoric have been prominent…across the world, protectionist trade measures have been on the rise.

- IMF Growth Forecast 2017: The forces behind the recent growth slowdown in the volume of international trade. A major driver is slower growth in aggregate demand, particularly in investment, which is especially apt to generate international trade flows in the form of capital goods & intermediate inputs. But key roles are also played by the slowing momentum of trade liberalization measures, the return of some protectionist measures, & the (possibly related) retraction of global value chains. Some of the trade slowdown may reflect a natural maturation of the tendencies that propelled trade growth in the past, but it also seems likely that more worrisome pressures are at work, & that these may in turn reduce business dynamism & productivity growth.

- IMF Growth Forecast 2017: Increasing pressure for inward-looking policies are a particular threat to the global outlook. GDP, consumption, & investment of both countries are negatively affected by unilateral tariff increase. The implications for the global economy of a generalized increase in protectionism, taking the form of higher tariff & nontariff barriers is not just a collapse in trade flows, but also a sharp decline in global output. The negative repercussions for the global economy could be even larger because the disruption in international economic linkages drive a more generalized decline in cross-border cooperation.

- 2017 OECD Report: **This Economic Outlook suggests that protectionism & inevitable trade retaliation would offset much of the effects of the fiscal initiatives on domestic & global growth, raise prices, harm living standards, & leave countries in a worsened fiscal position.** Trade protectionism shelters some jobs, but worsens prospects & lowers well-being for many others. In many OECD countries, more than 25% of jobs depend on foreign demand. **Kathy's comments: After looking at Foreign Demand, I pulled World Bank's GDP 2015 Exports of Goods & Services as a Percentage of GDP by Country: only 2 countries (US & Brazil) out of the top largest 20 countries in the global GDP are NOT dependent on exports to keep their citizens employed…& only 36 of the 156 other countries are NOT dependent on exports to keep their citizens employed.** **See graphs of status of Top 20 GDP countries (top right, page 8), affected countries (bottom page 8), & unaffected countries (top of page 9).**

Rank of Economy as % of Global GDP	Country	2000 Exports of Goods & Services as % of GDP	2015 Exports of Goods & Services as % of GDP
1	United States	11	13
2	**China**	21	**22**
3	**Japan**	11	**18**
4	**Germany**	31	**47**
5	**United Kingdom**	25	**27**
6	**France**	28	**30**
7	**India**	13	**20**
8	**Italy**	26	**30**
9	Brazil	10	13
10	**Canada**	44	**32**
11	**South Korea**	35	**46**
12	**Russia**	44	**30**
13	**Australia**	19	**20**
14	**Spain**	29	**33**
15	**Mexico**	26	**35**
16	**Indonesia**	41	**21**
17	**Netherlands**	66	**82**
18	**Turkey**	20	**28**
19	**Switzerland**	52	**63**
20	**Saudi Arabia**	44	**34**

#	Country	2000 Exports of Goods & Services as % of GDP	2015 Exports of Goods & Services as % of GDP
1	Luxembourg	149	214
2	Hong Kong SAR, China	142	202
3	Singapore	189	176
4	Malta	119	141
5	Ireland	94	124
6	United Arab Emirates	49	97
7	Slovak Republic	54	93
8	Maldives	89	92
9	Hungary	67	91
10	Vietnam	50	90
11	Belgium	72	83
12	Czech Republic	48	83
13	Seychelles	75	83
14	Estonia	62	79
15	Macao SAR, China	100	78
16	Slovenia	50	78
17	Lithuania	39	76
18	Puerto Rico	72	76
19	Bahrain	79	72
20	Malaysia	120	71
21	Congo, Rep.	80	69
22	Thailand	65	69
23	Bulgaria	36	64
24	Belize	53	63
25	Cambodia	50	62
26	Palau	45	62
27	Cyprus	70	61
28	Belarus	69	60
29	Equatorial Guinea	122	60
30	Latvia	37	59
31	Lebanon	14	57
32	Oman	54	56
33	Qatar	67	56
34	Iceland	32	54
35	Kuwait	56	54
36	Panama	62	54
37	Austria	43	53
38	Denmark	45	53
39	Ukraine	62	53
40	Botswana	52	52
41	Brunei Darussalam	67	52
42	Fiji	65	52
43	Faroe Islands	50	51
44	Poland	27	50
45	Croatia	37	49
46	Macedonia, FYR	33	49
47	Mauritius	61	49
48	Swaziland	70	49
49	Vanuatu	39	49
50	Bermuda	0	48
51	Serbia	10	47
52	Gabon	69	46
53	Guyana	96	46
54	Mongolia	54	46
55	Solomon Islands	24	46
56	St. Lucia	48	46
57	Sweden	44	46
58	Antigua and Barbuda	60	45
59	Georgia	23	45
60	Honduras	54	45
61	Ghana	49	44
62	Namibia	41	44
63	Moldova	50	43
64	Montenegro	37	43
65	Paraguay	47	43
66	St. Kitts and Nevis	36	43
67	Togo	34	42
68	Dominica	43	41
69	Romania	33	41
70	Trinidad and Tobago	59	41
71	Tunisia	40	41
72	Cabo Verde	27	40
73	Portugal	28	40
74	Bahamas, The	44	39
75	Cote d'Ivoire	41	39
76	Azerbaijan	39	38
77	Jordan	42	38
78	Mauritania	30	38
79	Nicaragua	20	38
80	Barbados	42	37
81	Finland	42	37
82	Norway	46	37
83	Zambia	24	37
84	Kyrgyz Republic	42	36
85	Lao PDR	30	36
86	Suriname	20	36
87	Iraq	76	35
88	Angola	90	34
89	Bosnia and Herzegovina	29	34
90	Madagascar	31	34
91	Morocco	27	34
92	Bhutan	29	33
93	Greece	24	32
94	Mozambique	13	32
95	Algeria	41	31
96	Bolivia	18	31
97	Costa Rica	43	31
98	Israel	36	31
99	South Africa	27	31
100	Armenia	23	30
101	Chad	17	30
102	Chile	29	30
103	Jamaica	33	30
104	Congo, Dem. Rep.	11	29
105	Malawi	26	29
106	Senegal	28	29
107	Benin	21	28
108	Guinea-Bissau	22	28
109	Kazakhstan	57	28
110	New Zealand	36	28
111	Philippines	51	28
112	Albania	18	27
113	Grenada	45	27
114	Guinea	25	27
115	Samoa	30	27
116	El Salvador	27	26
117	St. Vincent & Grenadines	45	26
118	Zimbabwe	38	26
119	Burkina Faso	10	25
120	Dominican Republic	37	25
121	Cuba	14	24
122	Iran, Islamic Rep.	21	24
123	Liberia	31	23
124	Gambia, The	26	22
125	Mali	22	22
126	Tanzania	13	22
127	Uruguay	17	22
128	Ecuador	32	21
129	Guatemala	20	21
130	Myanmar	1	21
131	Peru	17	21
132	Sri Lanka	39	21
133	Uzbekistan	25	21
134	Cameroon	23	20
135	Haiti	13	20
136	Kosovo	0	19
137	Sierra Leone	18	19

Country	2000 Exports of Goods & Services as % of GDP	2015 Exports of Goods & Services as % of GDP	#
Tonga	14	18	1
Uganda	11	18	2
West Bank and Gaza	21	18	3
Bangladesh	12	17	4
Comoros	23	17	5
Niger	18	17	6
Venezuela, RB	30	17	7
Kenya	22	16	8
Colombia	16	15	9
Rwanda	6	14	10
Somalia	0	14	11
Central African Republic	20	13	12
Egypt, Arab Rep.	16	13	13
Kiribati	12	12	14
Nepal	23	12	15
Argentina	11	11	16
Nigeria	52	11	17
Pakistan	13	11	18
Tajikistan	99	11	19
Ethiopia	0	10	20
South Sudan	0	10	21
Yemen, Rep.	41	10	22
Sudan	16	8	23
Afghanistan	32	7	24
Burundi	6	6	25
Timor-Leste	21	6	26
Aruba	74	0	27
Djibouti	35	0	28
Eritrea	10	0	29
French Polynesia	5	0	30
Libya	32	0	31
New Caledonia	13	0	32
Papua New Guinea	66	0	33
Syrian Arab Republic	35	0	34
Turkmenistan	96	0	35

Commodities

- IMF Growth Forecast 2017: Commodity exporters still struggle with past investment overhangs in extractive sectors, along with the challenges of fiscal adjustment & longer-term economic diversification.
- World Bank's 2017 Global Economic Prospects: Commodities-oil: Crude oil prices have recovered from a low of $30 per barrel (bbl) at the start of 2016, but are still half of their pre-2015 levels…OPEC's ability to guide global oil prices higher will likely be challenged by the presence of unconventional oil producers, notably US shale oil, which can respond rapidly to changing market conditions…As the stock overhang is expected to gradually unwind, oil prices are projected to increase from $43/bbl in 2016 to $55/bbl in 2017…The outcome of the US election might also lead to some policy-induced changes in energy market fundamentals, but such changes are likely to be limited. Less strict environmental regulation in the US could potentially contribute to lower oil prices, while geopolitical uncertainty could make oil prices more volatile.
- World Bank's 2017 Global Economic Prospects: Metals prices have risen from lows in early 2016 on strong demand, partly from China's stimulus to property & construction sectors. Average annual metals prices dropped in 2016, but are expected to rise marginally in 2017 as markets slowly tighten. Metals price risks depend critically on China demand, given that the country accounts for more than half of global metals consumption. Greater emphasis on infrastructure could lead to higher US metal consumption, putting some upward pressure on prices; more protectionist trade policies might negatively affect metals demand, particularly from China.
- World Bank's 2017 Global Economic Prospects: Agricultural prices are projected to remain broadly stable in 2016 & 2017…Since agricultural production is energy-intensive, lower energy costs continued to have a dampening effect on prices in 2016.

Demographics

- IMF Growth Forecast 2017: A resentment of cross-border migration that has fueled nationalist sentiment in Europe & called into question the way forward for EU integration. Exacerbated by the difficulties of absorbing a large volume of refugees who have fled tragic events in the Middle East. In general, centrifugal political forces across the continent are making it harder to advance or even maintain economic reforms. Similar tensions afflict the US political scene where anti-immigrant rhetoric have been prominent.
- IMF Growth Forecast 2017: Regarding migration, both sending & receiving countries are impacted. Low-skilled & high-skilled migrants alike contribute to positive long-term productivity effects in receiving advanced economies. These effects raise per capita income broadly across the income distribution. Demands to reduce immigration would foreclose these income gains, while accentuating the negative effects of workforce aging.
- IMF Growth Forecast 2017: Demographic trends & migration impact on advanced countries: With low fertility rates, population growth in advanced economies has declined over the past decade & is projected to decline further over the next 5 years & beyond. Slowing population growth has been accompanied by aging. Population aging is set to increase pressure on pension & health care systems & worsen debt dynamics, especially as the workforce starts to shrink. Even more dramatic is the decline in the growth rate of China's working-age population, which is projected to turn negative over the next 5 years.
- IMF Growth Forecast 2017: Migration from emerging market & developing economies over the past few decades has alleviated the impact of aging on the labor force in advanced economies. The share of

migrants in the advanced-economy population almost doubled from 6% to 11% between 1990 & 2015. As the majority of migrants tend to be of working age, migration contributed about half of the increase in the working-age population between 1990 & 2010.

- IMF Growth Forecast 2017: Receiving migrants, however, also creates challenges for advanced economies, especially in a context of weak economic growth. Concerns about the impact on wages & possible displacement of native workers & short term fiscal costs can potentially add to social tensions. These concerns can in turn spur a political backlash. However, once integrated into the labor force, migrants tend to benefit recipient economies.
- IMF Growth Forecast 2017: The number of international migrants increased from 150 million in 1990 to 250 million as of the end of 2015 & refugee flows—driven by geopolitical factors, wars, & conflict—have surged over the past couple of years, & continue with over half a million applications for asylum during the first half of 2016. This surge increased the number of refugees to about 16 million as of the end of 2015—although they still represent a small share in total migration.
- IMF Growth Forecast 2017: Large migration, whether triggered by economic or noneconomic forces, has significant repercussions both for sending & for receiving countries. Moreover, against a background of low growth along with rising inequality in many countries, migration can add anxiety about globalization & feed a political climate that stalls structural reforms & growth.

Labor

- IMF Growth Forecast 2017: A second important trend—with much more uncertainty surrounding its causes & likely persistence—is weak productivity growth. Labor productivity growth for the 2008 – 2014 period had been below pre-crisis trends for all but one of a sample of some 30 advanced economies. The causes for the productivity slowdown remain uncertain. It may partly reflect crisis legacies & prolonged weak investment, as well as the exhaustion of productivity gains from the information & communications technology revolution.
- ADP US Report: The private sector generated an average of 174k jobs per month, down from 209k in 2015. While job gains in December were slightly below our monthly average, the US labor market has experienced unprecedented 7 years of growth that has brought us to near full employment. As we enter 2017, the tightening labor market will likely slow the growth. The gap between employment growth in the service economy & losses on the goods side persists. Smaller companies are struggling to maintain payrolls while large companies are expanding at a healthy pace.

United States (all from World Bank's 2017 Global Economic Prospects)

- The US is the world's single largest economy (at market exchange rates) accounting for almost 22% of global output & over a third of stock market capitalization. It is prominent in virtually every global market, with about 1/10th of global trade flows, 1/5 of global FDI stock, close to 1/5 of remittances, & 1/5 of global energy demand. Since the US dollar is the most widely used currency in global trade & financial transactions, changes in US monetary policy & investor sentiment play a major role in driving global financing conditions.
- Affiliates of US multinationals operating abroad & affiliates of foreign companies located in the US account for a sizable share of output, employment, cross-border trade & financial flows. 1/6 of consumer goods purchases by US consumers are for imported goods, with an even higher share in cars & consumer electronics.
- The incoming administration has signaled its intention to pursue more expansionary fiscal policies, which could lead to stronger growth in the short-term. It has also promised a change in direction in trade policies. In designing these policies, the challenge will be to generate domestic benefits while containing potentially adverse feedbacks from their global repercussions.
- The US is the world's single largest economy & has the world's third largest population. It accounts for more than 22% of global GDP, 11% of global trade, 12% of bank foreign claims, & 35% of global stock market capitalization.
- The US share of global output & trade has remained broadly stable since the 1980s, whereas the share of other major advanced economies has declined gradually. **The US is the single largest international creditor & debtor**: it holds the largest stock of foreign assets & liabilities &, by a wide margin, the largest net foreign asset position. Countries whose trade & financial ties are predominantly with the US are directly exposed to US developments. **Kathy's comments: 67.5% of US government issued Treasuries are held by US citizens/entities with largest owner of total US government debt being China at 6.4%. See endnotes for more detail.**[26][27][28]
- **Trade accounted for 30% of US GDP in 2015**, less than the average for other advanced economies (70%) but almost twice as much as in the 1980s (18%). **The US is the world's single largest importer & exporter of goods & services, & the largest exporter & importer of business services.** It accounts for 14% of global goods imports & 9% of global services imports.

- **Manufactured goods account for more than ¾ of US goods imports**, with oil imports making up most of the remainder despite a steady decline since 2000. The most prominent imported manufacturing categories are motor vehicles, data processing machines, & drugs. **More than 2/3 of US manufacturing imports originate from China (24% of imports), the European Union (20% of imports), the European Union (20% of imports), Mexico & Canada (combined 24% of imports). Kathy's comments: If countries are dissatisfied with how new trade agreements are proceeding, what happens to the price & quantity of imports the US receives? What impact on US industries if imports can't be replaced by internal sources?**
- **The US is the single largest export destination for 1/5 of the world's countries.** It is the largest export market for more than half of the EMDEs in Latin America & the Caribbean, & South Asia, & the primary export market for several countries in other EMDE regions, especially in East Asia Pacific, Mexico, Colombia, Ecuador & many smaller Central American EMDEs rely particularly heavily on exports to the US.
- **The growth of trade linkages between the US & other countries has taken place in an era of trade liberalization.** The majority of US trade is conducted under the Most Favored Nation (MFN) regime, with average tariffs at 3.5% (5.2% for agricultural products). **In addition to multilateral agreements, the US has negotiated 14 bilateral or regional trade agreements with 20 partners' countries, which cover 32% of it imports of goods & services. The largest of these agreements is NAFTA in force since 1994. Kathy's comments: New trade agreements take time to reach consensus & craft new signed agreements. What happens to these imports & exports in the meantime?**
- The US remains the world's largest source & recipient of foreign direct investment (FDI) flows, accounting for about ¼ of world FDI inflows & outflows in 2015. The EU, Japan, Canada, & Switzerland together hold about 90% of FDI assets in the US, while the EU & Canada are the largest recipients of US FDI. The countries of the Latin America & Caribbean region are the most exposed to FDI inflows originating in the US, in particular, Brazil, Chile, & Mexico.
- Around 80% of EMDE bond issuance & more than 50% of cross-border bank flows to EMDEs are denominated in US dollars. Europe & Central Asia is the only EMDE region where the US dollar is surpassed—by the euro—as the currency of denomination for cross-border bank flows. Ecuador, El Salvador, & Panama use the US dollar as their official currency; more than 30 other EMDEs maintain exchange rate pegs against the US dollar. A large share of official foreign exchange reserves (63%) are dollar-denominated.
- The US is a large producer & consumer of commodities. It has re-emerged as the largest producer of oil & natural gas in recent years, accounting for 13% of global oil production. US production is almost evenly split between natural gas & petroleum, in contrast to the predominantly petroleum-based production of other major hydrocarbon producers such as Russia & Saudi Arabia. US shale oil production, which tripled during 2009-14, requires little capital investment & can be brought on-stream rapidly; hence, it has become a highly flexible source of global oil supply, responding quickly to price changes.
- The US is also the world's largest biofuel producer, accounting for 42% of global production, & 1/3 of US maize production.
- The US is still the largest consumer of natural gas & oil, accounting for more than 1/5 of global consumption. It is the second largest consumer of a wide range of commodities, including aluminum, copper, lead, & coffee.
- **Business cycles in the US are somewhat more correlated with those in other advanced economies** than those in EMDEs (with the important exception of Mexico) because of deeper economic integration.
- **International business cycle synchronization tends to be particularly strong when the US economy is in recession but, over the phases of the US business cycle, GDP growth in the rest of the world correlates substantially.** More importantly, although the 4 recessions the global economy experienced since 1960 (1975, 1982, 1991, & 2009) were driven by a host of problems in many corners of the world, they all overlapped with severe recessions in the US. These 4 US recessions coincide with global recessions; there were, however, 4 other US recessions post-1960 that did not.
- Concordance statistics illustrate the degree of synchronization between the phases of the US business & financial cycles & those of other economies. **Business cycles are more highly synchronized than financial cycles: other countries tend to be in the same business cycle phase with the US cycle roughly 80% of the time. While the degree of synchronization of financial cycles with the US financial cycle is lower than that of business cycles, they are quite often in the same phase—about 60% of the time for credit, housing, & equity price cycles.** While it is difficult to establish empirically whether the US economy leads business & financial cycle turning points in other major economies, recent research indicates that the US appears to influence the timing & duration of recessions in a number of other major economies.

- US growth shocks generally have sizable effects on activity in the rest of the world. **A 1% point increase in US growth could lift growth in advanced economies by 0.8% point & in EMDEs by 0.6% points after one year, while global growth could rise by 0.7 % point. The impact on investment in these economies would be approximately twice as large.** NAFTA members (Canada & Mexico) would particularly benefit from trade spillovers. Terms of trade effects through commodity markets would be another transmission channel.
- US bond & equity markets are the largest & most liquid in the world…cross-border spillovers from US equity markets are large & depend more on openness to the global economy than on the size of actual bilateral portfolio flows. This makes US monetary policy & investor confidence an important driver of global financial conditions.
- Broad-based US dollar exchange rate movements have global implications. Episodes of US dollar appreciation tend to coincide with bank deleveraging, tighter global financial conditions, greater incidence of financial crises & subdued EMDE growth. The share of private & public debt denominated in foreign currency has declined since the 1990s, the exposure of some EMDEs to foreign currency movements is still high, especially in commodity exporters, as well as importers that have received large capital inflows after the global financial crisis.
- Higher US interest rates could reduce capital inflows to EMDEs, especially those intermediated by banks, & push up global interest rates.
- If financial markets are surprised by prospects of a less accommodative stance of US monetary policy, one that is not supported by prospects of a less accommodative stance of US monetary policy, one that is not supported by strengthening growth, this could have adverse consequences for EMDEs through asset price & capital flow channels.
- The ultimate impact on capital flows of unexpected US monetary policy tightening (beyond one warranted by strengthening US activity) would also depend on policy actions of other major central banks. A 100 basis point (BP) increase in long-term US bond yields could reduce capital flows to EMDEs by 20-45%, with the upper bound of this range reflecting simultaneous interest rate increases by other major central banks & the lower bound reflecting unchanged monetary policy elsewhere.
- Simulations using the Federal Reserve Board's model suggest that a fiscal stimulus of 1% of GDP could be expected to raise GDP by between 0.7% & 1.5% after two years…Empirical evidence of the impact of US fiscal policy on the strength of the US dollar is mixed. If US fiscal stimulus leads to a higher level of US public debt in the long-term, this could cause an increase in global interest rates & be a source of adverse cross-border spillovers through tightening financial conditions.
- Increased uncertainty driven by financial market volatility or ambiguity about the direction & scope of policies could discourage investors—in the US & elsewhere—that base their decisions about long-term investments on stable financing conditions & predictable policies. Sustained increases in financial market uncertainty, e.g., as captured in the implied volatility of the US stock market (VIX) could set output & investment growth in the US, other advanced economies, & EMDEs. A 10% increase in the VIX could reduce average EMDE output growth by about 0.2% point & EMDE investment growth by about 0.6% point after 1 year. The impact on other advanced economies would be broadly comparable.
- Important as the US economy is to the global economy, **the US economy also benefits from the strength of its linkages with the rest of the world. In 2015, trade accounted for more than ¼ of US GDP (28%) & manufacturing output for slightly more than 1/5 (22%) of GDP. Most US goods exports are manufacturing goods (87% of US goods exports), followed by agricultural products (4%) & oil, gas & minerals (2%).** The most prominent goods export categories are petroleum oils (other than crude), motor vehicles & their parts, & electronic parts. **Most US goods & services exports are shipped to Canada, the EU, Mexico, & China, which altogether account for more than 60% of total US exports. Export-intensive industries in the US have tended to be more productive & offered higher wages than non-export-intensive industries**; during 1989-2009, on average, their total factor productivity growth was 51% higher; labor productivity was 10% higher; & wages were 17% higher.
- The US hosts the world's largest number of immigrants. Immigrants accounted for 17% of the US civilian labor force, on average, in 2015, & more than ¼ in some parts of the US. Immigrants originate from all over the world, but mainly from Mexico, China, & India.
- The fiscal proposals put forward by the new US administration include a cut in the statutory corporate income tax rate from 35% to 15%. Such a corporate income tax cut could—by itself & without considering other policies by the new administration—boost US GDP growth by around 0.6% points after 8 quarters, depending in particular on the reaction of monetary policy authorities.
- The new US administration also proposed cutting personal income taxes, especially for the highest income earners; reducing the number of individual income tax brackets; & changing the structure of tax

deductions. If fully implemented, these measures could reduce the average tax rate on personal income by about 2.5% points, & by over 7% points for top income earners. Such a cut could—by itself—increase US GDP growth by around 0.3% point after 4 quarters following implementation & by cumulatively 0.4% to 0.6% point after 8 quarters, again depending in particular on the reaction of monetary policy authorities.

- Taken together, **these corporate & personal income tax reforms could—without consideration of additional policy changes by the new administration—raise US GDP growth forecasts to 2.3-2.5% in 2017 & 2.5-2.9% in 2018.** These estimates depend on the timing of the tax cuts, the reaction of monetary policy authorities, the amount of slack remaining in the US economy, & how businesses & households adjust their expectations to these policy changes. In addition, these estimates do not specifically take into account fiscal sustainability considerations.
- In the illustrative scenario of reforms to US corporate & personal income taxes discussed above, **global growth could rise by up to 0.1% point in 2017 if tax cuts are fully implemented in the second quarter of the year. While some of the proposed US corporate tax reforms could potentially affect corresponding fiscal revenues in other countries where US corporations operate, the net global impact of stronger activity & investment in the US is likely to be positive. These potential positive spillovers from US personal & corporate income tax reforms could be amplified or dampened by other policy changes.**
- Empirical studies suggest that increases in government infrastructure investment tend to have large immediate effects on activity, with fiscal multipliers often estimated to be markedly above 1.
- While specific proposals have not yet been made, it is possible that, on net, overall federal spending will be substantially reduced. Accordingly, the impact of corporate & personal income tax cuts & infrastructure spending on aggregate demand could be offset in the short term if overall federal spending is also cut. This offsetting effect would depend on the size of the net reduction in government outlays & on the estimated fiscal multiplier of various spending categories.
- Other policy proposals mentioned by the new US administration include **changes to trade agreements & import tariffs. If they lead to higher import costs, policy initiatives to renegotiate trade agreements could be detrimental to US & global activity. For about ¼ of the world's countries, the US is the largest trading partner. Moreover, given the significant integration of many US companies into global supply chains, there could be even larger adverse collateral effects from imposing new trade barriers if other countries were to retaliate.**
- Even without any policy action by the US, heightened uncertainty about potential policy initiatives could set back already-weak global investment.
- A surge in US growth—whether due to expansionary fiscal policies or other reasons—could provide a significant boost to the global economy. Tightening US financial conditions—whether due to faster-than-expected normalization of US monetary policy or other reasons—could reverberate across global financial markets, with adverse effects on some EMDEs that rely heavily on external financing. In addition, lingering uncertainty about the course of US economic policy could have a significantly negative effect of global growth prospects. While the United States plays a critical role in the world economy, activity in the rest of the world is also important for the United States.
- #1/largest portion of Global GDP: US: The fiscal policy stance is assumed to be broadly neutral to growth in 2017. However, the new administration has signaled intentions to pursue more expansionary fiscal policies, including tax cuts & measures to upgrade infrastructure, which could lead to stronger growth in the short term. In general, a fiscal stimulus of 1% of GDP could be expected to **raise US GDP by between 0.7 & 1.5% after 2 years, depending on the amount of remaining economic slack & the reaction of monetary policy authorities.**
- #1/largest portion of Global GDP: US: In terms of the proposals suggested by the new US administration, simulations indicate **that the planned reduction in corporate & personal income taxes could—if fully implemented & without consideration for other policy changes—increase US GDP growth projections to 2.2 to 2.5% in 2017 & 2.5 – 2.9% in 2018.** Estimates vary depending on the timing of the tax cuts, the reaction of monetary policy authorities, & how businesses & households adjust their expectations to policy changes. Given limited details to date about the overall scope of all fiscal measures that the new administration plans to implement, including plans to stimulate infrastructure investment & cuts in other federal government outlays, it is difficult to rigorously examine their net effect on the outlook for the US economy.
- #1/largest portion of Global GDP: US: Changes in business regulations could also support private-sector activity, while a relaxation of environmental standards could have important sectoral implications. If implemented, **plans to retreat from trade agreements or to raise tariffs & trade barriers could lead to retaliatory action & have negative effects on the outlook for the US economy. The**

renegotiation of NAFTA could have particularly significant effects on regional trade & industrial prospects.

Other Sources on United States

- Conference Board's US Employment Trends Index: In 2015, finally surpassed 2007 high average of 127.01; in 2016 reached 129.27; Index starts in 2005 at 122.57.
- Chicago Fed National Activity Index CFNAI-MA3: When a CFNAI-MA3 value moves above –0.70 following a period of economic contraction, that movement indicates an increasing likelihood that a recession has ended. A CFNAI-MA3 value above +0.20 following a period of economic contraction indicates a significant likelihood that a recession has ended. In 2016, never went positive & never went below -0.3. Last time was above zero was 8/15 at 0.01.
- December 2016 Non-Manufacturing & Manufacturing ISM Report on Business Employment December 2016: Economic activity in the non-manufacturing sector grew in December for the 83rd consecutive month with a NMI at 57.2%. Economic activity in the manufacturing sector expanded in December & the overall economy grew for the 91st consecutive month with a PMI at 54.7%. Readings for both over 50% indicate non-recessionary trends.
- The Anxious Index—Table 4's Estimated Probability of Decline in Real GDP in The Federal Reserve Bank of Philadelphia's Quarterly Survey of Professional Forecasters: number rises when recessions begin (went from low teens to 34.09 in 3rd quarter 2008, then 90.14 in 4th quarter 2008), peaking during them (peaked at 94.41 1st quarter 2009), & has been in the teens/single digits since fourth quarter 2009; 4th quarter 2016: 9.88.
- Federal Reserve's Survey of Economic Conditions: From December 2016: Reports from the 12 Federal Reserve Districts indicated that the economy continued to expand at a modest pace across most regions from late November through the end of the year. Financial conditions were stable. Labor markets were reported to be tight or tightening during the period. Pricing pressures intensified somewhat since the last report.
- Business Roundtable's Economic Outlook Index: Readings at 50 or above indicate an economic expansion & readings below 50 indicate an economic contraction. The Index rose from 69.6 in the third quarter to 74.2 in the fourth quarter. The Index remains below its historical average of 79.6.
- All US Senior Management's Outlook surveys are very positive regarding their confidence in the new administration to deliver favorable business outcomes.

China/Japan/Euro Area (all from World Bank's 2017 Global Economic Prospects)

- #2 largest portion of Global GDP: China: Growth is projected to moderate to 6.5% (2016 it was 6.7%) in 2017 & to 6.3% in 2018-19, reflecting soft external demand, heightened uncertainty about global trade prospects, &, critically, slower private investment. Macroeconomic policies are expected to continue supporting activity to help smooth the adjustment of output in overcapacity sectors. Rebalancing from industry to services, & from investment to consumption, is expected to moderate. Progress in reducing financial excesses will likely be modest, barring deep structural reforms with respect to state-owned enterprises & corporate restructuring. The baseline forecast envisages an easing in growth to 6.1% on average in 2017-19…This involves a gradual slowdown in China, which offsets a pickup of activity in the rest of the region. Risks to the baseline forecast have tilted further to the downside since June. They include heightened policy uncertainty in the US & Europe amid mounting protectionist pressures, financial market disruptions, & growth disappointments in major economies. An unexpected deceleration in major economies, especially in the US or weaker-than-expected global trade would dampen growth in the region, with sizable regional spillovers: a one-time 1% point unexpected decline in China's growth rate reduces growth by around 0.4% point after 2 years in Indonesia, Malaysia, & Thailand. The magnitude of the spillovers from China would be more pronounced if growth shocks are amplified by deteriorated confidence.
- #3/largest portion of Global GDP: Japan: Overall, growth projections for 2017 & 2018 have been revised up—to 0.9% & 0.8%, respectively—but remain constrained by the low growth potential implied by a shrinking & aging labor force & heightened policy uncertainty in major trading partners. This, in turn, contributes to diminished expectations, which negatively affect investment spending as well as fiscal & monetary policy effectiveness. Growth is projected to slow to 0.4% in 2019, mainly resulting from the planned consumption tax hike.
- #4/6/& 8th largest portion of Global GDP: Euro Area-Germany, France, & Italy: Despite ongoing monetary policy easing, headline & core inflation remain significantly below target. The longer this undershooting continues, the greater the risk of inflation expectations becoming de-anchored from policy objectives. Growth in the Euro Area in 2017 is projected to slow marginally to 1.5%, as the unwinding of the income boost associated with lower oil prices, increased policy uncertainties, & lingering banking sector concerns offset the benefit of more favorable financial conditions.

[1] World Bank's 2017 Global Economic Prospects: Weak Investment in Uncertain Times.

[2] "The pessimism over the effect of repatriated cash is rooted in a few reasons: Following the last deal, corporations used much of the money to reward shareholders with dividends and stock buybacks, and cash is hardly in short supply for companies. Though the amount being held overseas now tops the US total, companies are still holding $1.94T in cash domestically, the highest in two years, according to the latest Federal Reserve data. That's part of a larger story of trillions in money lying fallow around the country—zero-yielding money markets are holding $2.66T in investor cash, and banks are storing $2.15T in excess reserves at the Fed. In just those 4 categories, that's some $9.25T in available cash doing nothing. Even if the cash was brought home, it would be unlikely to lead to the surge in investment that many hope for. After all, most firms already have large reserves of domestic cash and face record-low borrowing costs."—CNBC.com, 9/20/16, "US companies are hoarding $2.5T in cash overseas."

[3] "Likeliest result is companies putting the money into share buybacks, echoing what happened in 2004 when the last overseas tax holiday was announced. 'It's a big financial deal but I'm not sure it makes a difference economically.' Congressional joint committee on taxation estimated the US company cash pile could amount to as much as $2.6T. Analysts, however, say most of this is actually assets held to support companies' foreign operations, with Goldman Sachs and Morgan Stanley putting the total overseas cash of the S&P500 companies closer to $1T. Speculation had it that the repatriation of overseas cash might prove another tailwind for the resurgent dollar, but the vast majority of it is already held in the US currency, as companies have been loath to expose themselves to the fluctuations of the FX market—only 5% not in dollar denomination already."—FT, 12/5/16 "Where will corporate America's overseas cash pile go?"

[4] "Amazon's first commercial drone delivery, 12/14/16, #techFT.

[5] "Google promises way more from Waymo, 12/13/16, #techFT.

[6] "What role for the workers in Trump's American factory revival? 11/22/16, FT.com.

[7] "Market grows for 'regtech,' or AI for regulation," 10/13/16, FT.com, and "SEC approves vast surveillance system for stock market," 11/16/16, FT.com.

[8] "Fintech start-ups put banks under pressure," 9/12/16, FT.com

[9] "Digitisation boosts profits, investment banks told," 9/14/16, FT.com

[10] "Wall Street's Trump Bonanza Won't Stop Job Cuts at Banks in '17," 12/29/16, Bloomberg.com

[11] "When it comes to you or a robot, who gets the job?" TheLadders.com.

[12] [12] "When it comes to you or a robot, who gets the job?" TheLadders.com.

[13] "Artificial intelligence disrupting the business of law," 10/5/16, FT.com

[14] "Technology Will Replace Many Doctors, Lawyers, and Other Professionals," 10/11/16, Harvard Business Review.

[15] "Patients in limbo as cyber attack shuts three NHS hospitals," 11/2/16, FT.com

[16] "Rise of the algos rattles commodity traders," 11/3/16, Bloomberg.

[17] "Music industry faces 'stream ripping' piracy threat," 9/12/16, Bloomberg.

[18] "Best of Money: hacking into your account is easier than you think," 11/4/16, FT.com.

[19] "'Internet of things' compounded Friday's hack of major websites," 10/21/16, The Washington Post.

[20] "Faster ACH payments strain bank anti-fraud systems," 12/29/16, AmericanBanker.com.

[21] "AT&T's Talent Overhaul, 10/16, Harvard Business Review.

[22] "Die Another Day: What Leaders Can Do About the Shrinking Life Expectancy of Corporations," 7/2/15, Martin Reeves and Lisanne Pueschel, Boston Consulting Group.

[23] "Topsy Turvy Turnover," 7/11/16, Kathy Graham.

[24] "Jeremy Bailenson, Professor in Stanford's Communication Department with a PhD in Cognitive Psychology who has been studying VR's effects for two decades says that the speed of change has surprised even him. Less than two years ago, his lab was running experiments with a now clumsy-looking $40k headset that hung about 5 inches off his face. Now his lab is using versions of Facebook's comparatively svelte Oculus Rift, soon set to retail for $600."Virtual Reality," 3/16, Stanford University.

[25] https://vimeo.com/158261295. This video is UpWorks explaining its freelance global network that's high tech in action & a glimpse of the future of recruiting.

[26] The US government issues Treasury securities to fund the deficit between the amount of money that it takes in through taxes and other sources, and the amount of money that it spends on defense, welfare programs and the interest it pays on its current debt. For 2016, the Congressional Budget Office (CBO) projects that the US government will take in $3.4T in revenue, while having outlays of $3.9T, leading to a budget deficit of around $500B. The previous deficits combined with the $500B deficit for 2016 will put the government's total debt at around $19.4T. US entities (including banks, mutual funds, state and local governments, the Federal Reserve, and Social Security) hold about 68% of this debt, with

foreign countries holding the remainder. The countries holding the most (from most to least of the top 5) are:
1. China with $1.24T in Treasury holdings, down 2.4% from 2015, making it an owner of 6.4% of the total US government debt and 19.8% as a percentage of total foreign holdings; is 2nd largest GDP economy in the world.
2. Japan with $1.15T in Treasury holdings, down 4.1% from 2015, making it an owner of 5.9% of the total US government debt and 18.3% as a percentage of total foreign holdings; is 3rd largest GDP economy in the world.
3. Ireland with $271B in Treasury holdings, up 24.3% from 2015, making it an owner of 1.4% of the total US government debt and 4.3% as a percentage of total foreign holdings…Ireland is not even one of the top 10 GDP economies in world.
4. Cayman Islands with $269B in Treasury holdings, up 21.8% from 2015, making it an owner of 1.4% of the total US government debt and 4.3% as a percentage of total foreign holdings; it's a British island known for being a tax haven.
5. Brazil with $252B in Treasury holdings, down 1.8% from 2015, making it an owner of 1.3% of the total US government debt and 4.0% as a percentage of total foreign holdings; is 9th largest GDP economy in the world.—Investopedia.com, 9/6/16, "5 Countries That Own the Most US Debt."

[27] "Donald Trump says he can "make a deal" on America's debt." It sounds shrewd, until you think about who would get hurt under this scenario. Who exactly owns the $19T+ of US debt? The top holder by far is US citizens and American entities, such as state and local governments, pension funds, mutual funds, and the Federal Reserve. Together they own the vast majority—67.5%—of the debt…Trump's proposal stunned the financial world. The US government is the world's safety net. Lenders expect the US Treasury to always make good on its payments. The global financial system is built on the notion that US Treasuries are absolutely safe assets. If he were to put a crack in that foundation, the global financial system would crater and we would have a global economic recession. Renegotiating debt terms is a common practice among companies in financial trouble. Creditors are willing to accept lower payments because that's preferable to getting nothing. However, the US government isn't a "junk bond" company…Of the $12.9T chunk of debt owned by Americans, $5.3T is held by government trust funds such as Social Security, $5.1T is held by individuals, pension funds, and state and local governments and the remaining $.5T is held by the Federal Reserve. A lot of people who own the debt are in the US. Why would I want to get paid less on my debt than when I bought it?"—money.cnn.com, 5/10/16, "Who Owns America's Debt?"

[28] US sovereign debt is one of the safest assets in finance.
1. China--$1.244T, the 2nd largest GDP economy in the world.
2. Japan--$1.137T, the 3rd largest GDP economy in the world.
3. Cayman Islands--$265B, part of UK, the 5th largest GDP economy in the world.
4. Ireland--$264.3B, not even in the top 20 largest GDP economy in the world.
5. Brazil--$246.4B, the 9th largest GDP economy in the world.
6. Switzerland--$230B, the 19th largest GDP economy in the world.
7. UK--$227.6B, the 5th largest GDP economy in the world.
8. Luxembourg--$221.3B, not even in the top 20 largest GDP economy in the world.
9. Hong Kong--$200.3B, part of China, the 2nd largest GDP economy in the world.
10. Taiwan--$182.3B, not even in the top 20 largest GDP economy in the world.
11. Belgium--$153.8B, not even in the top 20 largest GDP economy in the world.
12. India--$118.9B, the 7th largest GDP economy in the world.
13. Saudi Arabia--$116.8B, the 20th largest GDP economy in the world.
14. Singapore--$112.7B, not even in the top 20 largest GDP economy in the world.
15. Germany--$90.1B, the 4th largest GDP economy in the world.
16. **Russia--$86B, the 11th largest GDP economy in the world.**
17. South Korea--$84.1B, the 11th largest GDP economy in the world.—BusinessInsider.com, 5/17/16, "Here are the 17 countries that hold the most US debt."