INTERNATIONAL MONETARY FUND

IMF Country Report No. 18/207

UNITED STATES

July 2018

2018 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR UNITED STATES

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2018 Article IV consultation with the United States, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its June 29, 2018 consideration of the staff report that concluded the Article IV consultation with United States.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on June 29, 2018, following discussions that ended on June 7, 2018, with the officials of United States on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 18, 2018.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for United States.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: http://www.imf.org
Price: $18.00 per printed copy

International Monetary Fund
Washington, D.C.

INTERNATIONAL MONETARY FUND

COM COMMUNICATIONS DEPARTMENT

Press Release No. 18/274
FOR IMMEDIATE RELEASE
July 3, 2018

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes Article IV Consultation with the United States

On June 29, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with the United States.[1]

The near-term outlook for the U.S. economy is one of strong growth and job creation. Unemployment is near levels not seen in 50 years, and growth is set to accelerate, aided by a fiscal stimulus, a recovery of private investment, and supportive financial conditions. These positive outturns have supported, and been reinforced by, a favorable external environment. The balance of evidence suggests that the U.S. economy is beyond full employment.

A slow but steady rise in wage and price inflation is expected as labor and product markets tighten. Core PCE inflation is expected to rise modestly above 2 percent by mid-year. Wages have been growing broadly in line with (relatively weak) labor productivity growth, leaving unit labor costs virtually unchanged over the past 2 years. In the next several months, wages and unit labor costs are anticipated to increase at a modest pace.

Despite good near-term prospects, a number of vulnerabilities are being built-up. The planned expansion in the federal deficit at this stage of the cycle could trigger a faster-than-expected rise in inflation. That would be accompanied by a more rapid rise in interest rates that could increase market volatility both in the U.S. and abroad. There is a risk of a marked reversal of capital flows, particularly from emerging markets with weaker macroeconomic fundamentals. The net effect of U.S. budget and tax policy choices will exacerbate an already unsustainable upward dynamic in the public debt and leave few budget resources available to invest in a range of urgently needed supply-side reforms, including infrastructure spending. It will also contribute to a rise in global imbalances. These risks are added to by recent actions by the U.S. to impose tariffs on imports.

The consultation focused on the policies needed to address these risks, rebuild fiscal space,

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

preserve financial stability, support low- and middle-income households, incentivize work, and raise medium-term living standards.

Executive Board Assessment[2]

Directors welcomed the strong performance of the U.S. economy, with accelerating growth, low unemployment, and muted inflation. They also welcomed the favorable near-term outlook and the prospect of marking the longest economic expansion in its recorded history. At the same time, Directors observed heightened policy uncertainty and medium-term vulnerabilities, including rising public debt, trade tensions, and income inequality. They stressed that developments and policy actions in the United States have significant implications for the rest of the world, and encouraged the authorities to take that consideration into account in their policy decisions.

Directors recognized the objectives of the fiscal strategy and tax reform, with its many positive features, in supporting growth and promoting structural changes to unleash the economic potential. They observed that, at the current stage of the business cycle, the expansionary fiscal policy stance, while boosting U.S. and global output in the near term, could increase risks and uncertainties in the medium term. Specifically, Directors cautioned that the procyclicality of the budget and tax policy plans would adversely affect the fiscal deficit, debt sustainability, and global imbalances. They encouraged the authorities to rebalance fiscal policy, increase the revenue-to-GDP ratio through a greater reliance on indirect taxes, and prioritize infrastructure spending. Directors also saw scope for targeting personal income tax relief at lower-income households, and improving the compliance of tax provisions with the international obligations.

Directors commended the Federal Reserve for pursuing monetary policy normalization in a gradual, data-dependent, and well-communicated manner. They stressed the importance of continued adherence to these principles, while being mindful of potential global spillovers as monetary policy tightens. Directors concurred that, given the sizable fiscal stimulus, achieving the dual mandate of maximum employment and price stability would likely require a faster pace of policy rate increases. They pointed to an inflation surprise as an important risk that, if realized, could create volatility in financial markets, with negative global consequences.

Directors raised significant concerns over recent trade policy proposals that could have damaging effects beyond the U.S. economy, trigger retaliatory responses, and undermine the open, fair, rules-based multilateral trading system. Directors urged the authorities to work constructively together with their trading partners to reduce trade barriers and resolve trade and investment disagreements without resorting to harmful unilateral actions.

[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

Directors noted medium-term risks to financial stability, including those related to high equity market valuations, rising leverage, weakened underwriting standards, and cyber risks. Managing these risks would require high-quality and independent supervision. Directors stressed the need to preserve the current risk-based approach to regulation, supervision, and resolution; strengthen the oversight of nonbank financial institutions; and remain committed to agreed international standards. They looked forward to further progress in implementing the remaining recommendations of the 2015 FSAP.

United States: Selected Economic Indicators 1/

(percentage change from previous period, unless otherwise indicated)

		Projections					
	2017	2018	2019	2020	2021	2022	2023
National production and income							
Real GDP	2.3	2.9	2.7	1.9	1.7	1.5	1.4
Net exports 1/	-0.2	-0.4	-0.6	-0.5	0.0	-0.1	0.0
Total domestic demand	2.4	3.3	3.2	2.3	1.7	1.6	1.3
Private final consumption	2.8	2.8	2.5	1.9	2.1	2.1	1.9
Public consumption expenditure	0.1	1.3	3.0	1.4	0.1	-0.3	-0.6
Gross fixed domestic investment	3.4	5.7	6.0	4.3	1.3	0.8	0.7
Private fixed investment	4.0	6.3	6.9	4.6	1.0	0.4	0.2
Public fixed investment	0.1	2.7	1.6	2.6	2.8	3.2	3.1
Change in private inventories 1/	-0.1	0.1	0.0	0.1	0.0	0.0	0.0
Nominal GDP	4.1	5.4	5.6	4.0	3.8	3.7	3.5
Personal saving rate (% of disposable income)	3.4	2.5	2.5	2.7	3.0	3.3	3.7
Private investment rate (% of GDP)	16.6	17.2	17.7	18.1	18.0	17.8	17.6
Unemployment and potential output							
Unemployment rate	4.4	3.8	3.5	3.4	3.6	3.6	3.8
Labor force participation rate	62.8	62.8	62.6	62.4	62.2	62.0	61.8
Potential GDP	1.8	2.0	2.0	1.9	1.8	1.7	1.7
Output gap (% of potential GDP)	0.3	1.2	1.9	1.9	1.8	1.5	1.2
Inflation							
CPI inflation (q4/q4)	2.1	3.2	2.7	2.3	2.2	2.2	2.3
Core CPI Inflation (q4/q4)	1.7	2.4	2.6	2.5	2.3	2.3	2.3
PCE Inflation (q4/q4)	1.7	2.8	2.4	2.0	1.9	1.9	2.0
Core PCE Inflation (q4/q4)	1.5	2.0	2.3	2.2	2.0	2.0	2.0
GDP deflator	1.8	2.4	2.8	2.0	2.1	2.2	2.1
Government finances							
Federal government							
Federal balance (% of GDP) 2/	-3.5	-4.1	-4.6	-4.5	-4.7	-5.0	-4.8
Federal debt held by the public (% of GDP)	76.5	76.9	77.2	78.5	80.5	82.5	84.6
General government							
Primary structural balance (% of potential GDP)	-2.7	-3.5	-3.8	-3.3	-3.2	-3.0	-2.3
General government budget balance (% of GDP) 2/	-4.5	-5.3	-5.5	-5.3	-5.4	-5.4	-4.9
General government gross debt (% of GDP)	105.6	106.0	106.5	108.1	109.9	111.6	113.1
Interest rates (percent; period average)							
Fed funds rate	1.0	1.9	3.0	3.6	3.2	2.9	2.9
Three-month Treasury bill rate	0.9	2.0	3.0	3.4	3.0	2.7	2.7
Ten-year government bond rate	2.3	3.0	3.5	3.8	3.7	3.6	3.6
Balance of payments							
Current account balance (% of GDP)	-2.4	-3.0	-3.2	-3.6	-3.4	-3.2	-3.0
Merchandise trade balance (% of GDP)	-4.2	-4.6	-4.7	-5.2	-5.1	-5.1	-5.0
Export volume (NIPA basis, goods)	4.5	5.2	2.7	2.1	3.5	2.9	4.4
Import volume (NIPA basis, goods)	4.3	7.2	7.0	5.9	3.3	3.6	2.9
Net international investment position (% of GDP)	-40.5	-41.4	-42.5	-44.4	-46.2	-47.8	-49.2
Saving and investment (% of GDP)							
Gross national saving	17.5	17.3	17.6	17.6	17.7	17.8	17.8
General government	-1.6	-3.6	-4.1	-4.0	-4.0	-3.7	-3.2
Private	19.0	21.0	21.7	21.6	21.7	21.5	21.1
Personal	2.5	1.9	1.8	2.0	2.2	2.4	2.8
Business	16.5	19.1	19.9	19.6	19.5	19.1	18.3
Gross domestic investment	19.8	20.4	20.8	21.2	21.1	21.0	20.9
Private	16.6	17.2	17.7	18.1	18.0	17.8	17.6
Public	3.2	3.2	3.1	3.1	3.1	3.2	3.2

Sources: BEA; BLS; FRB; Haver Analytics; and IMF staff estimates.
1/ Contribution to real GDP growth, percentage points.
2/ Includes staff's adjustments for one-off items, including costs of financial sector support.

INTERNATIONAL MONETARY FUND

UNITED STATES

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION

June 14, 2018

KEY ISSUES

The near-term outlook. Unemployment is low, inflation is well contained, and growth is set to accelerate. During the course of this administration, the economy is expected to enter the longest expansion in recorded U.S. history.

Fiscal policy. The combination of revenue losses from the Tax Cuts and Jobs Act and the approved increase in spending will create a significant increase in the fiscal deficit in the next few years. This will add to an already-unsustainable public debt, contribute to a rise in global imbalances, and increase risks of future recession, with possibly negative outward spillovers. Further, the expansion in the deficit leaves few budget resources available to invest in a range of urgently needed supply-side reforms that could boost medium-term growth and raise living standards.

Monetary policy. Given the planned fiscal stimulus, the Federal Reserve will need to raise policy rates at a faster pace to achieve its dual mandate. In executing its monetary policy decisions, the Fed's continued adherence to the principles of data dependence and clear communication will be vital.

Tax Policies. The Tax Cuts and Jobs Act contains many positive changes but these come with a high budgetary price tag. Many of the objectives of the Tax Cuts and Jobs Act could be better achieved by replacing lost revenues with increases in indirect taxes, targeting personal income tax relief solely to those earning close to or below the median income, imposing a higher tax rate on unrepatriated profits, reformulating the business tax as a cashflow tax, and redesigning the international provisions to impose a minimum tax on low-tax jurisdictions and to avoid giving more favorable treatment to exports than to imports and domestic sales.

Trade. The U.S should work constructively with its trading partners to reduce trade barriers and to resolve trade and investment disagreements without resorting to the imposition of tariff and non-tariff barriers.

Financial Regulations. Important gains have been made in strengthening the financial oversight structure since the global financial crisis and proposals to simplify regulations for smaller financial institutions represent further improvements. Future changes to financial oversight should ensure that the current risk-based approach to regulation, supervision and resolution is preserved.

Outward Spillovers. The net effect of U.S. policy choices—related to the budget and tax policy—will provide a near-term boost to trading partner output. However, those same policies as well as uncertainties about the trade regime have the potential to both increase the range and size of future risks and uncertainties faced by other countries and are likely to add to global imbalances. Insofar as the chosen policy mix prompts a tightening of global financial conditions, countries with high levels of U.S. dollar debt and/or a significant rollover need are likely to come under pressure. There is also a risk of a marked reversal of capital flows, particularly from emerging markets with weaker macroeconomic fundamentals, which could be disruptive. We are already starting to see symptoms of these negative spillover effects in some countries. These risks are added to by recent actions by the U.S. to impose tariffs on imports.

Approved By
Nigel Chalk (WHD) and Tam Bayoumi (SPR)

Discussions took place in New York (April 25-27) and in Washington D.C. (May 1-17). Concluding meetings with Chairman Powell and Secretary Mnuchin were held on June 6 and June 7, respectively. The team comprised Nigel Chalk (Head), Yasser Abdih, Ali Alichi, Emanuel Kopp, Daniel Leigh, Suchanan Tambunlertchai (all WHD) and Russell Green and Céline Rochon (SPR). Patricia Delgado-Pino, Javier Ochoa, and Peter Williams provided valuable assistance.

CONTENTS

FIGURES

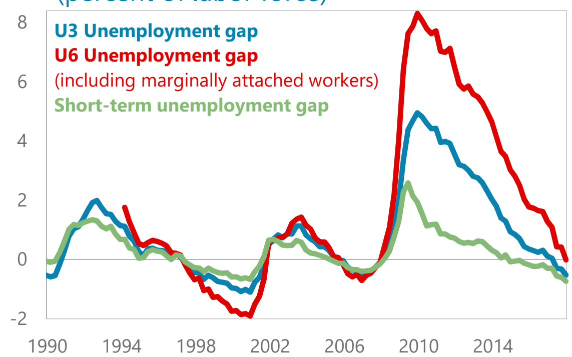
TABLES

ANNEXES

SOLID GROWTH, RISING INFLATION, FULL EMPLOYMENT

1. The near-term outlook for U.S. economy is one of strong growth and job creation. Unemployment is already near levels not seen since the late 1960s and growth is set to accelerate, aided by a near-term fiscal stimulus, a welcome recovery of private investment, and supportive financial conditions. The balance of evidence suggests that the U.S. economy is beyond full employment. The near-term risks to this outlook are balanced but the risks after the next several quarters are skewed to the downside. Staff continue to estimate potential growth will decline over the medium-term to around 1¾ percent at a 3–4 year horizon as demographic pressures lessen labor force growth, productivity recovers toward long-run historical averages, and the boost to investment from the tax reform begins to wane.

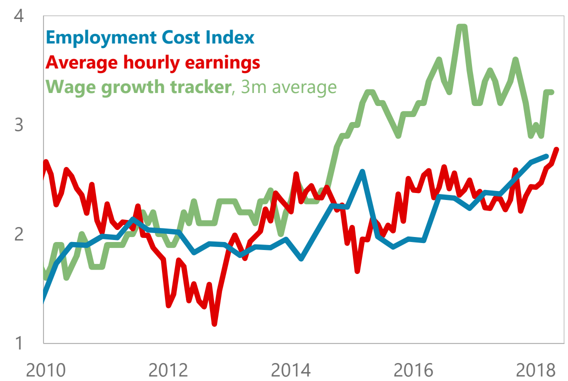
Measures of Labor Market Slack
(percent of labor force)



Source: BLS and IMF staff estimates.

2. After spending much of the past decade below 2 percent, core PCE inflation is expected to soon rise modestly above that level. So far, wages have been growing broadly in line with (relatively weak) labor productivity growth, leaving unit labor costs virtually unchanged over the past 2 years. In the next several months, as slack is further diminished, wages and unit labor costs are anticipated to increase at a modest pace (Box 1). Labor force participation is expected to be broadly stable over the near-term as cyclical forces offset the downward pull of demographics. Risks to the inflation outlook are judged to be broadly balanced.

Wage Growth (y/y in percent)



Source: Haver Analytics, Federal Reserve Bank of Atlanta, BLS

3. A robust economy, muted inflation, and high levels of consumer and business confidence have supported a run-up in asset prices. The capital position of U.S. banks is strong and asset quality appears to be generally good. Credit remains available to both households and corporations and the cost of borrowing is relatively low (Figure 1). However, equity market valuations are rich, margin debt and various measures of leverage are rising (with increased use of financial leverage to boost returns), and the growth of passively managed investment products has the potential to amplify the impact of asset price swings on the financial system. There has been some deterioration of credit quality in auto and credit card lending as well as for agricultural loans (although these assets represent a relatively small share of the market and are unlikely to give rise to a systemic vulnerability). In addition, underwriting standards for corporate credit, particularly for

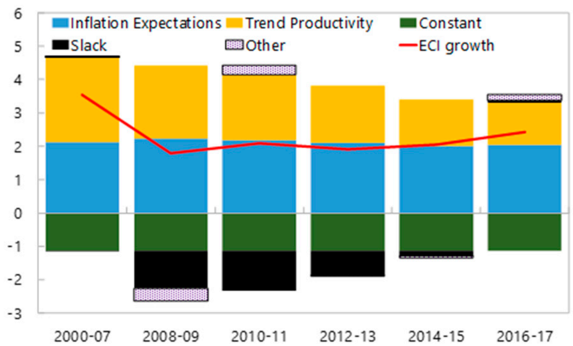
Box 1. Determinants of U.S. Wage Inflation[1]

U.S. wage growth has been subdued since the end of the great recession, despite robust job growth and a steady fall in unemployment. Estimates of a wage Phillips curve suggest that this weak wage growth is mostly a product of low labor productivity growth. The model fits the data well and its parameters are robust to the use of different measures of labor market slack and show no sign of structural instability over time.

The model also allows a decomposition of the drivers behind compensation growth and shows that, throughout the current recovery, there *has* been diminishing downward pressure on compensation growth as labor market slack has diminished. However, this has been offset by a similarly-sized and contemporaneous decline in labor productivity growth. Additional factors that have kept the growth rate of real compensation below that of labor productivity include technological progress—linked to the automation of routine tasks—trade globalization, and falling unionization rates.[2]

Decomposing Employment Cost Index (ECI) Growth

(percentage points)

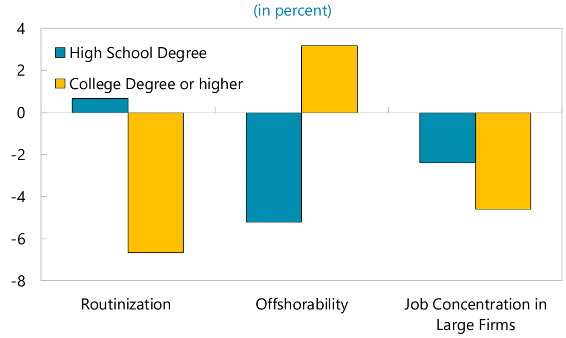


Sources: Authors' Estimation

These themes are broadly reinforced by results from a micro-econometric model of wage determination, that uses household observations from the Current Population Survey. Controlling for various individual characteristics (including education, gender, and profession), an augmented Mincer-type model reveals that a higher local rate of unemployment puts downward pressure on wages (although this relationship appears to have weakened post great recession). The household level regressions also show that structural changes related to technology, globalization, and market concentration are also relevant. College-educated workers in routinizable jobs face greater downward pressure on their wages while less-educated workers have experienced the most downward wage pressures when they are in jobs that are easiest to offshore. Working in industries that are more concentrated weighs on wages for both college and non-college educated workers.[3]

Wage Impact by Skill Level of Structural Factors

(in percent)



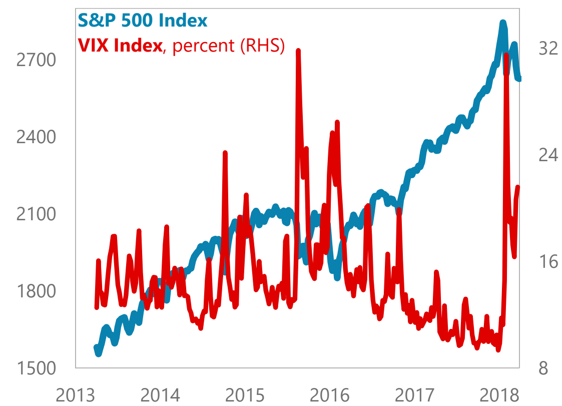
Sources: Authors' Estimates

[1] See Y. Abdih and S. Danninger, 2018 "Understanding U.S. Wage Growth", IMF Working Paper, WP/18/138.
[2] See Y. Abdih and S. Danninger, 2017 "What Explains the Decline in the U.S. Labor Share of Income? An Analysis of State and Industry Level Data," IMF Working Paper WP/17/167.
[3] The impact on wages show how much wages fall as a worker goes from the median routinizable and offshorable occupation to the 66th percentile or from a 10-percentage point movement of workers to large firms within the same industry.

Figure 1. Financial System Indicators

Equity markets have fluctuated close to record highs with occasional spikes in volatility.

Stock Market Gains and Volatility

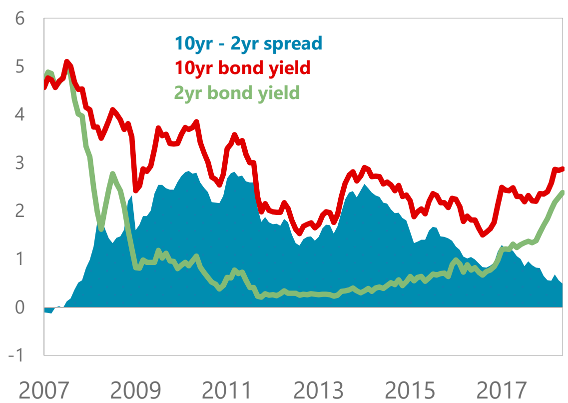


Equity market valuations are rich.

Cylicallly Adjusted Price-to-Earnings Ratio

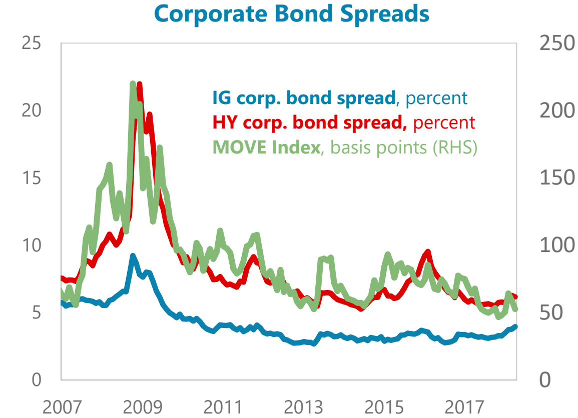
Short-term interest rates have risen and the yield curve has flattened.

Treasury Yields and Spread (Percent)



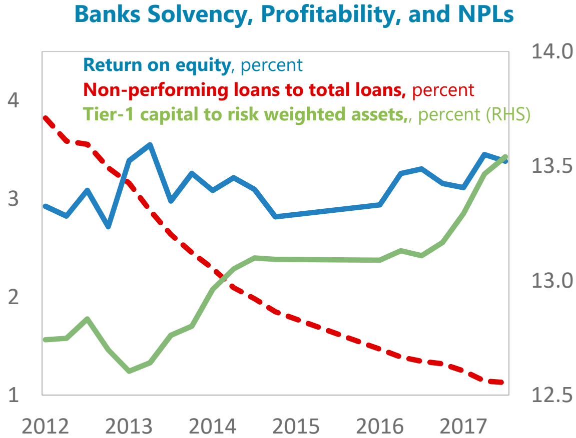
Corporate refinancing costs and bond market volatility are both low.

Corporate Bond Spreads



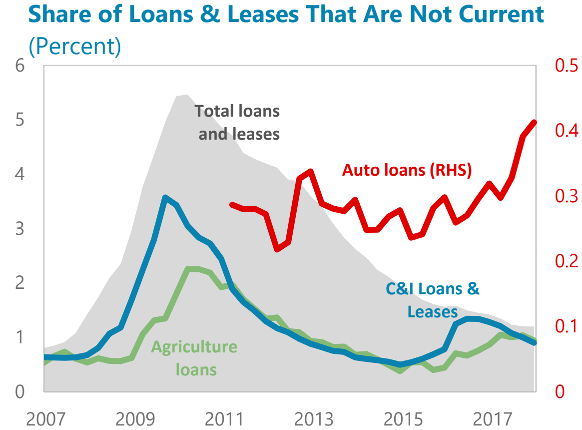
Banks capital buffers are healthy and NPLs are low…

Banks Solvency, Profitability, and NPLs



…although credit quality is weakening in some segments.

Share of Loans & Leases That Are Not Current



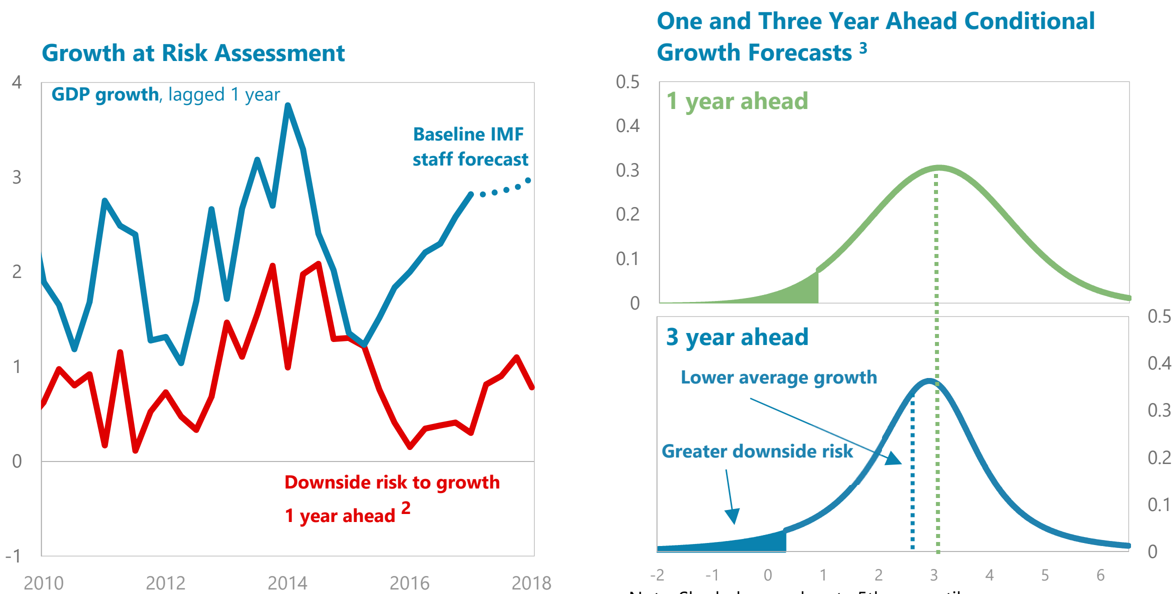
Sources: Bank of America Merrill Lynch, Bloomberg, CBOE, Federal Reserve Board, Haver Analytics, IMF, Robert Shiller, S&P Dow Jones Indices LLC..

higher risk borrowers, has weakened. Strains in the student loan market are becoming apparent which could create fiscal costs or knock-on effects to other credit markets. Finally, cyber risks to the financial system—linked to the safeguarding of systems and operations as well as the protection of customer data—are an ongoing concern. This overall assessment is borne out by the growth-at-risk metric of financial stability which finds near-term financial stability risks are broadly similar to those at the time of the last Article IV but medium-term risks are elevated (Figure 2).

Figure 2. Financial Stability and Growth-At-Risk[1]

Tail risks are broadly unchanged from the time of the last Article IV Consultation

Risks are more elevated at a medium-term horizon



Note: Shaded areas denote 5th percentile.

[1] Source: Methodology is based on *IMF Global Financial Stability Report*, October 2017, Chapter 3; Adrian et al (2018), "Vulnerable Growth," *American Economic Review* (forthcoming) but applied specifically to U.S. financial conditions indices.

[2] The lower 5 percent quantile of the conditional forecast density of output growth represents the size of the downside risk to growth as a function of domestic financial conditions.

[3] The conditional forecast densities are for time horizons of one and three years based on the last available data.

Authorities' Views

4. The administration disagreed with the growth outlook that formed the basis of staff's macroeconomic framework. The IMF's forecasts were regarded as unduly pessimistic, particularly when it came to the prospects for long-term growth. The administration's framework is based on average growth of 3 percent over 2018–28. This additional growth, relative to staff forecasts, was a product of a higher no policy change baseline that would lead long-run growth to reach around 2.2

percent. The administration's outlook also incorporates long-run growth effects arising from a US$1.5 trillion investment in infrastructure (+0.2 percent), the impact of the overhaul of the U.S. tax system (+0.3 percent), higher labor force participation, and a continuing process of de-regulation that has already eliminated 22 existing regulations for each new one that was created (+0.2 percent).

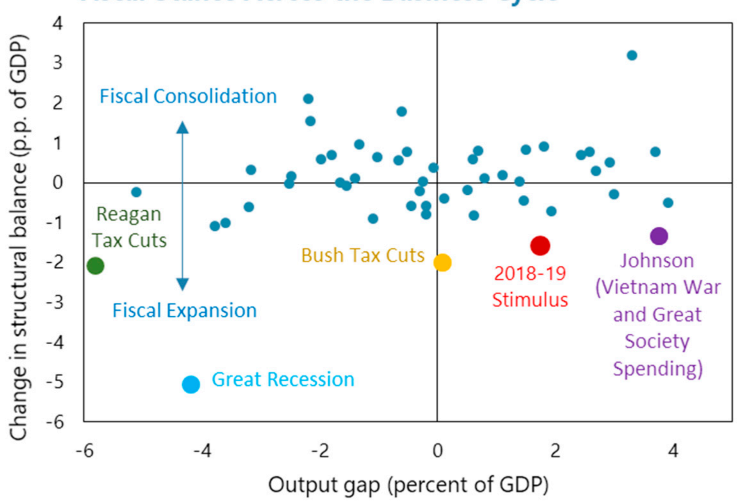
THE MACROECONOMIC POLICY MIX

A. Fiscal Policies

5. With this strong cyclical position as backdrop, the U.S. has cut taxes and raised both defense and non-defense discretionary spending. The resulting demand stimulus is expected to raise output, cumulatively, by 1½ percent by 2020, pushing the unemployment rate below 3½ percent. The tax changes are expected to have modestly positive supply-side effects, largely by incentivizing an increase in the capital stock and, in doing so, raising the level of potential GDP (by a cumulative 0.3 percent by 2020). Potential growth is expected to return to its longer-term trend (of 1¾ percent) by 2021. The effects of ongoing deregulation could further raise the level of real GDP by a modest amount (although it is difficult to quantify such effects based on the available research and evidence).

6. The combined effect of the administration's tax and spending policies will cause the federal government deficit to exceed 4.5 percent of GDP by 2019. This is nearly double what the deficit was just 3 years ago. Such a strongly procyclical fiscal policy is quite rare in the U.S. context and has not been seen since the Johnson administration in the 1960s.

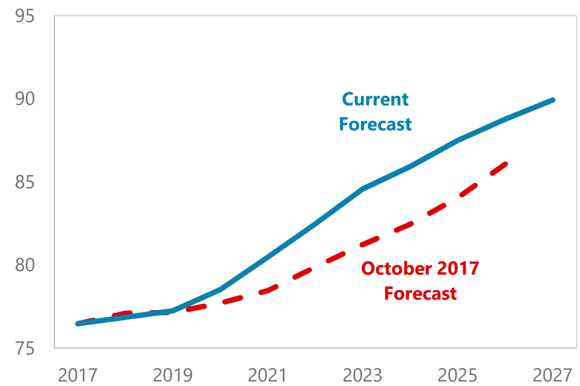
Fiscal Stance Across the Business Cycle



7. Such a procyclical fiscal policy will elevate the risks to the U.S. and global economy. The net effect of this fiscal path will be to provide a near-term boost to the U.S. and to many of its trading partners. However, the shift in the US policy mix and uncertainties about the trade regime increases the range and size of future risks, both for the U.S. and for the global economy. These risks include:

- ***Higher Public Debt***. The increase in the federal deficit will exacerbate an already unsustainable upward dynamic in the public debt-to-GDP ratio. Even with the planned, modest fiscal consolidation that is scheduled to start in 2020, the federal debt will continue to climb, exceeding 90 percent of annual GDP by 2024 (Annex III).

Federal Debt (percent of GDP, fiscal year)

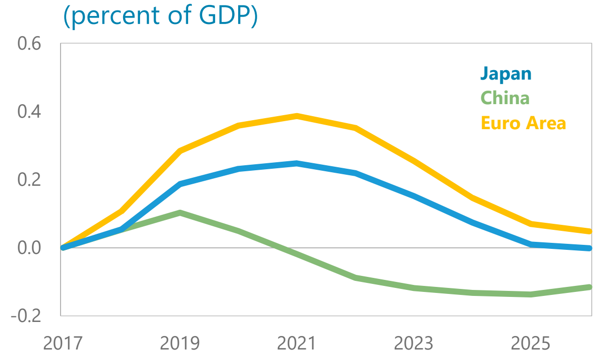


Source: IMF Staff calculations

- ***A Greater Risk of an Inflation Surprise***. As discussed above, the tax reform is expected to have only modest effects on potential output. As such, the planned, expansionary fiscal policy raises the risk of a faster-than-expected rise in inflation as capacity constraints become more binding and the economy pushes further through full employment. Such a rise in inflationary pressures would lead the Federal Reserve to move at a faster pace than is currently priced in by markets, potentially creating volatility and disruptions in U.S. asset markets, tightening financial conditions, decompressing term and other risk premia, and straining leveraged corporates and households (Boxes 2 and 3).

- ***International Spillover Risks***. The boost to U.S. demand from expansionary fiscal policies will generally support near-term growth in a range of countries. However, the shift in the U.S. policy mix creates important adverse risks for non-U.S. corporates, households, and sovereigns (especially those that have borrowed heavily in U.S. dollars and/or have significant rollover needs). It could also precipitate a marked reversal of capital flows, particularly out of some emerging markets with weaker macroeconomic fundamentals, which has the potential to add to upward pressure on the U.S. dollar and to worsen global imbalances. We are already starting to see symptoms of these spillover effects in some countries.

GDP Spillovers of Fiscal Reforms,
(percent of GDP)



Source: IMF staff estimates. Differences from baseline due to the Tax Cuts and Jobs Act and the 2018 appropriations bill.

- ***The Risk of Future Recession***. Current policies build in a gradual fiscal consolidation starting in 2020, at a time when the monetary tightening cycle is expected to be at its peak. Staff forecasts assume a gradual slowdown during this period with growth leveling off at around 1½ percent, modestly below the economy's potential growth rate. However, such a gentle convergence of output to potential from above would be historically unusual and this forecast could prove overly optimistic. The output gap could close more abruptly, through a policy-induced recession, with negative spillovers for the global economy.

- ***Increased Global Imbalances***. The U.S. external position in 2017 was moderately weaker than implied by medium-term fundamentals and desirable policies and the U.S. dollar is judged to be moderately overvalued (Annex II). However, especially with the economy already at full employment, the fiscal boost to demand in the U.S. is likely to translate into higher import growth, an increase in the current account deficit (to around 3½ percent of GDP by 2019–20), upward pressure on the dollar, and a worsening of the international investment position. From the saving-investment perspective, the U.S. is likely to experience lower household saving, higher investment, and a weaker fiscal position (Box 4). The higher U.S. current account deficit is expected to be matched by growing current account surpluses in other systemic economies (notably Germany, China, and Japan). As a result, global imbalances are expected to rise, with the various attendant risks that such imbalances convey (including possibly catalyzing public support for increased protectionism).

Authorities' Views

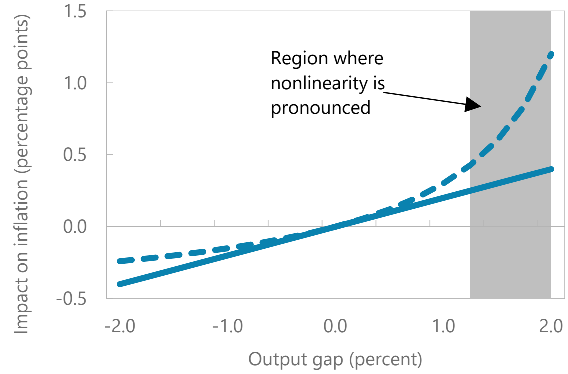
8. The stronger growth path envisaged by the administration will have an important effect on the fiscal deficit, lowering it by an average of around 0.25 percent of GDP each year over the next 10 years. In addition, the administration intends to significantly reduce federal non-defense outlays while providing an additional US$200 billion to finance infrastructure spending. Around one-half of these expenditure savings would come from a reorganization of the federal government. The remainder would accrue mostly from the repeal of the Affordable Care Act, reforms to the welfare system and student loans, reductions in wasteful Medicare spending (including for prescription drugs), and a phase-down of defense spending currently being undertaken through Overseas Contingency Operations funding. These spending cuts, over the ten-year budget horizon, would result in a 44 percent real reduction in discretionary, nondefense spending. As a result, mandatory spending programs would rise from 68 to 78 percent of noninterest federal spending. On balance, the administration's planned spending reductions, combined with faster growth, would reduce the deficit to 1.1 percent of GDP by 2028 and lead the federal debt to peak at 82 percent of GDP in 2022, slowly declining thereafter. No negative growth effects are anticipated from those various reductions in federal programs. Rather, this contractionary fiscal policy is fully consistent with an expansionary growth outlook: jobs would be created in the private sector at a pace that more-than-offsets the economic drag from reductions in inefficient federal spending.

Box 2. Impact of a Nonlinear Phillips Curve[1]

One of the main risks facing the U.S. economy is that inflation could accelerate faster than currently expected. Indeed, the relationship between inflation and economic slack may be nonlinear, steepening as the economy pushes further through full employment.

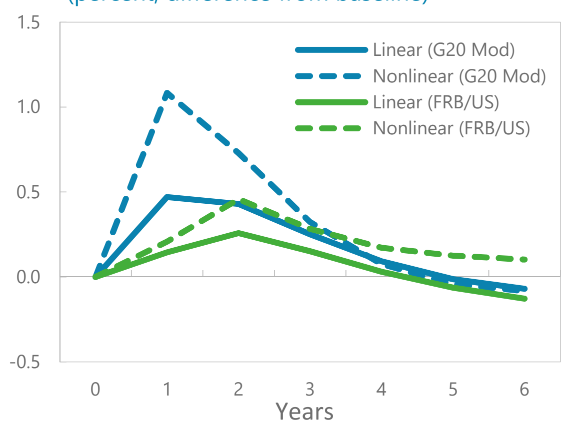
Simulations of the Fed's FRB/US and the Fund's G20 MOD models illustrate how such a steepening (see chart) could affect policy and inflation outcomes. The simluations assume a demand impulse of 1.5 percent—comparable to the impulse from the 2018–19 fiscal expansion. In FRB/US, the central bank is assumed to follow an optimal control policy while in G20 MOD the central bank reacts according to a forward-looking Taylor rule.

Phillips Curve

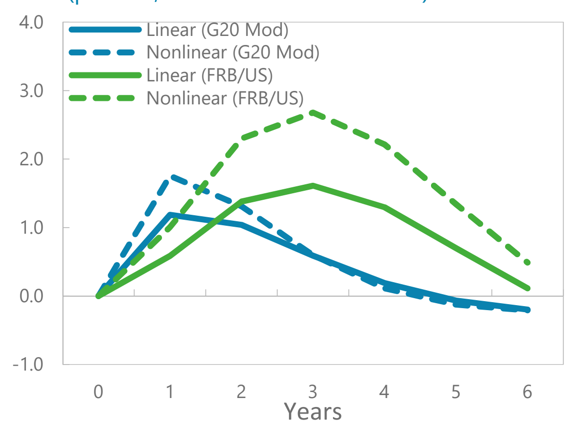


The results for the two models are qualitatively similar (charts below show the different paths of inflation and policy rates for the linear and nonlinear cases for the two models). Policy rates rise faster and higher when the trade-off between slack and inflation is characterized by a nonlinear Phillips Curve. This tightens U.S. and global financial conditions relative to the case of a linear Phillips Curve. In the nonlinear case, not surprisingly, despite higher policy rates the inflation path is higher than in the linear case.

Core Inflation
(percent, difference from baseline)



Fed Funds Rate
(percent, difference from baseline)



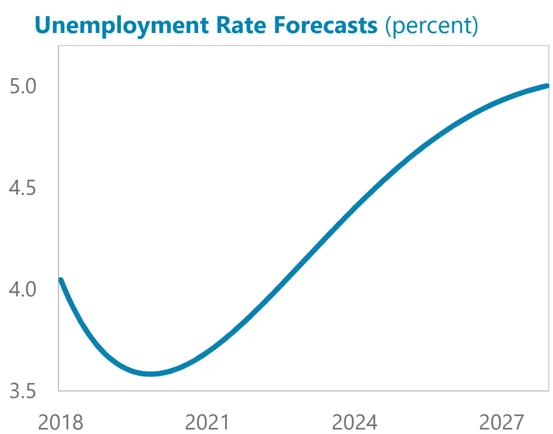
[1] Authored by Susanna Mursula (RES), and Peter Williams (WHD.)

Box 3. The Term Structure of Interest Rates and Forecasting Structural Variables[1]

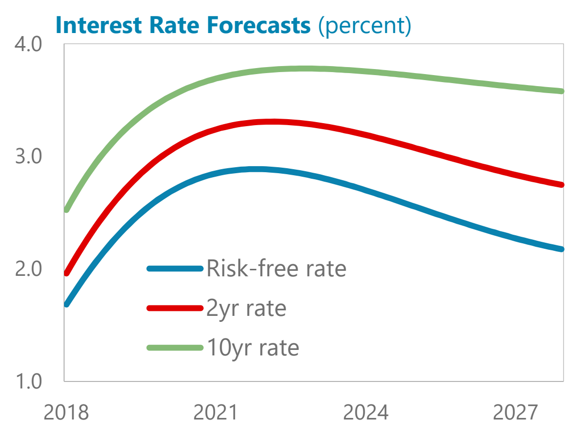
In recent years, term premia have been very low and sometimes even negative. This has been due to a combination of a healthy macroeconomic environment of low inflation, above trend growth, and, potentially, the Federal Reserve's quantitative easing program.

A macro-financial term structure model was estimated, which exploits cross-sectional and temporal information embedded in the yield curve, as well as cyclical economic variables. Expectations about structural factors (e.g., long run inflation expectations or the equilibrium real interest rate) are revised only slowly even after large shocks. As a result, most of the variation in bond yields is explained by changes in term premia, and to a lesser extent economic conditions, rather than shifting long-run expectations.

This term structure model can be used to derive market forecasts of the unemployment rate and interest rates. Based on the current information embedded in the yield curve, the unemployment rate is projected to drop further, to around 3½ percent before trending back to its long-term natural level. The policy rate is expected to modestly overshoot its long-run expected value and long-term rates are expected to rise to around 3.7 percent.



Note: based on the informatrion set at the end of December.

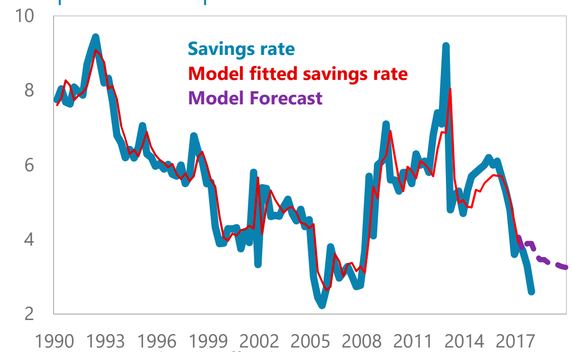


[1] See E. Kopp and P.D. Williams, 2018 "A Macroeconomic Approach to the Term Premium," IMF Working Paper, WP/18/140.

Box 4. Household Saving, Investment and the Implications for the U.S. Current Account

Personal saving. Since the mid-1970s the U.S. has seen a secular decline in the household saving rate. This downward trend reversed after the financial crisis but has, more recently, resumed. To examine whether the 2008-13 rise in the personal savings rate was due to transitory income and wealth shocks or, rather, an indication of structural changes in household behavior, a time-series vector error correction model was estimated for the U.S.[1] Econometric tests of that model find little evidence of a post-financial crisis break in the underlying elasticities between household consumption, disposable income and household net worth. Indeed, rolling estimation of the coefficients of the model appear remarkably stable over the past 50 years. The evidence instead points to the 2008–13 rise in the personal saving rate as being mainly the result of the path for disposable income, higher unemployment and the significant fall in wealth that was experienced during this period. Conditioning on staff's medium-term forecasts, the household saving rate is predicted to continue falling and eventually revert to the secular downtrend that was in place before 2007.

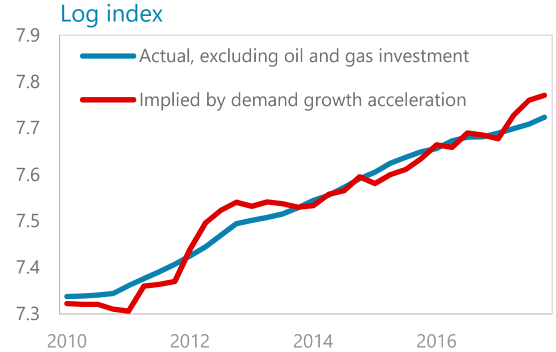
Personal savings rate,
percent of disposable income



Source: BEA and IMF staff estimates.

Business investment. For much of the current recovery investment growth has been lackluster despite record corporate profits, highly supportive financial conditions, robust business and consumer sentiment, rising equity valuations, and improving labor markets. Econometric estimates[2] suggest that weak expected demand growth explains most of the sluggish capital formation since the financial crisis. The marked decline in global oil prices has further weighed on aggregate investment from 2014 onwards. With expectations of solid future demand growth and a recovery in the oil and gas sectors, business investment should continue to strengthen.

Nonresidential Business Investment
Log index



Source: BEA; IMF staff projections.

Implications for the Current Account. Upward revisions to growth projections will support a rise in investment-GDP while solid disposable income growth and household wealth gains will lead to a further decline in the saving rate. At the same time, the public sector saving-investment balance is expected to worsen. Combined, these effects are expected to lead to an increase of around 1 percent of GDP in the U.S. current account deficit (bringing it to the highest level seen since the global financial crisis).

---

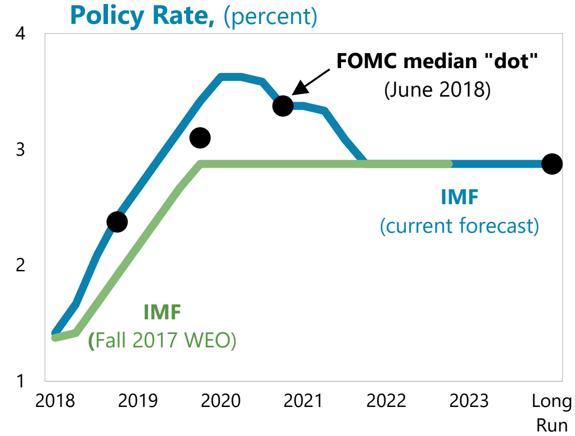
[1] See S. Ouliaris and C. Rochon, "The U.S. Personal Saving Rate", IMF Working Paper WP/18/128.

[2] See E. Kopp, "Determinants of U.S. Business Investment", IMF Working Paper, WP/18/139.

B. Monetary Policy

9. In light of the planned fiscal stimulus, the Federal Reserve will need to raise policy rates at a faster pace to achieve its dual mandate. The Federal Reserve should be ready to accept some modest, temporary overshooting of its medium-term inflation goal (as is indicated by the range of FOMC participants' forecasts). Even then, though, policy rates will likely need to rise for a time above the long-run neutral rate. The FOMC participants' median forecast suggests that both core inflation and the federal funds rate will rise at a moderately slower pace than in staff's forecasts; this is consistent with their expectation of growth that is somewhat slower than staff's forecasts in 2018-19. Barring a significant negative shock (for example, one that would lower interest rates back to the effective lower bound), the normalization of the balance sheet should proceed as outlined in the Fed's policy normalization principles. In executing its monetary policy decisions, the Fed's continued adherence to the principles of data dependence and clear communication will be vital. In this regard, scheduling a press conference after every FOMC meeting and publishing a quarterly monetary policy report (that details a central economic scenario, and description of risks around that baseline, that is endorsed by the FOMC) could help.

Policy Rate, (percent)



Sources: Federal Reserve and IMF staff estimates.

10. For most economies, the near-term net effect of higher U.S. growth and the expected increase in U.S. interest rates is expected to be beneficial. The largest positive spillovers are likely to accrue to Canada and Mexico, given their close economic ties with the U.S. However, even under this baseline, there could still be stress, particularly for leveraged firms and households (both in the U.S. and abroad) and/or for indebted sovereigns. Indeed, some of these strains are becoming evident in a handful of countries. Presumably, if some of the downside risks outlined above materialize, the outward effects would be far more damaging for a broader set of countries.

Authorities' Views

11. The risks to the economic outlook and to inflation prospects were assessed to be roughly balanced and further, gradual increases in the federal funds rate would be consistent with a solid expansion of economic activity, strong labor market conditions, and inflation near the FOMC's 2 percent medium term objective. At this stage, it looked likely that inflation would modestly overshoot 2 percent for a time but it was also likely that some of the recent acceleration in inflation represented transitory price changes (e.g. in health care and financial services). This path for inflation remains consistent with the FOMC's symmetric inflation objective and could even help anchor longer-run inflation expectations. There was little empirical evidence to suggest that the Phillips Curve was possibly steeper at lower levels of unemployment. However, intensified upward wage and price pressures, driven by supply constraints, was recognized as an important risk. Regardless, the path for the federal funds rate will continue to depend on the FOMC's assessment of the economic outlook, as informed by incoming data.

Economic Forecast (percent)

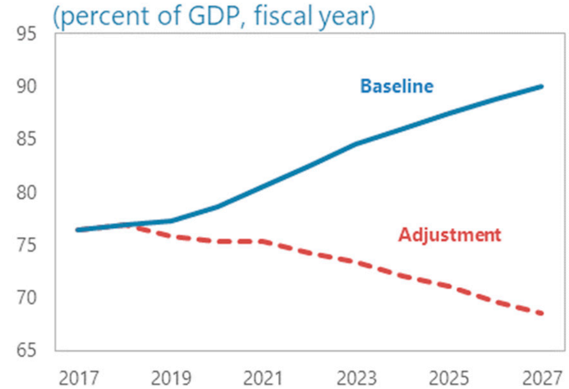
	2017	2018	2019	2020	2021	Longer Run
		Projections				
Real GDP Growth (annual average)						
IMF	2.3	2.9	2.7	1.9	1.7	1.7
CBO		3.0	2.9	2.0	1.5	1.8
Consensus		2.9	2.6	...	...	...
Real GDP Growth (Q4/Q4)						
IMF	2.6	3.0	2.4	1.5	1.9	1.8
FOMC		2.8	2.4	2.0	...	1.8
Unemployment Rate (eop)						
IMF	4.1	3.5	3.5	3.4	3.5	4.3
CBO		3.5	3.3	3.8	4.4	4.6
Consensus		3.7	3.6	...	...	...
FOMC		3.6	3.5	3.5	...	4.5
PCE Inflation (Q4/Q4)						
IMF	1.7	2.8	2.4	2.0	1.9	2.0
CBO		1.8	2.0	2.1	2.1	2.0
Consensus		2.1	2.3	...	...	...
FOMC		2.1	2.1	2.1	...	2.0
Core PCE Inflation (Q4/Q4)						
IMF	1.5	2.0	2.3	2.2	2.0	2.0
CBO		1.9	2.1	2.2	2.2	2.0
FOMC		2.0	2.1	2.1	...	...
Output Gap (percent of potential, annual average)						
IMF	0.3	1.2	1.9	1.9	1.8	...
CBO	-0.7	0.4	1.2	1.0	0.5	...
Federal Funds Rate (eop)						
IMF	1.5	2.6	3.6	3.4	2.9	2.9
FOMC		2.4	3.1	3.4	...	2.9
Budget balance (federal government, percent of GDP)						
IMF	-3.5	-4.1	-4.6	-4.5	-4.7	...
CBO		-4.0	-4.6	-4.6	-4.9	...
Primary budget balance (federal government, percent of GDP)						
IMF	-2.1	-2.5	-2.8	-2.4	-2.4	...
CBO		-2.4	-2.9	-2.4	-2.4	...
Debt held by the public (federal government, percent of GDP)						
IMF	76.5	76.9	77.2	78.5	80.5	...
CBO		78.0	79.3	80.9	83.1	...

Sources: CBO projections are from the Budget and Economic Outlook April 2018; FOMC projections are from the June 2018 Summary of Economic Projections; Consensus is for the Blue Chip Consensus, May 2018

RESTORING FISCAL SUSTAINABILITY AND REBUILDING FISCAL SPACE

12. Measures should be taken to raise the primary fiscal surplus of the general government to around 1¼ percent of GDP (1½ percent of GDP for the federal government) to put the debt-to-GDP ratio on a downward path. The U.S. has some fiscal space but should not use it at this stage in the cycle. Rather policies should be designed to:

Federal debt held by the public
(percent of GDP, fiscal year)



Source: IMF staff estimates.

- ***Reform social security*** including by raising the income ceiling for contributions, indexing benefits to chained inflation, and accelerating the planned increase in the retirement age.

- ***Contain healthcare cost inflation*** through technological solutions that increase efficiency, greater cost sharing with beneficiaries, and changing mechanisms for remunerating healthcare providers.

- ***Increase the federal revenue-GDP ratio*** by putting in place a broad-based carbon tax, a federal consumption tax, and a higher federal gas tax.

Such a set of policies would both allow the public debt-to-GDP ratio to fall and create the fiscal space for policies to support low- and middle-income families, promote investments in human and physical capital, and increase medium-term growth. Over the near term, the impact from a gradual (but steady) tightening in the fiscal position is likely to restrain growth to levels that are below staff's baseline forecast. However, if supply side policies are successful, potential and actual growth rates would be higher over the medium-term.

13. In the absence of a change in policy that reverses the planned increase in the fiscal deficit, the resource costs of the tax reform, approved spending increases, and the fiscal pressures arising from population aging will preclude the federal government from having the fiscal space to undertake a range of policies that are needed to sustainably raise potential growth. Such policies cut across a range of areas and have been identified and extensively discussed in previous Article IV consultations. As just one concrete example, and in addition to those policies summarized in Box 5, there is broad agreement within the U.S. that increasing federal spending on infrastructure is urgently needed. Fiscal space for such spending will need to be created. However, the planned expansion in the federal deficit described above will leave few budget resources available for infrastructure spending. Indeed, the recently approved budget bill for 2018-19 provides little incremental funding for infrastructure (despite the US$200 billion in

Box 5. Macro-Structural Policies to Boost Potential Growth[1]

Tackling Poverty

- Expand the eligibility for, and increase the generosity of, the Earned Income Tax Credit (EITC) to support lower income households and incentivize work. To lessen the risk an expanded EITC leads to a decline in pre-tax wages at the bottom of the income distribution, combine the change in the EITC with an increase in the federal minimum wage.
- Upgrade federal and state social assistance to simplify and unify the multitude of programs, increase the generosity of direct transfer programs, avoid "cliffs" in social benefits by smoothing the phase-out for those near the poverty line, and better target federal payments to program outcomes.

Improving Education

- Better prioritize spending on early childhood education and institute universal pre-K.
- Provide greater support for science, technology, engineering and mathematics programs.
- Redesign the funding model for public schools to reduce funding differences across districts and provide more resources to schools with a high concentration of students from low-income households.
- Expand apprenticeship and vocational programs to offer attractive, non-college career paths to workers of all ages.
- To improve the current relatively unimpressive levels of college degree attainment, the U.S. should focus more on preparing students for college and fostering retention once they are enrolled.
- Explore alternative federal financing options for tertiary education (including income contingent repayment loans and an expansion in needs-based grant programs) to increase access for students from low- and middle-income households.

Providing Family Friendly Benefits and Expanding the Labor Force

- Institute paid family leave.
- Provide means-tested assistance for child and dependent care expenses.
- Undertake a skills-based immigration reform.

Better Healthcare

- Protect the gains in health care coverage that have been achieved since the financial crisis, particularly for those at the lower end of the income distribution. Doing so will have positive implications for well-being, productivity and labor force participation.
- Drawing on existing pilot programs, and the deployment of new technologies, provide incentives to increase efficiency and pricing transparency from healthcare providers with a goal of containing inflation in healthcare services.
- Assess the scope to apply antitrust or other solutions to cases where the market concentration of health providers or insurers has increased and where premiums for non-group policies have been rising rapidly.

[1] See 2017 U.S. Article IV Staff Report, IMF Country Report 17/239 for further details.

appropriations requested by the administration). Even with the administration's positive efforts to streamline the regulatory structure, assess the viability of user fees, expand public-private partnerships and tax-preferred private activity bonds, improving U.S. infrastructure will need to be backed by a sustained increase in federal spending. This increase in spending should be structured around competitive programs geared toward high priority projects rather than formula-based, automatic allocations. However, any increase in federal outlays on infrastructure would need to be designed within an overall spending envelope that allows for a steady reduction in the federal deficit and debt over the next several years.

Authorities' Views

14. There is no intention to raise taxes and the administration is committed to protecting those budget programs (like social security and Medicare) that retirees rely upon. Both federal consumption taxes and carbon taxes were improbable sources of revenue. There would be efforts, however, to realize savings by negotiating better deals and leveraging the U.S. Government's buying power (e.g. for prescription drugs). Maintaining health care cost inflation below the nominal rate of growth of the economy was seen as a priority for the administration. The administration's view is that tax cuts and deregulation would unleash the American economy and the remaining fiscal adjustment would be undertaken through spending restraint. This would be achieved through an upgrading of information technology (to deliver better results and increase accountability), modernization of the federal workforce (including through the reskilling of existing workers, facilitating the removal of workers failing to meet performance standards, and making managers more nimble and agile), and the elimination of low-value functions of the federal government. There was agreement that there is an urgent need to address infrastructure needs through a combination of US$200 billion in direct federal funding over the next 10 years which would catalyze US$1.5 trillion in infrastructure spending by state, local and private providers. An expansion of tax-advantaged Private Activity Bonds would provide competitive financing for such projects. Finally, efforts to streamline permitting decisions and the disposal of land and properties that are no longer needed by the federal government are expected to encourage new infrastructure projects, generate revenue to finance such activities, and spur local economic development.

THE TAX CUTS AND JOBS ACT

15. There is broad agreement on the objectives underpinning the Tax Cuts and Jobs Act (TCJA). Specifically, as pointed out by the administration, the U.S. tax code has long needed an overhaul in order to simplify the system; make the U.S. business tax competitive; provide tax relief to lower- and middle-income Americans; lower statutory rates and broaden tax bases; increase equity (including by taxing households at similar levels of income in a uniform way, independent of their type of business or source of income); not provide income tax cuts for the wealthy; and to achieve all of these objectives without adding to the fiscal deficit.

16. In this regard, the Act contains many positive steps. These include efforts to reduce the scope of personal income tax deductions, lower marginal tax rates, create incentives for private investment, tackle base erosion and cross-border profit shifting, and reduce debt bias.

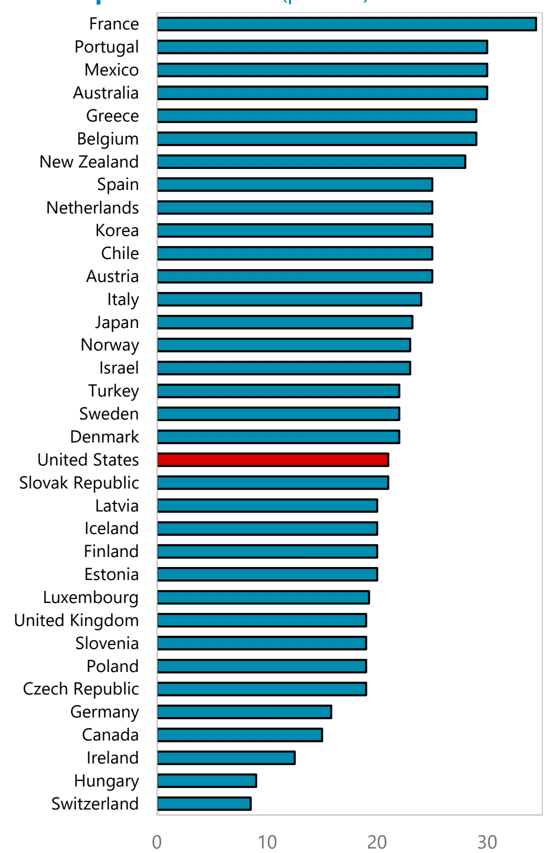
17. However, the approved tax policy changes have a high budgetary cost at a time when the federal budget is in urgent need of revenues. In addition, the temporary nature of many provisions creates significant tax policy uncertainty and instability in the tax system. As discussed above, the authorities should seek to prevent the tax policy changes from adding to the fiscal deficit by increasing the revenue-to-GDP ratio (largely through a greater reliance on indirect taxes).

18. There remains scope to strengthen various provisions of the code to better achieve the objectives outlined above:

A. Business Tax

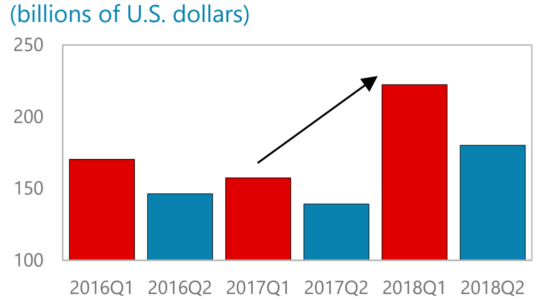
19. The reduction in the statutory business tax rate, to around the OECD average, and the expensing of certain types of capital spending are positive changes that, taken in isolation, will help incentivize investment, and lessen the incentive for base erosion and profit shifting. The Act, though, continues to allow for the deductibility of interest with a cap as a share of earnings. Such deductibility for debt-financed investment spending that can be immediately expensed conveys an overly generous benefit and continues to incentivize debt financing. In addition, the cap introduces a procyclical distortion into the system (because the cap becomes more binding when earnings weaken which, in a downside scenario, could exacerbate strains and bankruptcies in the corporate sector). Further, the temporary nature of the expensing provision distorts the timing of firms' investment decisions (to favor investing before the provisions expire). To further increase the competitiveness of the U.S. business tax and to further lessen the distortion it creates in investment decisions,

Statutory Central Government Corporate Tax Rate (percent)



Source: Organization for Economic Cooperation and Development.

Announced Equity Buybacks*
(billions of U.S. dollars)



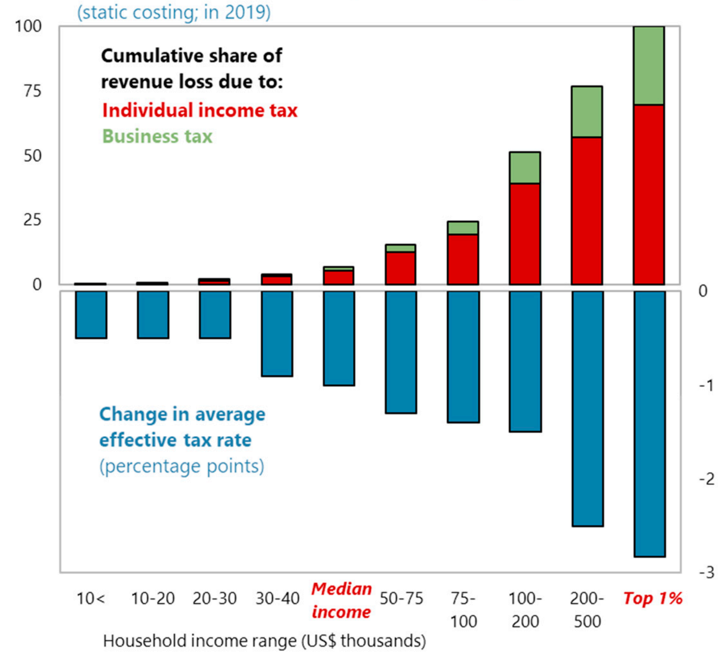
* 2018Q2 is through May 7.
Source: Bloomberg.

it would be preferable to go further in the direction of the TCJA and move the U.S. to a cashflow tax, permanently allowing for the expensing of all capital outlays and fully eliminating the deduction for interest spending on newly-contracted debt. The decision to levy a very low, one-time tax rate on the stock of unrepatriated profits conveys significant benefits to taxpayers that chose not to repatriate profits. Finally, the preliminary evidence is that, following the tax reform, U.S. multinationals have significantly increased their plans for share buybacks and dividend payouts.

B. Personal Income Tax

20. The changes to the personal income tax have many positive aspects. These include the elimination of most itemized deductions, a higher standard deduction and the elimination of personal exemptions, limits on the deduction for state and local taxes, and a lower cap on the mortgage interest deduction. Most U.S. households will see a reduction in their income tax in the next few years. However, the net effect of the tax policy changes—which also include reductions in the burden of the alternative minimum tax and a reduction in the marginal rate for higher income households—provides greater benefits to those in the upper deciles of the income distribution.

Tax Cuts and Jobs Act: Effect by Income Category,
(static costing; in 2019)



Source: Joint Committee on Taxation

21. As a result, these changes are likely to exacerbate income polarization. They also will do little to address the pressing needs of the working poor, both of which are important, macroeconomically relevant issues that have been raised in past Article IV consultations (see 2016 Article IV and 2017 Article IV). Indeed, the relative burden on low- and middle-income households rises as various provisions expire. To better target tax relief to lower- and middle-income Americans and prevent reductions in the income tax for the wealthy, it would be preferable to recalibrate the rate structure so as to concentrate tax relief to those earning close to or below the median income (with tax relief phasing out for those earning above 150 percent of the median income—the top third of the income distribution). As part of this change, and in line with past advice, the coverage and generosity of the Earned Income Tax Credit could be increased and there is space to eliminate loopholes and special regimes for high income earners, including the carried interest provision. The combination of these proposed changes would support low- and middle-income households, strengthen private sector demand, incentivize work, and raise living standards.

C. Pass-Throughs

22. Allowing for a 20 percent deduction for pass-through income creates an important mechanism for high income individuals to reduce their tax obligations by recharacterizing personal income as pass-through income. With around one half of the U.S. corporate tax base constituted as pass-throughs, this is counter to the authorities' objectives of increasing equity—especially between those taxpayers that can, and cannot, arrange their activities to take advantage of the deduction—and simplifying the system. The TCJA does contain guardrails that limit the use of the pass-through deduction. However, it is unclear how effective those provisions will be in preventing an erosion of the personal income tax base from high income individuals or from stopping pass-throughs from redesigning their operations to maximize their ability to qualify for the 20 percent deduction.

D. International Provisions

23. The TCJA has the potential to significantly reshape the international tax system. The U.S. has abandoned its system of global taxation with deferral and moved to a modified territorial system that embeds anti-avoidance measures and a minimum tax on the offshore profits of U.S. multinationals. Staff had previously recommended moving to a territorial system, with a minimum tax on offshore profits, as an important step to simplify the corporate tax system while helping to contain global tax competition and profit-shifting. However, there is scope to strengthen the design of various of the international provisions in the Act:

- To better curtail global tax competition, the minimum tax (the Global Intangible Low Taxed Income, GILTI) provision should be imposed on a country-by-country basis so that it falls on all profits earned in low tax jurisdictions (rather than on the average global profits of multinationals that are in excess of a deemed 10 percent return on tangible assets). As it stands, the link of this provision to worldwide profits and to tangible capital will create complex and distortionary effects on firm's global investment decisions and may dilute its effectiveness in dis-incentivizing cross-border tax competition.

- The lower tax rate for exporters (the Foreign Derived Intangible Income, FDII) should be eliminated to avoid the economic distortion that arises from providing a more favorable tax treatment for exports than for domestic sales. This would provide more of a level playing field for global investment decisions.

- The Base Erosion Anti-Abuse Tax (BEAT) will likely serve its intended function of helping to curtail various base erosion and profit shifting behaviors, but it is also likely to be punitive for a range of legitimate commercial activities that are not linked to tax avoidance. The provision also creates a broad-ranging preference for domestic over foreign production and creates new incentives for companies to rearrange their operations to avoid application of the BEAT. These shortcomings would be mitigated, and international tax planning strategies would be better contained, by only applying this provision to those transactions that are designed to transfer profits to related parties that are located in low tax jurisdictions.

E. International Tax Policy Spillovers

24. The far-reaching and innovative features of the TCJA create a complex array of both positive and negative spillovers for other countries, which stakeholders are still analyzing. The move to territoriality heightens the likelihood of profits and investments being shifted from the U.S. into lower tax jurisdictions (there is evidence that a similar move in the U.K. indeed increased outward investment to lower tax jurisdictions). However, the marked reduction in the statutory rate and preferential treatment for some exporters in the U.S. are important countervailing forces, and could encourage other jurisdictions to lower their tax rates, particularly when they are clearly above the new U.S. statutory rate. One potential effect of the innovative GILTI and FDII provisions is to potentially encourage the location of tangible investments abroad (especially in cases where the firm's effective foreign tax rate is low). This tendency will be strengthened for those projects that generate sizable commercial payments with related parties in other jurisdictions (since these may become subject to the BEAT if such intercorporate transactions are paid from a U.S. entity). At the same time, the GILTI provision is likely to discourage offshore jurisdictions from competing for U.S. investments by reducing their tax rate below 13.125 percent. It may even provide a floor on competition in the statutory rate, to the benefit of other relatively high tax rate jurisdictions. Furthermore, the reform could encourage other jurisdictions to consider ways, other than rate reductions, to compete for tangible investment. These could include faster depreciation rates (or even expensing), consideration of their own version of the BEAT, or other measures designed to achieve a similar, broad anti-profit shifting goal. The final impact on other countries (some of which have expressed WTO- and treaty-related concerns) is likely to vary considerably according to their circumstances.

Authorities' Views

25. The administration regards the provisions of the Tax Cuts and Jobs Act to be a historic achievement that will spur economic growth while providing middle-class families with a significant tax cut. Treasury modeled the revenue impact of higher growth effects compared to previous projections using the Administration's projections of approximately a 2.9 percent real GDP growth rate over 10 years contained in the Administration's Fiscal Year 2018 Budget. The administration's policies, relative to the baseline, would add around 0.7 percent to the annual real GDP growth rate over 10 years, with approximately half of this increase in growth coming from changes in corporate taxation. Further growth effects would arise from changes to pass-through taxation and the individual income tax as well as regulatory reform, infrastructure development and welfare reform. Expensing is regarded as a powerful tool to "front-load" the growth effects from the tax plan. This higher growth was estimated to generate enough revenue to cover the static cost of the tax bill. They also noted that, just in the few weeks and months after signing the Act into law, over six million American workers were given special bonuses, wage increases or other benefits. The authorities regarded that the new international provisions of the business tax system would encourage investment and jobs to return to the U.S. from abroad as well as prevent a "race to the bottom" by no longer encouraging companies to set up offshore entities in low tax jurisdictions.

TRADE POLICY

26. The U.S. has traditionally maintained a very open trade regime. Over the years, this has supported U.S. growth and job creation and helped raise living standards. U.S. leadership on trade has encouraged a range of countries to open their own trade regime, removing tariff and nontariff barriers. However, public concern over the side-effects of open trade has increased. It is in this context that various steps have been taken, or have been proposed, by the administration to impose new tariffs or otherwise restrict imports into the U.S.

27. As a prelude to these actions, the administration has undertaken several trade policy actions and reviews. These include an investigation into whether aluminum and steel imports "threaten to impair the national security" under Section 232 of the 1962 Trade Expansion Act, an investigation into whether China's actions, policies, and practices (related to technology transfer, intellectual property, and innovation) are unreasonable or discriminatory and burden or restrict U.S. commerce under Section 301 of the 1974 Trade Act, a review of "Buy American" provisions in government procurement, and a study to assess the causes underpinning the U.S. trade deficit (specifically for those trading partners that have a significant bilateral deficit in goods trade with the U.S.) which was completed but has not been made publicly available. The U.S. also opened up a renegotiation of the North American Free Trade Arrangement (Box 6) and of the free trade agreement with South Korea.

28. In the past few months, the U.S. has imposed tariffs on a variety of imports. Based on section 232 of the Trade Expansion Act, the administration has concluded that steel and aluminum imports threaten to impair national security and has imposed a tariff of 25 and 10 percent on steel and aluminum, respectively (with exemptions for Australia and Argentina (both metals) and Brazil and South Korea (steel only)). Safeguard tariffs have also been imposed under Section 201 of the 1974 Trade Act on washing machines and solar panels based on a finding that imports of these goods have seriously injured U.S. producers. The section 301 investigation has concluded that China is pursuing unfair trade practices (related to the forced transfer of U.S. technology and intellectual property), and tariffs have been proposed on around US$150 billion of imports from China. The U.S. has filed a request for consultations with China at the WTO to address China's technology licensing requirements. China has responded to these U.S. actions by proposing a list of tariffs on US$50 billion of U.S. products and requesting dispute consultations with the U.S. at the WTO. Most recently, the U.S. has temporarily put on hold the proposed tariffs on China, pending further discussions, but has initiated a section 232 investigation of imports of automobiles and automotive parts.

29. There is broad agreement that the global economy needs to be able to rely on an open, fair, and rules-based international trade system. These measures, though, are likely to move the globe further away from such a system, with adverse effects for both the U.S. economy and for trading partners. Specifically, they risk:

- Catalyzing a cycle of retaliatory trade responses from others, creating important uncertainties that are likely to discourage investment at home and abroad.
- Expanding the circumstances where countries cite national security motivations to justify broad-based import restrictions. This has the potential to undermine the rules-based global trading system and lead to heightened restrictions on trade in goods and services.
- Interrupting global and regional supply chains in ways that are likely to be damaging to a range of countries, and to U.S. multinational companies, that are reliant on these supply chains.
- Impacting a range of countries, particularly some of the more vulnerable emerging and developing economies, through increased financial market or commodity price volatility associated with these trade actions.

30. The U.S should work constructively with its trading partners to reduce trade barriers and to resolve trade and investment disagreements without resorting to tariff and non-tariff barriers. In such discussions, specific levels of the bilateral trade balance between the U.S. and other countries should not be viewed as either an anchor or a target (given that they are determined by a range of macroeconomic and structural forces and that targeting them is unlikely to reduce a country's overall trade deficit). Rather, the goal should be to pursue the important gains that are to be had, for all parties, from strengthening the rules-based, multilateral trading system and from securing more ambitious bilateral and plurilateral agreements on trade and investment. The size, diversity, and dynamism of the U.S. economy leaves it especially well poised to benefit from such trade and investment liberalization. However, it is possible there will be important effects on both labor markets and the income distribution from greater trade integration. The consequences for trade-affected U.S. workers should not be ignored and policy efforts should focus on mitigating the downsides through training, temporary income support, and job search assistance (including through a broader deployment of the existing trade adjustment assistance program).

Authorities' Views

31. The administration regards recent steps to impose tariffs as a step toward creating the leverage needed to achieve more free, fair and reciprocal trade. They regarded that most U.S. trading partners maintain regimes that create explicit and implicit barriers to U.S. exports and that there was a need to rebalance trade relationships, something that had been neglected by past administrations. They regarded the Chinese economy as a non-market system that was deeply distorted by pervasive subsidies, preferential industrial policies that unfairly bolster Chinese firms, obstacles to imports from the U.S., and various forms of discrimination against foreign firms (including forced technology transfer, disregard for intellectual property rights, and cyber theft). For NAFTA, their goal is to modernize the agreement and rebalance trade, particularly with Mexico and for the auto sector and were hopeful an agreement could be reached later this year. The U.S. was looking to change rules of origin so as to increase U.S. and North American content in the production chain; to require stronger labor standards (including fair collective bargaining); and to incorporate strong currency provisions into the final agreement. The administration noted that while Europe was one of the U.S. closest allies, they nevertheless maintained more trade protections on U.S. products than did the U.S. on European products. The authorities emphasized their strong commitment to the WTO and listed WTO reform as a key trade priority, welcoming reform proposals from other members. They recognized the risk to the global system of relying on national security as grounds for trade action, but expressed that lack of progress in international fora warranted such actions.

Box 6. Impact of a Successful Renegotiation of NAFTA

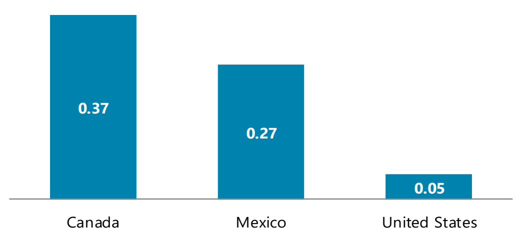
Negotiations on an updated North-American Free Trade Agreement have been ongoing since August 2017. This box provides an assessment of the potential effects of a successful renegotiation for Canada, Mexico and the United States. The analysis focusses on tariff and non-tariff measures, as well as on rules on origin in the motor vehicles and auto parts sectors.

The scenario that is simulated assumes the elimination of all tariffs between the three signatories, a one-percent increase in good trade efficiency, a reduction by 25 percent of service trade inefficiencies, and a reduction in compliance costs from rules of origin provisions.

All three countries would benefit from a successful NAFTA renegotiation:

- Real GDP would increase in all three countries.
- Trade among the three countries would increase by 4 percent overall.
- Canada's bilateral trade surplus with the U.S. would fall by 25 percent; Mexico's surpluses with Canada and the U.S. would remain largely unchanged.

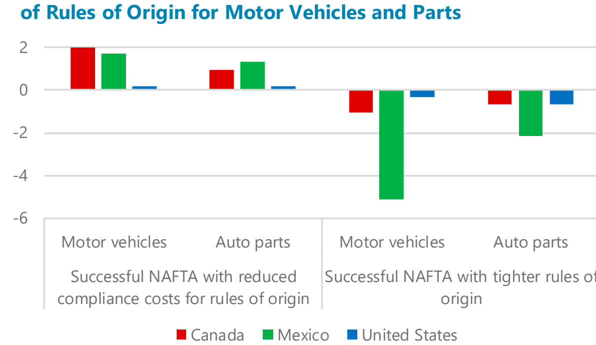
Percentage Change in Real GDP due to Successful NAFTA Renegotiation



The composition of production in the three countries would also change. Apparel and textile sectors would be growth areas in Mexico, apparel and motor vehicles would be the net gainers in Canada, while dairy products and textiles would expand in the U.S. Motor vehicles and auto parts output would increase in all three countries. The effects on services industries would be relatively small.

Tighter rules of origin in the automotive sector would offset some of these positive effects. If tighter rules of origin requirements were put in place, U.S. exports of auto parts to Canada and Mexico would decline, as would U.S. imports of vehicles from both countries. A greater share of the demand for parts and vehicles would be met from imports that come from outside of the NAFTA countries; Mexico's auto industry would the most negatively affected.

Percent Changes in Output Volumes with Different Treatment of Rules of Origin for Motor Vehicles and Parts



FINANCIAL SYSTEM OVERSIGHT

32. Important gains have been made in strengthening the financial oversight structure since the global financial crisis. Some useful steps are underway to recalibrate and simplify financial regulations and better tailor them to underlying risks:

- Legislation has been signed into law that raises the total asset threshold to US$250 billion for bank holding companies (BHC) to be classified as systemic. This strikes a reasonable balance between a mandatary application of enhanced prudential standards and providing the Federal Reserve with the ability to deem BHCs with assets between US$100–250 billion as systemic and subject to such standards. This change will help lessen compliance costs for medium-sized BHCs but will necessarily increase the burden on high-quality and independent supervision to manage financial stability risks. Consideration should be given to continuing to apply stress-tests at a regular frequency for those banks that have assets between US$100-250 billion. In any case, implementation of these changes should be done in a way that does not weaken the ability of supervisors to take early remediation and risk mitigation actions for BHCs with assets below US$250 billion.

- Modest changes have been made to exclude custodial assets from the calculation of the Supplementary Leverage Ratio, include highly liquid municipal bonds in the definition of High Quality Liquid Assets (subject to limits and haircuts), and exempt BHCs with total assets under US$10 billion from the Volcker rule. These appear to represent appropriate tailoring of the Dodd-Frank Act framework for financial oversight, although care should be taken to ensure that it does not deviate materially from international standards.

- The Federal Reserve and the Office of the Comptroller of the Currency have proposed modifying the enhanced supplementary leverage ratio (eSLR) for globally systemic important banking organizations (GSIBs) to set the ratio at 3 percent plus a buffer of 50 percent of the entity's risk-based capital surcharge. This would make the risk-based capital requirement, rather than the leverage ratio, binding for most GSIBs. The proposal is still somewhat more stringent than international minimum standards but would, however, diminish the buffers that have helped increase U.S. banking system resilience.

- The Treasury has argued for changes to the resolution framework to strengthen the courts' ability to deal with complex financial failures under a new special, streamlined bankruptcy procedure. This new process would complement—but not replace—the existing Orderly Liquidation Authority and more tightly circumscribe the authority granted to the FDIC—including in the use of public money—when it resolves a financial institution. It will be important that this change is implemented in a way that does not limit the flexibility of the resolution regime, hinder rapid action, or complicate cross-border resolution.

- Finally, the Treasury has proposed steps to increase the transparency and analytical rigor of the FSOC's designation process. These include comprehensive cost-benefit analysis and the provision of clear guidance for financial institutions that are designated as systemic. In assessing systemic risks, evaluations would be based on an activity-based framework and designation would be used only as a last resort (when systemic risks cannot be sufficiently mitigated through other means). These changes have the potential to strengthen the designation process but much will depend on how they are executed. Clarifying the changes to the process and the implementation of those changes should be done at an early stage.

- The Federal Reserve has advanced for comment a proposal to lessen the compliance requirements for the Volcker Rule (a part of the Dodd-Frank Act that aimed at restricting the ability of banks to engage in proprietary trading). The complexity, and in some cases ambiguity, of the regulation has long been considered a problem that creates regulatory uncertainty, raises compliance costs, and was difficult to enforce. The proposed measures are largely aimed at simplifying the regime, making it easier to enforce, and moving toward a more risk-based standard. Such changes are justified based on the experience to date with the rule but it will be important to clarify how the revised rule will be enforced and how much latitude banks will have for self-policing as well as carefully monitor the effects of its implementation.

33. **When each is taken in isolation, the steps proposed to better tailor financial regulations are likely to have only a modest impact on financial stability risks.** However, there are also potentially important interactions between the various regulatory changes, that largely move in a procyclical direction, and the effects of the procyclical fiscal policy that is currently in place. This is of even greater concern since, as discussed above, medium-term financial vulnerabilities have been steadily building and medium-term financial stability risks are elevated. More analysis is needed to build a clear picture of the combined effect of all these changes taken together.

34. **Future changes to financial oversight should ensure that the current risk-based approach to regulation, supervision and resolution is preserved**. Risk-based capital and liquidity standards, combined with strong supervision, should remain a central tool in incentivizing financial institutions to manage well the risks they undertake. In support of these capital and liquidity requirements, the Comprehensive Capital Analysis and Review exercise should be maintained and strengthened, including in its assessment of liquidity and contagion risks. While tailoring is fully justified, a greater burden of managing financial stability risks will be placed on high-quality and independent supervision. The FSOC should continue its efforts to respond to emerging threats to financial stability and, in this work, there is scope to strengthen, and more fully resource, the Office of Financial Research. Finally, the U.S. should remain engaged in developing the international financial regulatory architecture and should be fully committed to agreed international standards.

35. **There remains a need to strengthen the oversight of nonbanks**. As has been highlighted in previous consultations, there are potential weaknesses in oversight arising from the absence of harmonized national standards or consolidated supervision for insurance companies. Also, recent proposals to limit the engagement of federal authorities in international supervisory fora could prove cumbersome for the insurance standard setting process and the development of the global capital standard. Progress has been made in money market reform but residual

vulnerabilities, in repo markets and for money market funds, remain. There is also a need to introduce a comprehensive liquidity risk management framework for asset managers (that includes liquidity risk stress tests). Little progress has been made in reforming the housing finance system or the government sponsored enterprises. Finally, impediments to data sharing among regulatory agencies remain and there are data blind spots, particularly related to the activities of nonbanks, that preclude a full understanding of the nature of financial system risks, interlinkages and interconnections.

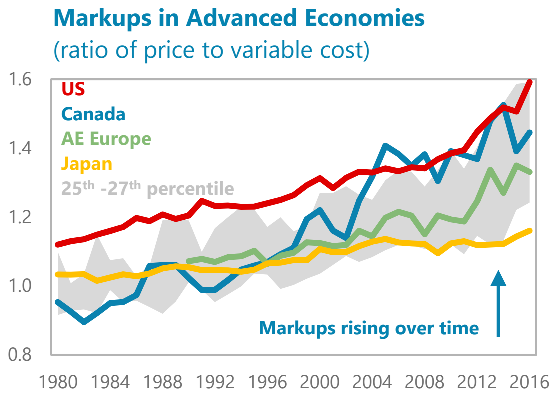
Authorities' Views

36. The administration is committed to make financial regulation efficient and appropriately tailored to the size and systemic risk profile of the institutions, while preserving the improvements made since passage of the Dodd-Frank Act. Changes to the eSLR were necessary to make risk-based capital standards the binding constraint (rather than the minimum leverage ratio, which is supposed to serve as a backstop). Similarly, the orderly liquidation framework was maintained, including the orderly liquidation fund, but the role of courts has been strengthened. The increased room for maneuver provided by the Economic Growth, Regulatory Relief, and Consumer Protection Act will be used to further tailor the supervision of small and medium-sized bank holding companies. Separately, the FSOC will use an activities-based approach to systemic risks, relying to the extent possible on the primary regulators, with designation of systemically important financial institutions reserved for instances where this approach is insufficient; in addition, the designation process will be more transparent and accompanied by a clear path for de-designation. Implementing a stress capital buffer instead of fixed capital surcharges formalizes the capital constraint for large bank holding companies. The authorities do not see the banking system as an imminent source of financial stability risk, and risks from institutions outside the regulated perimeter are assessed to be moderate (insurance industry, asset management, crypto currencies and cyber risk).

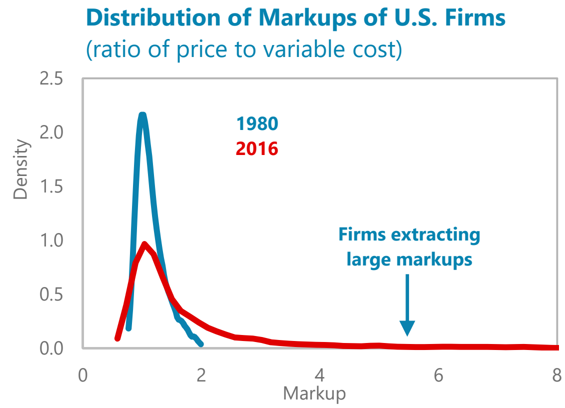
COMPETITION POLICY

37. The market power of corporations is becoming more pronounced across a range of major U.S. industries, with important macroeconomic effects.[1] Margins between prices and variable costs—markups—have been rising steadily since the 1980s, and at an accelerated pace since 2010. Measures of industry concentration and profitability mirror this increase in market power. Corporate level data for U.S. publicly traded firms suggest that these trends have been driven by an increase in rents that are accruing to a relatively small, but growing, number of "superstar" firms (some of which have been created through mergers and acquisitions). The same dynamics appear to be underway in other advanced economies, although not in emerging market economies.

[1] See F. Diez, D. Leigh, and S. Tambunlertchai, "Global Market Power and its Macroeconomic Implications", IMF Working Paper WP/18/137.

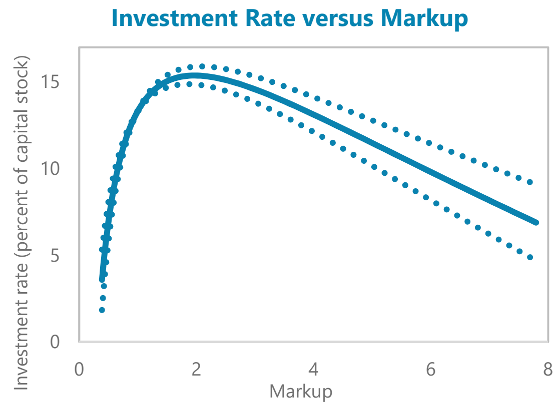


Source: IMF staff estimates. Note: Sales weighted averages .



Source: IMF staff estimates for U.S. publicly traded firms.

38. While there is significant heterogeneity in the causes underlying this rising market power, the evidence suggests that these developments are having important effects on macroeconomic outcomes. These include:



Note: Dashes indicate 90 percent confidence interval.
Source: IMF staff estimates for U.S. publicly traded firms.

- ***Potentially depressing future investment and R&D spending***. There appears to be a non-monotonic relationship between market power, market concentration, and investment spending (on both physical capital and on R&D). At low levels of markups, an increase in market power is associated with more investment but eventually higher markups begin to weaken the incentives to invest, particularly for companies operating in industries with high levels of market concentration. These findings suggest that firms initially invest heavily (in both physical capital and R&D) to establish their market power. However, once the industry becomes concentrated and firms have consolidated their market position, they act more like monopolists, limiting investment below that which would occur in the competitive case.

- ***Putting downward pressure on the labor share of income***. Higher markups and higher market concentration are associated with a declining labor share. Company level data suggests that, as companies increase their market power, they start to appropriate a growing share of the rents from production, leaving smaller returns accruing to labor (with knock-on effects to the income distribution and consumption growth).

39. The right policy responses to this increase in market power are complex.

- In cases where barriers to entry or increasing returns are driving the increase in market power, and where that power is being used to price discriminate, restrict supply or engage in predatory pricing, there is a clear role for applying antitrust policies.

- In other cases, network and information externalities or increasing returns to scale may justify an oligopolistic structure. However, supernormal profits or rents from such market power should be taxed fairly. Care is needed, though, in not unintentionally placing an unfair tax burden on returns that arise from up-front investments (in areas such as R&D, for example). This could be achieved, for example, by moving to a cashflow tax or another form of rent tax.

- In either case, public policy should certainly focus on ensuring that markets remain contestable and on preventing corporate practices that constitute a restraint of trade. It may also sometimes be appropriate for the entity providing the service to be regulated.

- Finally, insofar as increased market power arises from greater efficiency or technological innovation, there may be a public policy role to help workers displaced by such changes in market structure, including through relocation or retraining support. Such support should be broad-based and apply to all workers that are facing a transition (whether it is a symptom of changes in trade patterns, of technology, or of shifts in market power).

Authorities' Views

40. The administration is committed to protecting consumers from anticompetitive, deceptive, and unfair business practices without unduly burdening legitimate business activity. There is some evidence of increasing concentration in some industries, and close antitrust scrutiny is warranted. At the same time, the evidence regarding broad economy-wide trends in market power is inconclusive. Market power indicators do not lend themselves to meaningful comparisons across industries. While market power does not currently represent a significant risk to the U.S. economic outlook, the administration intends to rigorously enforce antitrust laws to prevent anticompetitive mergers or other anticompetitive business practices.

STAFF APPRAISAL

41. **Economic outlook.** The near-term outlook for the U.S. economy is one of strong growth and job creation. These positive outturns have supported, and been reinforced by, a favorable external environment with a broad-based pick up in global activity. Next year, the U.S. economy is expected to mark the longest expansion in its recorded history. However, the same policies that are boosting near-term prospects are creating a number of vulnerabilities for the medium-term.

42. **Fiscal policy.** The U.S. is pursuing a procyclical fiscal policy that will elevate the risks to the U.S. and global economy. The planned expansion in the fiscal deficit should be reversed. The administration's chosen policy path will add to an already-unsustainable public debt, contribute to a rise in global imbalances, and increase risks of future recession, with concomitant negative spillovers to the global economy. The increase in the federal deficit is expected to have only modest effects on potential output and will leave few budget resources available for the government to invest in a range of urgently needed supply-side reforms that would boost medium-term growth and raise living standards.

43. Monetary policy. The sizable fiscal stimulus will likely mean that the Federal Reserve will need to raise policy rates at a faster pace to achieve its dual mandate. Policy rates will likely need to rise, for a time, above the long-run neutral rate. In executing its monetary policy decisions, the Fed's continued adherence to the principles of data dependence and clear communication will be vital. An inflation surprise, driven by capacity constraints becoming more binding and the economy pushes further through full employment, represents an important risk that, if realized, would create volatility and disruptions in U.S. and international financial markets with negative spillovers to other countries.

44. Tax policies. The U.S. should aim to increase its revenue-to-GDP ratio through a greater reliance on indirect taxes. Personal income tax relief should be targeted at those earning close to or below the median income, including through a more generous and expansive Earned Income Tax Credit. The business tax should transition to a cashflow tax, making permanent the immediate expensing of capital spending and eliminating interest deductibility for new debt. International provisions should be redesigned to impose a minimum tax that is targeted more narrowly to low-tax jurisdictions and to avoid discriminatory treatment between imports, exports, and production for domestic use.

45. Trade. The U.S and its trading partners should work constructively together to reduce trade barriers and to resolve trade and investment disagreements without resorting to the imposition of tariff and non-tariff barriers. The various trade measures that have been unilaterally proposed or enacted by the administration are likely to move the globe further away from an open, free, fair, reciprocal and rules-based global trading system. This would both damage the U.S. economy and lead to negative spillovers to trading partners including by catalyzing a cycle of retaliatory trade responses from others and expanding the circumstances where countries cite national security motivations to justify broad-based import restrictions.

46. Financial stability. Important gains have been made in strengthening the financial oversight structure since the global financial crisis. Near-term risks to financial stability appear to be broadly similar to those at the time of the last Article IV but medium-term risks are elevated. These risks include those that arise from high equity market valuations, rising leverage and a weakening of underwriting standards for corporate credit, the growth of passively managed investment products and the uncertainties pose by cyber risks. Recent proposals to simplify regulations generally represent further improvements but also place a greater burden on high-quality and independent supervision to manage financial stability risks. Future changes to financial oversight should continue to ensure that the current risk-based approach to regulation, supervision and resolution is preserved. There is an ongoing need to strengthen regulatory and supervisory oversight of nonbanks.

47. Outward spillovers. The net effect of U.S. policy choices—related to the budget and tax policy—will be to provide a near-term boost to trading partner output but also to increase the range and size of future risks and uncertainties and add to global imbalances. Insofar as the chosen policy mix prompts a tightening of global financial conditions, countries with high levels of U.S. dollar debt and/or a significant rollover need are likely to come under pressure. There is also a risk of a marked reversal of capital flows, away from emerging markets, which could be disruptive. We are already starting to see symptoms of these negative spillover effects in other countries.

48. It is recommended that the next Article IV consultation take place on the standard 12-month cycle.

Table 1. United States: Selected Economic Indicators

(percentage change from previous period, unless otherwise indicated)

			Projections					
	2016	2017	2018	2019	2020	2021	2022	2023
National production and income								
Real GDP	1.5	2.3	2.9	2.7	1.9	1.7	1.5	1.4
Net exports 1/	-0.2	-0.2	-0.4	-0.6	-0.5	0.0	-0.1	0.0
Total domestic demand	1.7	2.4	3.3	3.2	2.3	1.7	1.6	1.3
Private final consumption	2.7	2.8	2.8	2.5	1.9	2.1	2.1	1.9
Public consumption expenditure	1.0	0.1	1.3	3.0	1.4	0.1	-0.3	-0.6
Gross fixed domestic investment	0.6	3.4	5.7	6.0	4.3	1.3	0.8	0.7
Private fixed investment	0.7	4.0	6.3	6.9	4.6	1.0	0.4	0.2
Public fixed investment	-0.2	0.1	2.7	1.6	2.6	2.8	3.2	3.1
Change in private inventories 1/	-0.4	-0.1	0.1	0.0	0.1	0.0	0.0	0.0
Nominal GDP	2.8	4.1	5.4	5.6	4.0	3.8	3.7	3.5
Personal saving rate (% of disposable income)	4.9	3.4	2.5	2.5	2.7	3.0	3.3	3.7
Private investment rate (% of GDP)	16.4	16.6	17.2	17.7	18.1	18.0	17.8	17.6
Unemployment and potential output								
Unemployment rate	4.9	4.4	3.8	3.5	3.4	3.6	3.6	3.8
Labor force participation rate	62.8	62.8	62.8	62.6	62.4	62.2	62.0	61.8
Potential GDP	1.7	1.8	2.0	2.0	1.9	1.8	1.7	1.7
Output gap (% of potential GDP)	-0.2	0.3	1.2	1.9	1.9	1.8	1.5	1.2
Inflation								
CPI inflation (q4/q4)	1.8	2.1	3.2	2.7	2.3	2.2	2.2	2.3
Core CPI Inflation (q4/q4)	2.2	1.7	2.4	2.6	2.5	2.3	2.3	2.3
PCE Inflation (q4/q4)	1.6	1.7	2.8	2.4	2.0	1.9	1.9	2.0
Core PCE Inflation (q4/q4)	1.9	1.5	2.0	2.3	2.2	2.0	2.0	2.0
GDP deflator	1.3	1.8	2.4	2.8	2.0	2.1	2.2	2.1
Government finances								
Federal balance (% of GDP) 2/	-3.2	-3.5	-4.1	-4.6	-4.5	-4.7	-5.0	-4.8
Federal debt held by the public (% of GDP)	76.7	76.5	76.9	77.2	78.5	80.5	82.5	84.6
General government budget balance (% of GDP)	-4.2	-4.5	-5.3	-5.5	-5.3	-5.4	-5.4	-4.9
General government gross debt (% of GDP)	107.2	105.6	106.0	106.5	108.1	109.9	111.6	113.1
Interest rates (percent; period average)								
Fed funds rate	0.4	1.0	1.9	3.0	3.6	3.2	2.9	2.9
Three-month Treasury bill rate	0.3	0.9	2.0	3.0	3.4	3.0	2.7	2.7
Ten-year government bond rate	1.8	2.3	3.0	3.5	3.8	3.7	3.6	3.6
Balance of payments								
Current account balance (% of GDP)	-2.4	-2.4	-3.0	-3.2	-3.6	-3.4	-3.2	-3.0
Merchandise trade balance (% of GDP)	-4.0	-4.2	-4.6	-4.7	-5.2	-5.1	-5.1	-5.0
Export volume (NIPA basis, goods)	0.3	4.5	5.2	2.7	2.1	3.5	2.9	4.4
Import volume (NIPA basis, goods)	0.9	4.3	7.2	7.0	5.9	3.3	3.6	2.9
Net international investment position (% of GDP)	-44.7	-40.5	-41.4	-42.5	-44.4	-46.2	-47.8	-49.2
Saving and investment (% of GDP)								
Gross national saving	18.0	17.5	17.3	17.6	17.6	17.7	17.8	17.8
General government	-1.8	-1.6	-3.6	-4.1	-4.0	-4.0	-3.7	-3.2
Private	19.8	19.0	21.0	21.7	21.6	21.7	21.5	21.1
Personal	3.7	2.5	1.9	1.8	2.0	2.2	2.4	2.8
Business	16.2	16.5	19.1	19.9	19.6	19.5	19.1	18.3
Gross domestic investment	19.7	19.8	20.4	20.8	21.2	21.1	21.0	20.9
Private	16.4	16.6	17.2	17.7	18.1	18.0	17.8	17.6
Public	3.3	3.2	3.2	3.1	3.1	3.1	3.2	3.2

Sources: BEA; BLS; FRB; Haver Analytics; and IMF staff estimates.
1/ Contribution to real GDP growth, percentage points.
2/ Includes staff's adjustments for one-off items, including costs of financial sector support.

Table 2. United States: Balance of Payments

(percentage change from previous period, unless otherwise indicated)

			Projections					
	2016	2017	2018	2019	2020	2021	2022	2023
Real exports growth								
Goods and services	-0.3	3.4	4.2	2.9	2.4	3.6	3.1	3.8
Goods	0.3	4.5	5.2	2.7	2.1	3.5	2.9	4.4
Services	-1.5	1.3	2.3	3.2	3.1	3.7	3.3	2.9
Real imports growth								
Goods and services	1.3	4.0	6.3	6.3	5.1	2.9	3.2	2.8
Goods	0.9	4.3	7.2	7.0	5.9	3.3	3.6	2.9
Nonpetroleum goods	0.5	4.7	8.7	8.3	6.3	3.5	4.1	3.3
Petroleum goods	5.3	-0.4	-7.0	-5.1	1.0	0.3	-2.8	-1.7
Services	3.2	2.5	2.2	3.0	1.6	1.0	1.5	1.9
Net exports (contribution to real GDP growth)	-0.2	-0.2	-0.4	-0.6	-0.5	0.0	-0.1	0.0
Nominal exports								
Goods and services	11.9	12.1	12.6	13.0	12.9	12.7	12.7	12.7
Nominal imports								
Goods and services	14.7	15.0	15.9	16.4	16.7	16.4	16.3	16.0
Current account								
Current account balance	-2.4	-2.4	-3.0	-3.2	-3.6	-3.4	-3.2	-3.0
Balance on trade in goods and services	-2.7	-2.9	-3.4	-3.5	-3.9	-3.8	-3.6	-3.4
Balance on income	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.4
Capital and Financial Account								
Capital account balance	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1
Financial account balance	-2.0	-1.8	-3.0	-3.2	-3.6	-3.4	-3.2	-3.0
Direct investment, net	-0.9	0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.4
Potrfolio investment, net	-1.1	-1.3	-2.4	-2.5	-2.4	-1.8	-1.7	-1.7
Financial derivatives, net	0.1	0.1	-0.1	0.0	0.0	0.0	0.0	0.0
Other investment, net	-0.2	-1.0	0.0	-0.3	-0.8	-1.2	-1.1	-0.9
Reserve assets, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Errors and Omissions	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Net International Investment Position	-44.7	-40.5	-41.4	-42.5	-44.4	-46.2	-47.8	-49.2
Direct investment, net	-1.0	0.0	-0.5	-1.0	-1.3	-1.6	-2.0	-2.3
Potrfolio investment, net	-40.1	-36.4	-37.1	-37.6	-38.6	-39.0	-39.3	-39.8
Financial derivatives, net	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Other investment, net	-6.0	-6.5	-6.2	-6.2	-6.8	-7.7	-8.6	-9.1
Reserve assets, net	2.2	2.3	2.2	2.1	2.0	1.9	1.9	1.8
Memorandum items								
Current account balance (US$ billions)	-452	-466	-618	-698	-812	-799	-780	-756
Non-oil trade balance (% of GDP)	-2.4	-2.6	-2.8	-3.1	-3.5	-3.5	-3.4	-3.2
Foreign real GDP growth	2.3	2.9	2.8	2.9	2.8	2.7	2.7	2.6
U.S. real GDP growth	1.5	2.3	2.9	2.7	1.9	1.7	1.5	1.4
U.S. real total domestic demand growth	1.7	2.4	3.3	3.2	2.3	1.7	1.6	1.3

Sources: BEA; FRB; Haver Analytics; and IMF staff estimates.

Table 3. United States: Federal and General Government Finances

(percent of GDP)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
		Projections									
Federal government	(fiscal years; budget basis)										
Revenue	17.3	16.6	16.5	16.7	16.8	17.0	17.2	17.4	17.6	18.1	18.5
Expenditure	20.8	20.7	21.2	21.2	21.5	22.0	22.0	21.9	22.3	22.7	22.9
Non-interest	19.4	19.1	19.3	19.1	19.2	19.6	19.6	19.4	19.8	20.0	20.2
Interest	1.4	1.6	1.8	2.1	2.3	2.4	2.5	2.5	2.5	2.6	2.8
Budget balance 1/	-3.5	-4.1	-4.6	-4.5	-4.7	-5.0	-4.8	-4.5	-4.7	-4.5	-4.4
Primary balance 2/	-2.1	-2.5	-2.8	-2.4	-2.4	-2.6	-2.3	-2.0	-2.2	-1.9	-1.7
Primary structural balance 3/ 4/	-2.1	-2.7	-3.2	-2.8	-2.8	-3.0	-2.6	-1.8	-2.1	-1.7	-1.5
Change	-0.3	-0.6	-0.5	0.4	0.0	-0.2	0.4	0.8	-0.3	0.3	0.2
Federal debt held by the public	76.5	76.9	77.2	78.5	80.5	82.5	84.6	85.9	87.5	88.8	89.9
General government	(calendar years; GFSM2001 basis)										
Revenue	32.4	31.7	31.6	31.7	31.7	31.9	32.1	32.2	32.4	33.1	33.1
Expenditure	36.9	37.0	37.1	37.0	37.1	37.3	37.0	36.8	37.0	37.1	37.3
Net interest	2.1	2.2	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.2	3.3
Net lending 1/	-4.5	-5.3	-5.5	-5.3	-5.4	-5.4	-4.9	-4.6	-4.6	-4.1	-4.2
Primary balance 2/	-2.5	-3.0	-3.1	-2.6	-2.6	-2.4	-2.0	-1.6	-1.5	-0.9	-0.9
Primary structural balance 3/ 4/	-2.7	-3.5	-3.8	-3.3	-3.2	-3.0	-2.3	-1.6	-1.5	-1.0	0.5
Change	-0.4	-0.8	-0.3	0.4	0.1	0.2	0.7	0.8	0.1	0.5	1.4
Gross debt	105.6	106.0	106.5	108.1	109.9	111.6	113.1	113.8	114.5	116.2	116.4
incl. unfunded pension liab.	124.4	124.9	125.4	127.1	129.0	130.8	132.3	133.1	133.9	135.7	135.9
Memorandum items	(from authorities)										
Federal government deficit											
President's latest budget	-3.5	-4.2	-4.7	-4.5	-3.9	-3.7	-3.0	-2.3	-2.1	-1.7	-1.4
CBO budget assessment	-3.5	-3.9	-4.5	-3.9	-4.1	-4.4	-3.9	-3.4	-3.4	-3.2	-3.4
CBO baseline (current law)	-3.5	-3.9	-4.6	-4.6	-4.9	-5.4	-5.2	-4.9	-5.1	-4.8	-4.6
Federal government debt											
President's latest budget	76.5	78.8	80.3	81.3	81.7	81.9	81.3	79.9	78.4	76.6	74.6
CBO budget assessment	76.5	78.0	79.1	80.1	81.5	83.2	84.3	84.6	85.0	85.3	85.7
CBO baseline (current law)	76.5	78.0	79.2	80.8	82.9	85.6	87.8	89.5	91.4	93.0	94.4

Sources: Congressional Budget Office; Office of Management and Budget; and IMF staff estimates.
Note: Fiscal projections are based on the June 2017 Congressional Budget Office baseline adjusted for the IMF staff's policy and macroeconomic assumptions. Projections incorporate the effects of tax reform (Tax Cuts and Jobs Act, signed into law end-2017) as well as the Bipartisan Budget Act of 2018 passed in February 2018. Fiscal projections are adjusted to reflect the IMF staff's forecasts for key macroeconomic and financial variables and different accounting treatment of financial sector support and of defined-benefit pension plans and are converted to a general government basis. Data are compiled using SNA 2008, and when translated into GFS this is in accordance with GFSM 2014. Due to data limitations, most series begin 2001.

1/ Includes staff's adjustments for one-off items, including costs of financial sector support.
2/ Excludes net interest.
3/ Excludes net interest, effects of economic cycle, and costs of financial sector support.
4/ Percent of potential GDP.

Table 4. United States: Core FSIs for Deposit Takers

(percent unless stated otherwise)

	2011	2012	2013	2014	2015	2016	2017
Regulatory capital to risk-weighted assets	14.7	14.5	14.4	14.4	14.1	14.2	14.4
Regulatory tier 1 capital to risk-weighted assets	12.6	12.7	12.8	13.1	13.1	13.2	13.4
Non-performing loans net of provisions to capital	17.6	15.7	11.7	8.8	7.2	6.6	5.8
Non-performing loans to total gross loans	3.8	3.3	2.5	1.9	1.5	1.3	1.2
Sectoral distribution of total loans: residents	95.6	95.5	95.2	95.6	95.8	96.1	96.1
Sectoral distribution of total loans: deposit-takers	6.0	6.0	5.0	4.1	3.6	3.8	3.7
Sectoral distribution of total loans: other financial corporations	3.8	4.4	5.2	6.2	6.7	6.7	6.8
Sectoral distribution of total loans: general government	0.9	1.1	1.2	1.3	1.4	1.5	1.6
Sectoral distribution of total loans: nonfinancial corporations	31.8	32.1	33.3	34.2	35.0	35.5	35.9
Sectoral distribution of total loans: other domestic sectors	53.1	51.9	50.5	49.8	49.1	48.5	48.1
Sectoral distribution of total loans: nonresidents	4.4	4.5	4.8	4.4	4.2	3.9	3.9
Return on assets	0.3	0.3	0.4	0.3	0.4	0.4	0.4
Return on equity	2.3	2.7	3.3	2.8	3.0	3.2	3.3
Interest margin to gross income	65.2	60.8	63.5	63.7	63.4	65.1	65.4
Non-interest expenses to gross income	64.5	63.6	61.7	64.7	60.7	59.6	58.2
Liquid assets to total assets (liquid asset ratio)	12.7	13.4	14.5	14.5	13.2	12.8	13.3
Liquid assets to short term liabilities	66.1	74.1	88.3	90.0	91.2	98.2	101.0

Note: 2017 data is the average from 2017Q1-Q3.

DCCBS: Domestically controlled cross-border, cross sector consolidation basis.

DC: Domestic consolidation basis.

DCCB: Domestically controlled, cross-border consolidation basis.

CBDI: Cross-border consolidation basis.

FBB: Foreign bank branch consolidation basis.

OTHER: Other consolidation basis.

NA: Not Applicable.

MIXED: Mixed.

Annex I. Risk Assessment Matrix[1]

Nature/Source of Risk	Overall Level of Concern	
	Medium-term Likelihood of Realization	**Expected Impact if Risk Materializes**
Retreat from cross-border integration	**Medium** Fraying consensus about the benefits of globalization leads to protectionism and economic isolationism, resulting in reduced global and regional policy and regulatory collaboration with negative consequences for trade, capital and labor flows, sentiment, and growth.	**Medium** A retreat from cross-border integration would have wide-ranging negative effects on trade, capital flows, growth, confidence, and global cooperation on financial regulation.
Policy uncertainty	**Medium** Two-sided risks to U.S. growth with uncertainties about the positive short-term impact of the tax bill on growth and the extent of potential medium-term adjustment to offset its fiscal costs; uncertainty associated with negotiating post-Brexit arrangements and NAFTA and associated market fragmentation risks; and evolving political processes, including elections in several large economies, weigh on global growth.	**Medium** Policy shifts could fuel global imbalances as well as FX and capital flow volatility.
Significant U.S. slowdown	**Medium** As the current recovery ages and vulnerabilities build up, the risks of a sharper-than-expected slowdown increase. The proximate causes could be a fiscal contraction associated with the eventual planned withdrawal of the tax stimulus or market fears of overheating.	**High** The output gap could close more abruptly, through a policy-induced recession which would have a negative impact on both the U.S. and the global economy.
Intensification of the risks of fragmentation / security dislocation	**High** Intensification of the risks of fragmentation/security dislocation in parts of the Middle East, Africa, Asia, and Europe, leading to socio-economic disruptions.	**Low** Adapting to changes to migration flows could pose challenges and could create negative spillovers to other countries.
Tighter global financial conditions	**High** Against the backdrop of continued monetary policy normalization and increasingly stretched valuations across asset classes, an abrupt change in global risk appetite (e.g., due to higher-than-expected inflation in the U.S) could lead to sudden, sharp increases in interest rates and associated tightening of financial conditions. Higher debt service and refinancing risks could stress leveraged firms, households, and vulnerable sovereigns, including through capital account pressures in some cases.	**Medium** A 10 percent dollar appreciation is estimated to reduce GDP by around 0.5 percentage points in the first year and 0.5-0.8 percentage points in the second year. The current account deficit would also widen by around 1 percent of GDP.
Structurally weak growth in key advanced economies	**High** Low productivity growth (U.S., euro area and Japan), high debt, and failure to fully address crisis legacies by undertaking structural reforms amidst persistently low inflation (euro area and Japan) undermine medium-term growth.	**Medium** A 1-percentage point decline in growth in advanced and emerging economies could subtract about 0.1 percentage points of U.S. GDP after two years. If disruption feeds into global financial markets or risk aversion the effect would be larger.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term (ST)" and "medium term (MT)" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

Significant China slowdown and its spillovers	**Low / Medium** While ongoing efforts by the Chinese authorities to "de-risk" the financial system are welcome, too fast an adjustment and improper sequencing of actions may adversely affect near-term growth (low likelihood). Over the medium term, overly ambitious growth targets, including by over reliance on credit stimulus and investment, lead to unsustainable policies, reducing fiscal space, further increasing financial imbalances. A sharp adjustment would weaken domestic demand, with adverse international spillovers, including a pullback in capital flows to EMs (medium likelihood).	**Medium** A 1-percentage point decline in growth in advanced and emerging economies could subtract about 0.1 percentage points of U.S. GDP after two years. If disruption feeds into global financial markets or risk aversion the effect would be larger.
Low energy prices	**Low** Driven by weakening OPEC/Russia cartel cohesion and/or recovery of oil production in the African continent.	**Low / Medium** With the level of U.S. oil investment already cut in half over the past 3 years, renewed price declines are unlikely to have strong effects on aggregate U.S. growth. However, solvency risk in the oil sector would rise.
Cyber-attacks	**Medium** Cyber-attacks on interconnected financial systems and broader private and public institutions that trigger systemic financial instability or widely disrupt socio-economic activities.	**High** Shock to critical infrastructure causes delay, denial, disruption, breakdown or loss of services, affecting many institutions that rely on the attacked hub. This could also lead to a loss of confidence in the functioning of the financial system.

	United States	Overall Assessment
Foreign asset and liability position and trajectory	**Background**. The net international investment position (NIIP) increased from -44.7 percent of GDP in 2016 to -40.5 percent of GDP in 2017 (but still somewhat below the average of -37.3 percent of GDP for the period 2012-2016), mostly due to valuation changes linked to the depreciation of the U.S. dollar by end-2017. Under staff's baseline scenario, the NIIP is projected to decline by about 8 percent of GDP over the next five years, due to a path of increasing current account deficits. **Assessment**. Financial stability risks could surface in the form of an unexpected decline in foreign demand for U.S. fixed income securities, which are the major component of the country's external liabilities. This risk has risen with the deterioration in the U.S. medium-term fiscal outlook, but remains moderate given the dominant status of the U.S. dollar as a reserve currency. Most U.S. foreign assets are denominated in foreign currency and around 65 percent are in the form of FDI and portfolio equity claims, the value of which tends to decline when global growth and stock markets are weak, and when the U.S. dollar appreciates.	**Overall Assessment**: *The U.S. external position was moderately weaker than implied by medium-term fundamentals and desirable policies in 2017.* The strengthening of the economy and the fiscal stimulus are expected to increase the CA deficit in the coming years, moving it further from the level justified by medium term fundamentals and desirable policies. Actual and prospective changes in trade, taxation, and immigration policies add substantial uncertainty to the assessment. **Potential policy responses**: Fiscal consolidation, to achieve a general government primary surplus of about 1¼ percent of GDP (a federal government primary surplus of about 1½ percent of GDP) will be necessary to put the debt-GDP ratio on a downward path and address the CA gap. Structural policies to strengthen export competitiveness and further reduce the CA gap include, within the tighter budgetary envelope, upgrading investment in transportation infrastructure, enhancing schooling and training of workers, supporting the working poor, and policies to increase growth in the labor force (including skill-based immigration reform). Trade and investment disagreements should be resolved without resorting to the imposition of tariff and non-tariff barriers.
Current account	**Background**. The U.S. CA deficit was unchanged between 2016 and 2017 at 2.4 percent of GDP, compared to a deficit of 2.1 percent of GDP in 2013. The deterioration was led by the non-oil balance, which reached a deficit of 2.0 percent of GDP in 2017 compared to a deficit of 0.6 percent of GDP in 2013. Two opposing forces have been at play in 2017: a depreciating dollar and stronger private investment growth. The CA deficit is expected to increase over the medium-term due to a stronger U.S. economy and the planned fiscal expansion, including the 2017 tax cuts. **Assessment**. The EBA model estimates a cyclically-adjusted CA of -2.2 percent of GDP, and a cyclically-adjusted CA norm of -0.7 percent of GDP. The cyclically-adjusted CA gap is -1.5 percent of GDP for 2017, reflecting policy gaps (-0.5 percent of GDP) and an unidentified residual (-1.0 percent of GDP). The External Sustainability Approach estimates a CA gap of -2.2 percent of GDP. On balance, staff assesses the 2017 cyclically-adjusted CA to be 1.0 to 2.0 percent of GDP lower than the level implied by medium-term fundamentals and desirable policies.	
CA Assessment 2017	Actual CA: -2.4 · Cycl. Adj. CA: -2.2 · EBA CA Norm: -0.7 · EBA CA Gap: -1.5 · Staff Adj.: 0.0 · Staff CA Gap: -1.5	
Real exchange rate	**Background**. The real effective exchange rate (REER) appreciated by about 18 percent between 2012 and 2016 but it depreciated by about 0.6 percent in 2017. As of May 2018, the REER has depreciated by about 3.5 percent relative to the 2017 average. **Assessment**. Indirect estimates of the REER (based on the EBA current account assessment) imply that the exchange rate was overvalued by 12 percent in 2017 (applying an estimated elasticity of 0.12). The EBA REER index model suggests an overvaluation of 8 percent, the EBA REER level model suggests an overvaluation of 14 percent, and the External Sustainability Approach estimates a REER overvaluation of 18 percent. Considering all the estimates and their uncertainties, staff assesses the 2017 average REER to be moderately overvalued, in the 8-16 percent range, compared to the level implied by medium-term fundamentals and desirable policies. The recent currency depreciation has reduced this gap.	
Capital and financial accounts: **flows and policy measures**	**Background**. Net financial inflows were about 1.8 percent of GDP in 2017, compared to 2.0 percent of GDP in 2016. Net portfolio investments and other investments increased by 0.2 and 0.8 percent of GDP, respectively, year over year, in 2017 but were partially offset by weaker net direct investments. **Assessment**. The U.S. has a fully open capital account. Vulnerabilities are limited by the dollar's status as a reserve currency with foreign demand for U.S. Treasury securities supported by the stronger outlook for the U.S. economy compared to key trading partners, the status of the dollar as reserve currency, and, possibly, by safe-haven flows.	
FX intervention and reserves level	**Assessment**. The dollar has the status of a global reserve currency. Reserves held by the U.S. are typically low relative to standard metrics. The currency is free floating.	

Annex III. Public Debt Sustainability Analysis

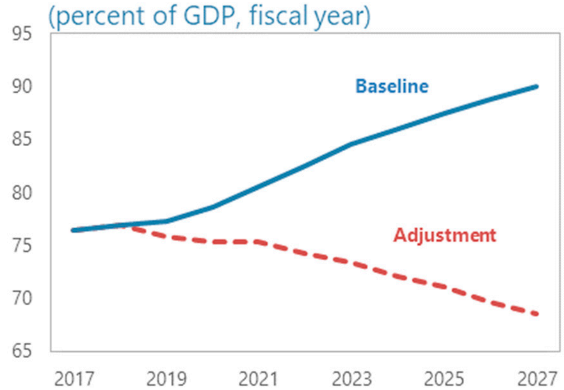
The U.S. budget deficit started rising in 2016, following a decline during 2010-15, and the U.S. public debt-to-GDP ratio is on an unsustainable path. Under the baseline scenario, public debt is projected to rise over the medium term, as age-related spending pressures on entitlement programs assert themselves and interest rates normalize. In addition, tax cuts and discretionary spending increases enacted since late-2017 are adding to the pressure on the U.S. public finances. Gross financing needs are large, but manageable given the global reserve currency status of the U.S. dollar. A credible medium-term fiscal adjustment featuring reprioritization of budget programs and revenue-gaining tax reform is needed to put public debt on a downward path.

1. **Background**. Significant fiscal consolidation measures were legislated in 2011–13 to tackle the high public debt ratio, which had doubled at the federal government level since 2007 because of the Great Recession and associate fiscal measures. The Bipartisan Budget Acts of 2013, 2015, and 2018 partially reversed the cuts scheduled to take place since FY2014, partially replacing them with savings generated through cuts to mandatory spending in later years. On the other hand, the Tax Act of 2015 and the Tax Cuts and Jobs Act of 2017, extended many tax cuts through the medium term and made some permanent, in addition to introducing new tax cuts. This will lead to higher deficits in the medium and long term.

2. **Baseline.** The staff's baseline is based on current laws. Under this baseline, public debt is projected to continue rising as age-related spending pressures on entitlement programs assert themselves and interest rates normalize. Federal debt held by the public is projected to increase from about 77.4 percent of GDP in 2017 to around 95.6 percent of GDP in 2027, with general government gross debt rising from about 107.8 percent of GDP to 120 percent of GDP during this period.

3. **Adjustment scenario.** The 2017 general government primary deficit was 2.5 percent of GDP. In staff's view, aiming for a medium-term general government primary surplus of about 1¼ percent of GDP (a federal government surplus of about 1½ percent of GDP) would be appropriate to put the public debt ratio firmly on a downward path. The target primary surplus would have to be larger to bring the debt ratio closer to pre-crisis levels by 2030.

Federal debt held by the public
(percent of GDP, fiscal year)



Source: IMF staff estimates.

4. **Debt servicing costs.** The fiscal projections benefit from the current favorable interest rate-growth differential. Reflecting accommodative monetary policy and the safe-haven status of the United States, real interest rates have fallen well below GDP growth. Under the staff's baseline, the effective interest rate is projected to rise gradually from the currently still low level of 1 percent and reach 3.7 percent by 2027 (which

is near its2006–16 average level). Thus, real interest rates will become a major debt-creating flow over the medium-term.

5. Realism. Baseline economic assumptions and fiscal projections are generally within the error band observed for all countries. While ambitious, the projected fiscal adjustment is realistic based on the consolidation episodes observed in 1990–2011.

6. Stress tests. The public debt dynamics are highly sensitive to growth and interest rate assumptions, primarily reflecting the fact that the U.S. public debt ratio already exceeds 100 percent of GDP. An increase of 200 basis points in the sovereign risk premium would raise the debt ratio to about 130 percent of GDP by 2027, about 10 percentage points of GDP above the baseline. Similarly, were real GDP growth to be one standard deviation below the baseline, the public debt would increase by about 10 percentage points above the baseline. A scenario involving a 1 percentage point of GDP larger fiscal deficit over the next two years would increase public debt by about 5 percentage points above the baseline in 2027. A combined macro-fiscal shock could raise the public debt ratio to as high as 145 percent of GDP by 2027. An exchange rate shock is unlikely to have important implications for debt sustainability in the United States given that all debt is denominated in local currency and the reserve currency status of the dollar.

7. Mitigating factors. The depth and liquidity of the U.S. Treasury market as well as its safe-haven status at times of distress represent a mitigating factor for relatively high external financing requirements.

Figure 1. United States: Public DSA-Baseline Scenario

(Percent of GDP, unless otherwise indicated)

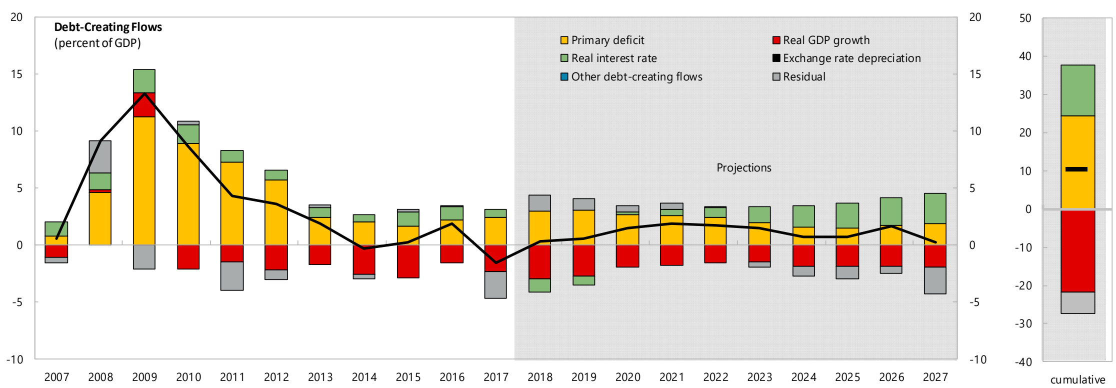
Debt, Economic and Market Indicators 1/

	Actual			Projections									
	2007–2015 2/	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Nominal gross public debt	93.3	107.2	105.6	105.9	106.5	108.0	109.9	111.6	113.1	113.8	114.6	116.2	116.5
Public gross financing needs	17.5	14.9	16.8	28.3	24.9	24.1	24.7	26.6	26.2	26.3	26.5	27.5	28.1
Real GDP growth (percent)	1.4	1.5	2.3	2.9	2.7	1.9	1.7	1.5	1.4	1.7	1.7	1.7	1.7
Inflation (GDP deflator, percent)	1.7	1.3	1.8	2.4	2.8	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Nominal GDP growth (percent)	3.0	2.8	4.1	5.4	5.6	4.0	3.8	3.7	3.5	3.9	3.9	3.9	3.9
Effective interest rate (percent) 4/	3.2	2.4	2.5	1.3	2.1	2.4	2.7	3.0	3.5	3.8	4.1	4.4	4.6

As of May 18, 2018		
Sovereign Spreads		
Spread (bp) 3/		222
CDS (bp)		9
Ratings	Foreign	Local
Moody's	Aaa	Aaa
S&Ps	AA+	AA+
Fitch	AAA	AAA

Contribution to Changes in Public Debt

	Actual			Projections											
	2007–2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Cumulative	Debt-stabilizing primary balance 9/
Change in gross public sector debt	4.6	1.9	-1.6	0.3	0.6	1.5	1.9	1.8	1.5	0.7	0.7	1.7	0.3	10.9	0.8
Identified debt-creating flows	4.9	1.8	0.8	-1.1	-0.4	1.0	1.4	1.7	1.9	1.6	1.8	2.3	2.7	12.8	
Primary deficit	5.0	2.2	2.5	3.0	3.1	2.6	2.6	2.4	2.0	1.6	1.5	1.7	1.9	22.4	
Primary (noninterest) revenue and grants	29.8	30.8	31.9	31.2	31.0	31.0	31.0	31.1	31.3	31.3	31.5	31.7	31.8	312.8	
Primary (noninterest) expenditure	34.7	33.0	34.4	34.2	34.0	33.6	33.5	33.6	33.2	32.9	33.0	33.4	33.7	335.2	
Automatic debt dynamics 5/	-0.1	-0.4	-1.7	-4.1	-3.5	-1.7	-1.2	-0.7	-0.1	0.0	0.3	0.6	0.8	-9.7	
Interest rate/growth differential 6/	-0.1	-0.4	-1.7	-4.1	-3.5	-1.7	-1.2	-0.7	-0.1	0.0	0.3	0.6	0.8	-9.7	
Of which: real interest rate	1.2	1.1	0.7	-1.2	-0.8	0.3	0.6	0.8	1.4	1.8	2.2	2.4	2.7	10.3	
Of which: real GDP growth	-1.3	-1.5	-2.3	-2.9	-2.7	-2.0	-1.8	-1.6	-1.5	-1.9	-1.9	-1.9	-1.9	-19.9	
Exchange rate depreciation 7/	0.0	0.0	0.0	…	…	…	…	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Net privatization proceeds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other liabilities (bank recap. and PSI sweetner)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes 8/	-0.3	0.1	-2.4	1.4	1.0	0.5	0.5	0.0	-0.4	-0.9	-1.1	-0.6	-2.4	-1.8	

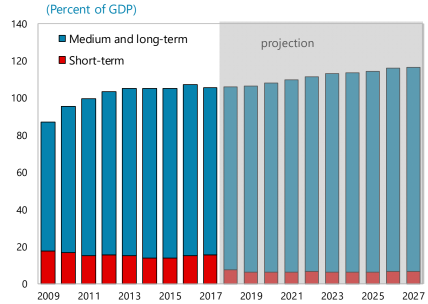


Source: IMF staff
1/ Public sector is defined as general government
2/ Based on available data
3/ Bond Spread over German Bonds
4/ Defined as interest payments divided by debt stock at the end of previous year
5/ Derived as [(r - p(1+g) - g + ae(1+r)]/(1+g+p+gp)) times previous period debt ratio, with r = interest rate; p = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation
6/ The real interest rate contribution is derived from the denominator in footnote 4 as r - π (1+g) and the real growth contribution as -g
7/ The exchange rate contribution is derived from the numerator in footnote 2/ as ae(1+r).
8/ For projections, this line includes exchange rate changes during the projection period. Also includes ESM capital contribution, arrears clearance, SMP and ANFA income, and the effect of deferred interest
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year

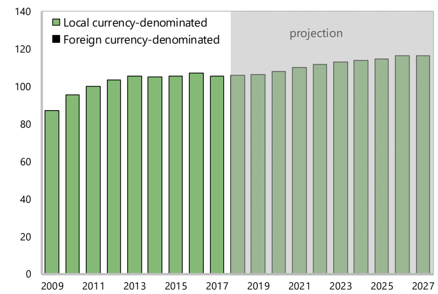
Figure 2. United States: Public DSA-Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(Percent of GDP)



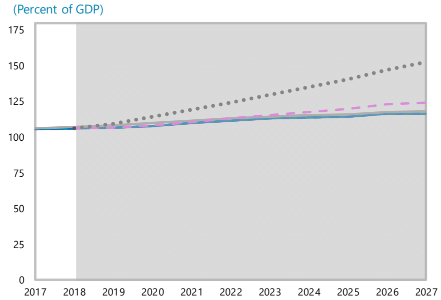
By Currency
(Percent of GDP)



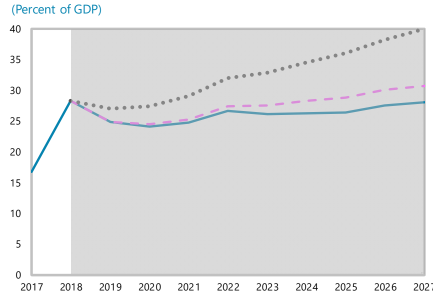
Alternative Scenarios

Baseline — Historical — Constant Primary Balance

Gross Nominal Public Debt
(Percent of GDP)



Public Gross Financing Needs
(Percent of GDP)



Underlying Assumptions
(Percent)

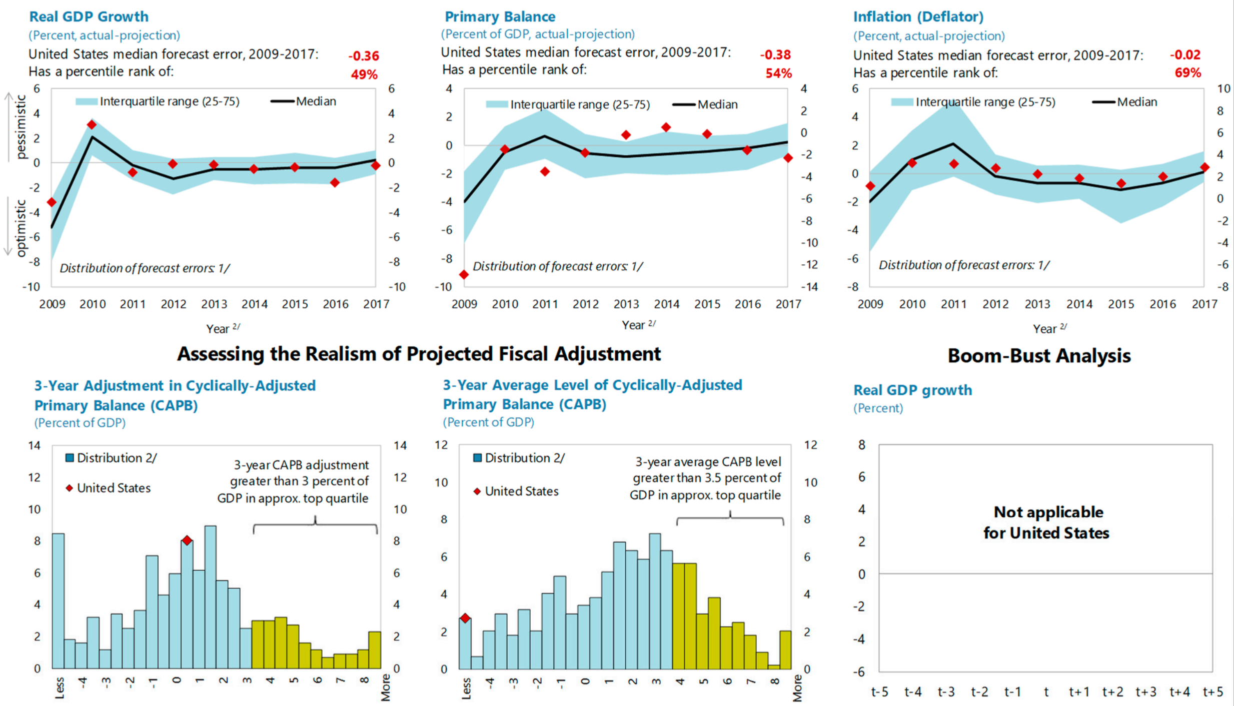
Baseline scenario	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Real GDP growth	2.9	2.7	1.9	1.7	1.5	1.4	1.7	1.7	1.7	1.7
Inflation	2.4	2.8	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-3.1	-2.6	-2.6	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.1	2.4	2.7	3.0	3.5	3.8	4.1	4.4	4.6
Constant primary balance scenario										
Real GDP growth	2.9	2.7	1.9	1.7	1.5	1.4	1.7	1.7	1.7	1.7
Inflation	2.4	2.8	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Effective interest rate	1.3	2.1	2.4	2.7	3.0	3.5	3.8	4.1	4.3	4.5

Historical scenario	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Real GDP growth	2.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Inflation	2.4	2.8	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9
Effective interest rate	1.3	2.1	2.7	3.2	3.7	4.3	4.7	5.1	5.3	5.5

Source: IMF staff

Figure 3. United States: Public DSA-Realism of Baseline Assumptions

Forecast Track Record, versus all Countries



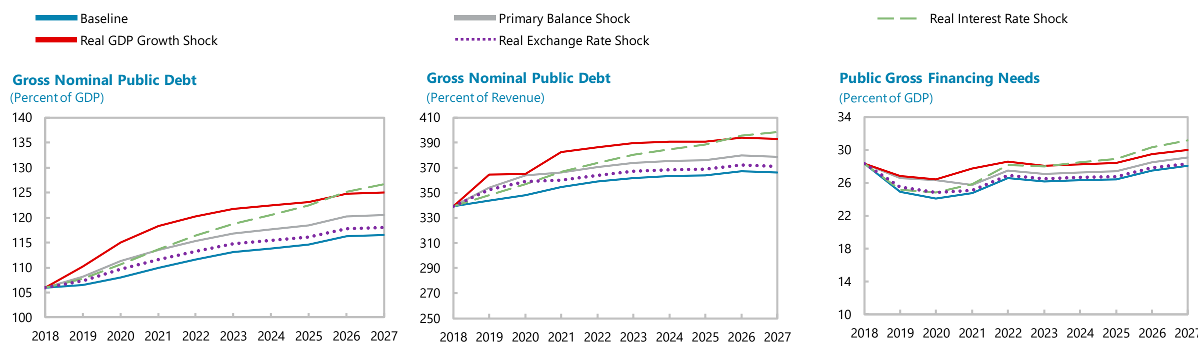
Source : IMF staff

1/ Plotted distribution includes all countries, percentile rank refers to all countries. Projections made in the spring WEO vintage of the preceding year

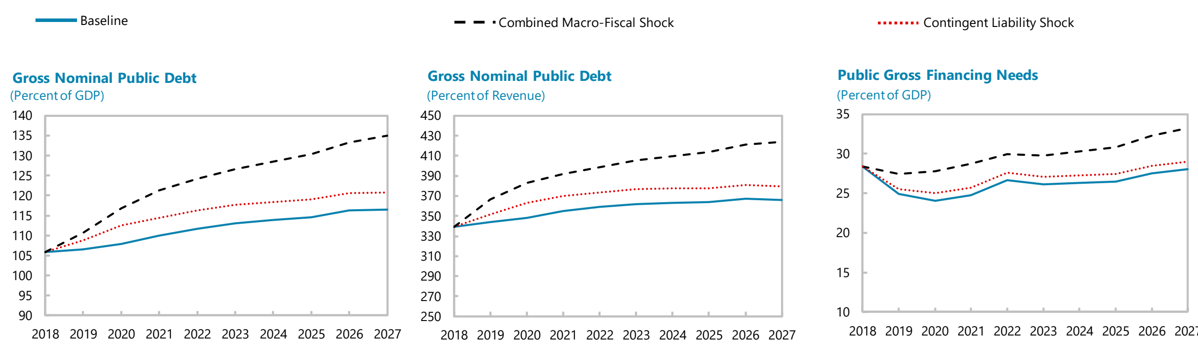
2/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis

Figure 4. United States: Public DSA-Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions

(Percent)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Primary Balance Shock										
Real GDP growth	2.9	2.7	2.0	1.7	1.5	1.5	1.8	1.7	1.7	1.7
Inflation	2.4	2.8	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-4.7	-4.3	-2.6	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.1	2.5	2.8	3.1	3.6	3.9	4.2	4.4	4.6
Real Interest Rate Shock										
Real GDP growth	2.9	1.5	0.9	1.1	1.1	1.2	1.5	1.5	1.5	1.5
Inflation	2.4	2.8	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-3.1	-2.6	-2.6	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.1	2.6	3.1	3.5	4.1	4.5	4.9	5.1	5.4
Combined Shock										
Real GDP growth	2.9	1.0	0.2	1.1	1.1	1.2	1.5	1.5	1.5	1.5
Inflation	2.4	2.4	1.6	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-5.1	-4.6	-4.0	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.1	2.7	3.1	3.6	4.1	4.6	4.9	5.2	5.4

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Real GDP Growth Shock										
Real GDP growth	2.9	1.0	0.2	1.7	1.5	1.4	1.7	1.7	1.7	1.7
Inflation	2.4	2.4	1.6	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-4.5	-3.6	-4.0	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.1	2.4	2.7	3.1	3.5	3.9	4.1	4.3	4.5
Real Exchange Rate Shock										
Real GDP growth	2.9	2.2	1.7	1.7	1.5	1.4	1.7	1.7	1.7	1.7
Inflation	2.4	3.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-3.6	-3.1	-2.6	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.1	2.4	2.7	3.0	3.5	3.8	4.1	4.3	4.5
Contingent Liability Shock										
Real GDP growth	2.9	1.0	0.2	1.7	1.5	1.4	1.7	1.7	1.7	1.7
Inflation	2.4	2.4	1.6	2.1	2.2	2.1	2.1	2.1	2.1	2.1
Primary balance	-3.0	-3.1	-2.6	-2.6	-2.4	-2.0	-1.6	-1.5	-1.7	-1.9
Effective interest rate	1.3	2.2	2.4	2.7	3.0	3.5	3.8	4.1	4.3	4.5

Source: IMF staff

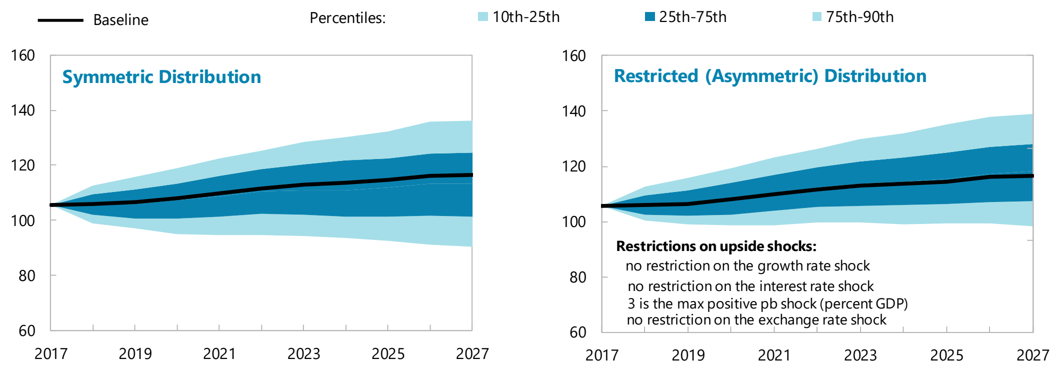
Figure 5. United States: Public DSA-Risk Assessment

Heat Map Baseline (2015-2025)

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

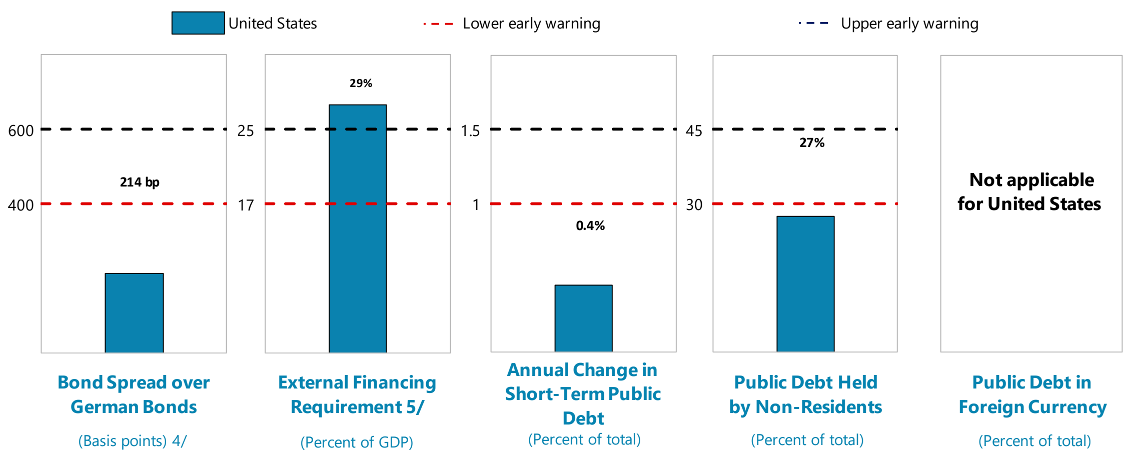
Evolution of Predictive Densities of Gross Nominal Public Debt

(Percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks)



Source: IMF staff

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.

Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents

4/ An average over the last 3 months, 17-Feb-18 through 18-May-18

5/ Includes liabilities to the Eurosystem related to TARGET

Annex IV. Implementation of FSAP Recommendations[1]

#	FSAP Recommendation	Developments	Status
	Macroprudential framework and policy		
1	Provide an explicit financial stability mandate to all FSOC member agencies	Several agencies continue to have no explicit legal mandate to support financial stability. As discussed in the 2015 FSAP, this can complicate their input to the Financial Stability Oversight Council (FSOC), and potentially undermines the response to the committee's recommendations and macroprudential coordination. While not all FSOC agencies within their existing authorities have an explicit legal mandate to support financial stability, they all continue to make progress toward financial reforms. Some FSOC agencies, however (including the U.S. federal banking agencies), have, as their responsibilities, key roles in maintaining financial stability.	Not implemented
2	Include in FSOC Annual Report specific follow-up actions for each material threat identified	The FSOC's 2015,2016, and 2017 Annual Reports discuss in a detailed manner each material threat identified, provides updates on regulations and other measures proposed or implemented in response to each threat, and outlines the research agenda. However, specific timelines and responsible agencies are not identified.	Partially implemented
3	Publish the current U.S. macroprudential toolkit and prioritize further development	The FSAP recommended that the FSOC should identify when macroprudential tools are needed, and promote the implementation of effective system-wide and time-varying macroprudential tools. The macroprudential toolkit remains to be centrally published, and a prioritization to be made.	Partially implemented

[1]For the summary of the bilateral repo data collection, see https://www.financialresearch.gov/data/repo-data-project/, for the summary of the securities lending data collection, see https://www.financialresearch.gov/data/securities-lending-data-collection-project/.

		The FSAP recommended further development and implementation of time-varying macroprudential tools, like the countercyclical capital buffer (CCyB): Necessary final steps on application triggers required to implement the CCyB should be completed; the scope to alter risk-weights on particular types of lending needs to be assessed; macroprudential tools could be used in the real estate sector (e.g. by varying maximum loan-to-value and debt-to-income ratios). In September 2016, the Federal Reserve (FRB) approved a final policy statement detailing the framework for setting the countercyclical capital buffer (CCyB). The policy statement provides background on the range of financial-system vulnerabilities and other factors the FRB may take into account as it evaluates settings for the buffer, including but not limited to, leverage in the nonfinancial and financial sectors, maturity and liquidity transformation in the financial sector, and asset valuation pressures. Due to the constantly evolving nature of economic and financial risks, the FRB is likely to adapt the range of indicators and models over time. The FRB has re-assessed the level of the CCyB annually since adopting the policy statement. Most recently, in December 2017, the FRB affirmed the amount of the CCyB at 0 percent.	
4	Expedite heightened prudential standards for designated non-bank systemically important financial institutions (SIFIs)	In 2015, the FRB adopted a comprehensive set of enhanced prudential standards (EPS) for General Electric Capital Corporation, Inc. (GECC), which was designated by the FSOC in July 2013 for Federal Reserve supervision. The EPS included capital and liquidity requirements, capital planning and stress testing requirements, financial risk management requirements, and restrictions on intercompany transactions between GECC and its parent. The FSOC rescinded the designation of GECC in June 2016 and AIG in September 2017. On June 3, 2016, the FRB approved an advance notice of proposed rulemaking (ANPR) inviting comment on conceptual frameworks for capital standards that could apply to systemically important insurance companies and to insurance companies that own a bank or thrift. The standards would differ for each population of insurance firms supervised by the FRB. In parallel, the FRB approved a notice	Partially implemented

		of proposed rulemaking to apply EPS for the systemically important insurance companies as designated by the FSOC. In line with the Dodd-Frank Act (DFA), these proposed standards would apply consistent liquidity, corporate governance, and risk management standards to the firms and require the firms to employ both a chief risk officer and chief actuary.	
5	Improve data collection, and address impediments to inter-agency data sharing	The Office of Financial Research (OFR) *Interagency Data Inventory* (IDI), which catalogues the data that FSOC member agencies purchase or collect from the industry or derive from other data, had its annual update in March 2017. FSOC member agencies use the inventory for identifying data gaps and for improving research and analysis but, due to specific restrictions to data sharing, the listing of data in the inventory does not necessarily signify that all FSOC member agencies have access to all data sets. In support of FSOC, OFR facilitated a review of data sharing agreements to identify areas for standardization (see OFR 2016 Financial Stability Report) OFR, along with the FRB, New York Federal Reserve, and the Securities and Exchange Commission (SEC) have completed pilot data collections about bilateral repurchase agreements (repos) and securities lending activity. The OFR has made the summary of findings publicly available on its website.[1] Steady progress in data collection and sharing is being made, including areas previously identified as those where more work needs to be done: (i) The collection of data on securities lending, and bilateral repos is still at an early stage; (ii) outstanding obstacles to interagency data sharing should be reduced, as recommended in the FSAP. Section 21(c)(7) of the Commodity Exchange Act directs swap data repositories to make swap data available to certain enumerated domestic authorities and any other entity the Commodity Futures Trading Commission (CFTC) determines to be appropriate, which may include certain types of foreign authorities. In 2011, the CFTC adopted rules implementing these statutory swap data access provisions by establishing processes by which various categories of entities could gain access to swap data held by swap data repositories. In January 2017, the CFTC issued a proposed rule to amend the	Partially implemented

		2011 access requirements such that certain authorities may obtain swap data access efficiently.	
	Regulation and supervision		
6	Give primacy to safety and soundness in the supervisory objectives of Federal Banking Agencies	The multi-agency framework, which is established by statute, continues to require coordination to avoid duplication of supervision that can potentially result in uncertainty for institutions when rules or guidance appear contradictory. The Federal Financial Institutions Examination Council (FFIEC) is a forum the agencies use to promote consistent approaches to bank supervision, which they also try to achieve through regular informal communication. By statute, consumer protection is the responsibility of the Consumer Financial Protection Bureau (CFPB) and the relevant federal banking agency. To ensure coordination, the federal banking agencies and the CFPB have a memorandum of understanding (MOU) in place that establishes a process to coordinate exam scheduling. The MOU also requires that exam reports be shared and comments considered for those institutions, prior to the report of examination being issued to the institution. The federal banking agencies' mandates are established by statute and have not been redefined since enactment of the DFA, and although safety and soundness have not been given primacy in their supervisory objectives to the exclusion of consumer compliance objectives, federal banking agencies examine for safety and soundness under the Uniform Financial Institutions Rating System.	Partially implemented
7	Strengthen the banking supervisory framework and limit structures for related party lending and concentration risk; and update guidance for operational and interest rate risk	*Concentration risk:* The FRB issued a final rule in November 2014, Regulation XX, to implement Section 622 of the DFA and establish a financial sector concentration limit. Regulation XX prohibits a financial company from merging or consolidating with, or acquiring control of, another company if the resulting company's liabilities would exceed 10 percent of the aggregate consolidated liabilities of all financial companies. In March 2016, the FRB proposed a rule to address *single-counterparty credit risk*. The proposal would apply credit limits to Bank Holding Companies (BHCs) with total consolidated assets of $50 billion or more. Specifically: (i) GSIBs would be restricted to a credit exposure of no more than 15 percent of	Partially implemented

		the firm's Tier 1 capital to another systemically important financial firm, and up to 25 percent of the firm's tier 1 capital to another counterparty; (ii) non-GSIB BHCs with $250 billion or more in total consolidated assets, or $10 billion or more in on-balance-sheet foreign exposure, would be restricted to a credit exposure of no more than 25 percent of the firm's tier 1 capital to another counterparty;. (iii) BHCs with $50 billion or more in total consolidated assets would be restricted to a credit exposure of no more than 25 percent of the firm's total regulatory capital to another counterparty; and (iv) BHCs with less than $50 billion in total consolidated assets, including community banks, would not be subject to the proposal. Similarly tailored requirements would also be established for the U.S. operations of foreign banks. However, comparable supervisory guidance on *other risk concentrations* remains to be issued. The separate and additional limits for money market investments and security holdings available to banks (but not federal savings associations) continue to leave open the possibility of excessive risk concentrations. In late 2015, the agencies issued guidance on commercial real estate lending, which includes, among other things, a discussion of the importance of managing concentration risk. *Guidance on operational risk and interest rate risk*: The agencies participated in the development of the Standardized Approach under the Basel III reforms and are revising US capital rules to move away from the AMA. The agencies have also issued a number of new pieces of guidance related to operational risk. The approach to interest rate risk in the banking book does not include specific capital charges or limits being set under Pillar 2. Consistent with the IRR standard issued by Basel in April 2016, US guidance with respect to IRR requires proper oversight of models and analysis of risk under a variety of scenarios. Data is collected at the regulatory level during examinations. *Limit structures for related party lending*: No progress has been made towards implementation of the FSAP recommendation.	

8	Set up an independent insurance regulatory body with nationwide responsibilities and authority	The supervisory and regulatory architecture for insurance firms has not changed.	Not implemented
9	Implement principle-based valuation standard for life insurers consistently across the states	State insurance regulators' Principle-based Reserving Valuation Manual has become operative on January 1, 2017 for the 45 States and territories that have already adopted the manual (but as of yet some States have not agreed on adopting the standard). Also, this does not automatically mean that standards will be fully harmonized across the States as risk models would still be approved at State level, and legislation leaves some room for interpretation.	Partially implemented
10	Develop and implement group supervision and group-level capital requirements for insurance companies	In April 2016, the FRB approved proposed consolidated financial reporting requirements for systemically important insurance companies designated by the FSOC. In June 2016, the FRB approved an advance notice of proposed rulemaking (ANPR) inviting comment on conceptual frameworks for capital standards that could apply to systemically important insurance companies and to insurance companies that own a bank or thrift. The standards would differ for each category of insurance firms supervised by the Board. Also in June 2016, the Federal Reserve Board approved a notice of proposed rulemaking to apply enhanced prudential standards for the systemically important insurance companies as designated by the FSOC. As required under the Dodd-Frank Act, these proposed standards would apply consistent liquidity, corporate governance, and risk management standards to the firms and require the firms to employ both a chief risk officer and chief actuary. State insurance regulators are working through the NAIC to develop a group capital calculation, which would be an additional analysis tool for regulators, but not a quantitative capital requirement. A timeline was developed in late 2016, outlining development work to continue throughout 2017 and 2018.	Partially implemented

		Regarding group supervision, as of June 2017, all 50 states, the District of Columbia and Puerto Rico, have adopted the updated NAIC model holding company act enhancing state insurance regulators' group supervisory authorities.	
11	Provide needed resources to the Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC) and enhance their funding stability	Information on SEC funding for Fiscal Year 2018, is available at https://appropriations.house.gov/uploadedfiles/03.21.18_fy18_omnibus_-_financial_services_-_summary.pdf. Information on CFTC funding for Fiscal Year 2018, is available at https://appropriations.house.gov/uploadedfiles/03.21.18_fy18_omnibus_-_agriculture_-_summary.pdf	Partially implemented
	Increase examination coverage of asset managers	The FSAP recommended that the SEC needs to be better equipped in order to be able to significantly increase the number of asset manager examinations from the current coverage of only around 10 percent of investment advisers per year. The SEC has continued to take two primary approaches to increasing examination coverage of registered investment advisers. First, the SEC allocated a significant number of new staff to its investment adviser/investment company examination program (IA/IC). Second, the SEC's examination program in fiscal year 2016 transitioned some resources from other parts of the program to IA/IC with a goal of increasing the size of the IA/IC program. SEC staff examined 11 percent of investment advisers in fiscal year 2016, 15percent of investment advisers in fiscal year 2017, and expects to examine 15percent of investment advisers in fiscal years 2018 and 2019.	Implemented
12	Introduce explicit requirements on risk management and internal controls for asset managers and commodity pool operators	The FSOC has actively reviewed potential risks to financial stability stemming from the asset management industry, and *in April 2016 published an update of its review of asset management products and activities* that expresses FSOC's views on certain matters relating to operational risk in the asset management industry (see further below). The SEC also adopted rules in October 2016 requiring open-end funds to have liquidity risk management programs with certain required elements (see further below).	Partially implemented

13	Complete the assessment of equity market structure and address regulatory gaps	Since the FSAP, the SEC has issued several significant proposals related to equity market structure that are related to the issues raised in the FSAP recommendations. Specifically, the SEC proposed to enhance operational transparency and regulatory oversight of ATSs. *See* http://www.sec.gov/rules/proposed/2015/34-76474.pdf In addition, the SEC approved the consolidated audit trail, which would enable regulators to efficiently track all trading activity in the U.S. equity and options markets. *See* https://www.sec.gov/rules/sro/nms/2016/34-79318.pdf. In addition, SEC staff continually evaluates equity market structure. For example, SEC staff recently announced a series of roundtables devoted to specific equity market structure topics. The first roundtable was held on April 23, 2018 and considered market structure issues for thinly-traded securities. https://www.sec.gov/spotlight/equity-market-structure-roundtables Finally, SEC staff analysis of market structure topics is published on the SEC website at http://www.sec.gov/marketstructure/	Implemented
	Stress testing		
14	Conduct liquidity stress testing for banks and nonbanks on a regular basis; run regular network analyses; and link liquidity, solvency, and network analyses	While the Comprehensive Capital Analysis and Review (CCAR) and DFA stress tests continue to take the form of supervisory solvency stress tests in which second-round effects are not explicitly incorporated, they are implicitly captured in a few ways. First, the macro scenarios are based on very severe recessions coupled with significant declines in asset prices. In the past, such recessions have been associated with very weak banking sectors, so the macro dynamics should reflect the amplification effects from the banking system. Second, the global market shock is based on the movements of asset prices in the second half of 2008, a period that saw the default of a SIFI and the distress of several systemically important institutions. Thus, market conditions should reflect the "second round" effects of the failure of a major financial company. Third, in implementing the default of the largest counterparty element, participating banks are instructed to compute outcomes if the counterparty whose default would cause the largest losses (under the market conditions described in the market shock) was to default. While this does not capture additional second-round effects beyond those described above, it does guarantee that the first-round effects are as large as possible.	Partially implemented

		Federal banking agencies finalized a rule implementing the *Liquidity Coverage Ratio* (LCR), and proposed a *Net Stable Funding Ratio* (NSFR) in 2016, both for bank holding companies with at least $50 billion in assets. Per definition, the LCR is a short-term liquidity stress test, and banks are expected to pass the underlying stress scenario on a continuous basis. The proposed NSFR would establish a quantitative metric that measures the stability of a firm's funding profile over a one-year timeframe. However, stress testing exercises, like the DFA stress tests or the CCAR, focus on credit and market risk, not on funding and market liquidity risk. Authorities do not yet conduct, on regular basis, liquidity stress tests on nonbanks. However, the SEC requires MMFs to conduct regular stress tests, including on their liquidity, and certain of the largest broker-dealers are providing additional information regarding their liquidity risk so SEC staff can better monitor the firm's management of that risk. The SEC also adopted rules in October 2016 requiring open-end funds to have liquidity risk management programs with certain required elements (see further below). *Network analysis, and integration with liquidity and solvency stress tests*. The DFA stress tests and the CCAR do not integrate different risk classes beyond credit and market risk. The tests look at banks individually, with contagion and spillover risks entering implicitly though the macro dynamics in the current scenarios rather than explicitly being assessed in the tests. Publicly available information suggests there is no supervisory requirement to integrate in a single framework different risk factors. OFR has conducted research on network models within the context of stress testing and contagion. The Federal Reserve conducts an annual review of the liquidity stress testing practices, liquidity position, and liquidity risk management practices of systemically important banking organizations. Under this program, supervisors assess the adequacy of firms' liquidity positions relative to their unique risks and test the reliability of these firms'	

		approaches to managing liquidity risk. The review provides a regular opportunity for supervisors to respond to evolving liquidity risks and firm practices over time. The supervisory review evaluates firms' liquidity positions both through a range of supervisory liquidity metrics and through analysis of firms' internal stress tests. The assessment includes an examination of the stress tests that each firm uses to make funding decisions and to determine its liquidity needs and an assessment of a range of liquidity risk management practices.	
15	Develop and perform regular insurance stress tests on a consolidated group-level basis	State insurance regulators assess the stress tests performed by insurance companies on a consolidated group-level basis through the Own Risk and Solvency Assessment (ORSA) under the Risk Management and Own Risk Assessment Model Act, which has been adopted by 47 states and will become an NAIC accreditation requirement on January 1, 2018. Though no macroprudential insurance sector stress testing is performed by regulators, the aforementioned group capital calculation timeline estimates development of a stress testing process could begin in the fall of 2017	Partially implemented
16	Develop and perform regular liquidity stress tests for the asset management industry	The FSOC has actively reviewed potential risks to financial stability stemming from the asset management industry, and *in April 2016 published an update to its review of asset management products and activities*. The update summarized the status of an almost two-year long review process, and provided the FSOC's view on areas that require specific attention. The report discussed three proposals issued by the SEC in 2015. The SEC proposals addressed enhanced data reporting for registered investment companies and for investment advisers regarding their separately managed account business; a strengthening of open-end funds' liquidity risk management and disclosure; and limits to leverage obtained through derivatives transactions by registered investment companies. The FSOC's review focused on five areas: liquidity and redemption risk; leverage risk; operational risk; securities lending risk; and firm resolvability and transition planning. As regards liquidity and redemption risks, the FSOC expressed its view regarding certain steps that should be considered to mitigate financial stability risks, including robust liquidity risk management practices for	Partially implemented

		mutual funds, particularly with regard to preparations for stressed conditions by funds that invest in less-liquid assets; the issuance of guidelines on funds' holdings of assets with very limited liquidity; enhanced reporting and disclosure; and the use of tools to allocate redemption costs more directly to investors who redeem shares. In October 2016, the SEC finalized certain aspects of its proposals. The SEC adopted rules requiring that open-end funds have liquidity risk management programs with certain required elements, including an assessment of a fund's liquidity risk that evaluates, among other things, the fund's investment strategy and liquidity of portfolio investments in both normal and reasonably foreseeable stressed conditions and the fund's cash flow projections in both normal and reasonably foreseeable stressed conditions. The rules further require that these funds disclose certain information regarding the liquidity of the funds' holdings and liquidity risk management practices. In October 2016, the SEC also adopted rules permitting open-end funds under certain circumstances to use swing pricing to pass on transaction costs to the shareholders associated with those transactions and to help funds manage liquidity risk. However, in February 2018, the SEC announced a delay of the compliance dates by six months for the asset liquidity classification and classification-related requirements of its liqudity risk management rules. In March 2018, the SEC proposed amendments to public liquidity-related disclosure requirements for certain open-end investment management companies. Under the proposal, funds would discuss in their annual reports the operation and effectiveness of their liquidity risk management programs, replacing a pending requirement that funds publicly provide the aggregate liquidity classification profiles of their portfolios on Form N-PORT on a quarterly basis.	
	Market-based finance and systemic liquidity		
17	Change redemption structures for mutual funds (MF) to lessen incentives to run; move	FSOC expressed its views on considering taking steps to allow and facilitate MFs' allocation of redemption costs more directly to investors who redeem shares. Such tools would help reduce first-mover advantage and mitigate the risk that	Partially implemented

	all money market mutual funds (MMMFs) to variable net asset value (NAV) approaches	less-liquid asset classes would be subject to fire sales under stressed conditions. It was further stated that regulators should consider assessing which tools could be effective in reducing first-mover advantage and determine the scope of application of such tools. FSOC welcomed the SEC's September 2015 proposed rule for MFs and ETFs designed to enhance liquidity risk management, provide new disclosures regarding fund liquidity, and allow MFs to adopt swing pricing to pass on transaction costs to entering and exiting investors. Regulators should consider issuing guidance on adequate risk management planning, and establish expectations regarding MFs' abilities to meet redemptions under a variety of extreme but plausible stressed market scenarios (stress testing). In October 2016, the SEC adopted rules requiring enhanced data reporting for registered investment companies and for investment advisers regarding their separately managed account business and mandated that open-end funds have liquidity risk management programs with certain required elements. The SEC also adopted rules permitting open-end funds under certain circumstances to use swing pricing to pass on transaction costs to the shareholders associated with purchases and redemptions and to help funds manage liquidity risk. *MMMFs and variable NAV:* IMF staff has long recommended the adoption of floating NAVs for MMMFs, which mandate the daily share prices of these funds to fluctuate with changes in the market-based value of fund assets. The new rules issued by the SEC require floating NAVs for institutional prime MMMFs but allow retail and government MMMFs to continue using an amortized cost method of pricing where constant NAVs are applied. For the latter group of MMMFs, the rules provide new tools—liquidity fees and redemption gates—to address potential runs but structural vulnerabilities remain. The rules were fully implemented in October 2016.	
18	Complete triparty repo (TPR) reforms and measures to reduce run-risk, including the possible use of a central clearing platforms (CCPs)	The underlying infrastructure of the TPR market, a key stress point in the global financial crisis, has been improved. The amount of intra-day credit extended to collateral providers has been reduced by over 95 percent as a result of changes in practice and process made to adhere to the reform roadmap. Also, clearing banks are now limited to funding a maximum of 10 percent of a dealer's notional tri-	Implemented

		party book through pre-committed lines (incurring a capital charge). Risk of fire-sales of collateral by a dealer losing access to repo or by a dealer's creditors: Although the risk of collateral fire-sales is reduced through the capital and liquidity regulations for broker-dealers, it remains a significant risk that warrants attention. Intraday counterparty risk exposure in the tri-party repurchase (repo) market contracted significantly in recent years. The potential for fire sales of collateral by creditors of a defaulted broker-dealer remains a significant risk. Additionally, data gaps continue to limit regulators' ability to monitor the aggregate repo market and identify interdependencies among firms and market participants. Regulators will need to monitor market responses to new SEC money market mutual fund (MMF) rules, which were fully implemented in October 2016, and assess where there may be unforeseen risks. Regulators also should monitor potential regulatory and data gaps associated with other types of cash management vehicles.	
19	Enhance disclosures and regulatory reporting of securities lending	In early 2016, the Office of Financial Research (OFR), FRB, and SEC completed a *joint securities lending data collection pilot*. The purpose of the pilot data collection was to collect information directly from seven securities lending agents that participated in the pilot project voluntarily. In April 2016, the FSOC expressed its view that without comprehensive information on securities lending activities across the financial system, regulators cannot fully assess potential financial stability risk, and encouraged efforts to propose and adopt a rule for a permanent collection of data on securities lending Relevant agencies continue to consult on these issues. In October 2016, the SEC adopted new reporting requirements for registered investment companies, which include information on their securities lending activities. However, in December 2017, the SEC voted to delay requirements regarding portfolio-level reporting for large investment companies from July 2018 to April 2019. Registered investment companies are required to comply with other reporting requirements, including requirements to provide	Partially implemented

		annual information regarding securities lending, on June 1, 2018.	
20	Strengthen broker-dealer regulation, in particular liquidity and leverage regulations	The U.S. authorities are tackling financial leverage through regulating financial products as well as the types of market participants (of which some are not subject to direct regulation): Broker-dealer requirements, like margin rules for securities transactions, central clearing of derivatives (fostering product standardization and increasing liquidity), as well as newly introduced margin requirements for uncleared swaps constitute important examples of regulatory and supervisory efforts. With respect to liquidity, the SEC proposed funding liquidity stress test requirements for broker-dealers approved to use VaR models to compute capital. In addition, certain of the largest broker-dealers are providing additional information regarding their liquidity risk so SEC staff can better monitor the firm's management of that risk. To reduce the financial stability risk potential of derivatives, US bank swap dealers are now required to collect and post margin on (almost) all swaps that cannot be centrally cleared. The use of uncleared derivatives is thereby made less attractive, and the requirements will encourage the use of standard derivatives that go through central clearinghouses. This measure also helps ensure that a default of a major OTC derivatives market participant would not bring down the system. In December 2015, the SEC *proposed rules on the use of derivatives by registered investment companies*, limiting leverage generated through derivatives, and requiring formalized risk management programs for funds with particularly complex derivatives structures. In October 2015, FRB, Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), Farm Credit Administration (FCA), and Federal Housing Finance Agency (FHFA) issued a *final rule on capital and margin requirements for common swap entities* (swap dealers, key swap participants, security-based swap dealers and participants). In parallel, the agencies issued another final rule that specified which non-cleared swaps and security-based	Partially implemented

		swaps are exempted from the general rule. Compliance with the initial margin and variation margin requirements was effective for the largest participants in September 2016. Variation margin became effective for the remaining participants in March 2017. Initial margin is to be phased-in each year through September 2020 for the remaining participants based on declining notional amounts In January 2016, the CFTC issued its final rule on margin requirements for uncleared swaps. The CFTC final rule on cross-border application of margin requirements was published in May 2016. Implementation of the CFTC's final regulations on margin requirements for swap entities not regulated for this purpose by a U.S. prudential regulator was initiated for initial margin on a phase-in basis starting on September 1, 2016 and was effective for variation margin as of March 1, 2017. In addition, the CFTC issued a comparability determination for Japan's and the European Union's margin requirements for uncleared swaps in September 2016 and October 2017, respectively.	
21	Improve data availability across bilateral repo/triparty repo and securities lending markets	The OFR's *Bilateral Repo Data Collection Pilot Project* aims at collecting data about bilateral repos (see above). Data on the triparty and GCF repo markets are published regularly. In October 2016, SEC adopted new reporting requirements for registered investment companies, which include information about their securities lending activities. However, in December 2017, the SEC voted to delay requirements regarding portfolio-level reporting for large investment companies from July 2018 to April 2019. Registered investment companies are required to comply with other reporting requirements, including requirements to provide annual information regarding securities lending, on June 1, 2018. Despite these efforts, considerably more work needs to be done with respect to data collection on securities lending where data is scarce. Also, information collection on securities lending and bilateral repos is still at an early stage.	Partially implemented

	Liquidity backstops, crisis preparedness, and resolution		
22	Revamp the Primary Credit Facility as a monetary instrument	The Federal Reserve is evaluating a number of key elements of its long-run operating framework and this idea is being studied as part of the project. At the FOMC's November 2016 meeting Federal Reserve staff discussed considerations regarding potential choices of operating regimes and the issue of stigma associated with borrowing from the discount window.	Not implemented
23	Enable the Fed to lend to solvent non-banks that are designated as systemically important	In November 2015, the Federal Reserve approved a *final rule specifying its procedures for emergency lending* under Section 13(3) of the Federal Reserve Act. Since the passage of the DFA in 2010, the FRB's emergency lending activity has been limited to programs and facilities with "broad-based eligibility" that have been established with the approval of the Secretary of the Treasury. The rule provides greater clarity regarding the FRB's implementation of limitations to emergency lending, and other statutory requirements. The final rule defines "broad-based" to mean "a program or facility that is not designed for the purpose of aiding any number of failing firms and in which at least five entities would be eligible to participate." These additional limitations are consistent with and provide further support to the revisions made by the DFA that a program should not be for the purpose of aiding specific companies to avoid bankruptcy or resolution. Solvent non-banks that have been designated as systemically important by the FSOC would be able to participate in these programs to the extent they satisfy the applicable facility eligibility requirements.	Partially implemented
24	Assign formal crisis preparedness and management coordinating role to FSOC	Crisis preparedness and management has not been formally assigned to the FSOC. Publicly available information suggests no progress has been made towards implementation of the FSAP recommendation. FSOC has been used as a forum for regulators to discuss certain fast-emerging topics including Brexit, Hurricane Sandy, and the bankruptcy of MF Global.	Not implemented
25	Extend the Orderly Liquidation Authority powers to cover systemically-important	Systemically important U.S. insurance holding companies can be resolved using Orderly Liquidation Authority (OLA) powers. The resolution of individual legal entity insurance company subsidiaries, however, falls to the State-based resolution regime, under which States have tools available to	Partially implemented

	insurance companies and U.S. branches of foreign-owned banks	address insurance company insolvencies and/or liquidations. The State-based resolution regimes related to the resolution of insurance company subsidiaries, which have tools available to address failed insurance companies through liquidation or runoff, have been successfully used in the past, but have not been tested on insurance company subsidiaries of a systemically important holding company. To the extent a foreign bank has branches in the United States, a Single Point of Entry resolution strategy generally would not affect such branches.	
26	Adopt powers to support foreign resolution measures; extend preference to overseas depositors	To the extent insured depository institutions enter resolution under the FDI Act, the depositor preference rules applicable to insured depository institutions can complicate effective coordination by potentially increasing the likelihood of ring-fencing of foreign branches by host authorities. However, host authorities could take mitigating action by requiring branches in their jurisdiction to amend deposit agreements to include statutorily required language that would extend preference to depositors of such branches.	Partially implemented
27	Finalize recovery and resolution plans for SIFIs, agree cooperation agreements with overseas authorities	Important steps have been made towards implementing effective recovery and resolution frameworks. The U.S. supervisory authorities place responsibility for the recovery planning process on the firm's senior management. The board of directors of the firm is responsible for oversight of the firm's recovery planning process. Recovery plans are updated at least annually. On September 29, 2016, OCC issued guidelines that establish enforceable standards for recovery planning by its supervised institutions with average total consolidated assets of $50 billion or more. The final guidelines provide that a covered bank should develop and maintain a recovery plan that identifies triggers, which are quantitative or qualitative indicators of the risk or existence of severe stress, and the breach of a trigger should always be escalated to senior management, the board of directors (board), or an appropriate committee of the board, as appropriate, for purposes of initiating a response. To identify triggers that appropriately reflect the particular vulnerabilities of a covered bank, the bank should design severe stress scenarios that	Partially implemented

		would threaten its critical operations or cause the covered bank to fail if one or more recovery options were not implemented in a timely manner. The plan should identify a wide range of credible options that a covered bank could undertake in response to severe stress to restore its financial strength and viability. A recovery plan should include an assessment and description of how each credible option would affect the covered ban and address escalation procedures, management reports, and communication procedures. To prepare for the implementation of its resolution authority under Title II of the Dodd-Frank Act, the FDIC has developed resolution plans for G-SIFIs and has included in each plan a resolution strategy and an operational plan that meet the standards set out in the applicable *Key Attributes* and relevant annexes thereto. Furthermore, the establishment of *living wills* is an essential requirement in the DFA, under which SIFIs and certain other firms are asked to design, and submit for review to the FRB and the FDIC, concise plans explaining their orderly resolution under bankruptcy. Since 2012, the FRB and the FDIC have reviewed several iterations of plans from U.S. BHCs and foreign banking organizations with at least $50 billion of consolidated assets and have issued substantial feedback. In December 2017, the FRB and the FDIC jointly issued feedback to the eight largest and most complex domestic BHCs concerning their most recent plans. The agencies noted that the U.S. G-SIBs have made substantial progress across numerous areas, and identified four areas in which more work will need to be done by all eight U.S. G-SIBs to continue to improve their resolvability: intra-group liquidity; internal loss-absorbing capacity; derivatives; and payment, clearing, and settlement activity. The next submissions from the U.S. G-SIBs are expected in July 2019. Firm-specific cooperation agreements that meet the standards set out in the relevant *Key Attributes* and relevant annexes thereto have been executed for all U.S. G-SIBs and for one U.S. G-SII.	

		In December 2016, the Federal Reserve Board approved a final rule that imposes total loss absorbing capacity (TLAC) and long-term debt requirements on the eight U.S. GSIBs and on the U.S. intermediate holding companies (IHCs) of foreign GSIBs. The final rule is consistent with the FSB TLAC standard, but is stricter in a few respects. The final rule also imposes clean holding company requirements on GSIBs.	
	Financial market infrastructures (FMIs)		
28	Identify and manage system-wide risks related to interdependencies among FMIs, banks, and markets	Progress has been made towards implementation of the FSAP recommendation. The Federal Reserve Board of Governors (FRB), the SEC, and the CFTC continue efforts to increase the resilience and recoverability of financial market infrastructures (FMIs), with particular emphasis on central counterparties (CCPs). U.S. authorities advanced domestic efforts and continued to extensively participate and contribute to numerous international work streams. Domestically, U.S. authorities have undertaken several important efforts, including the following: • U.S. authorities have adopted risk management standards for systemically important FMIs, including expectations for recovery and orderly wind-down planning. • With respect to recovery, U.S. authorities have implemented regulatory requirements for recovery plans, initial versions of which have been completed. Authorities are examining the viability and comprehensiveness of the completed plans. • The authorities also are actively engaging in resolution planning for systemic CCPs. In 2017, the FDIC and the CFTC co-hosted the inaugural crisis management group (CMGs) meetings for two U.S. systemic CCPs-the Chicago Mercantile Exchange and Ice Clear Credit, LLC. The next CMGs are scheduled for June 2018. • In September 2016, the CFTC issued final cybersecurity testing rules for FMIs and markets. International efforts include the following:	Implemented

		• The U.S. authorities participated in the Study Group in Central Counterparty Independencies (SGCCI), which was established by the Financial Stability Board (FSB), the International Organization of Securities Commissions (IOSCO), and the Basel Committee on Banking Supervision (BCBS) to identify, quantify and analyze interdependencies between CCPs and major clearing members. The results from the SGCCI's analysis were published in July 2017. • The U.S. authorities, as members of CPMI-IOSCO, participated extensively in the drafting of reports, at both the consultation and final stage, for the CPMI-IOSCO's Framework for Supervisory Stress Testing of CCPs, CPMI-IOSCO's Resilience of Central Counterparties (CCPs): Further Guidance on the PFMI, and Recovery of FMIs. The final versions were published in July 2017 (Resilience of CCPs and Recovery of FMIs) and April 2018 (the Framework for Supervisory Stress Testing for CCPs). U.S. authorities also contributed to CPMI-IOSCO's report on "Guidance on cyber resilience for financial market infrastructures" published in June 2016. • U.S. authorities are participating in the FSB work streams on resolution of CCPs and the continuity of access to FMIs for members in resolution. The FDIC co-chairs the FSB work stream on CCP resolution, which published in July 2017 "Guidance on Central Counterparty Resolution and Resolution Planning."	
	Offer Fed accounts to designated Financial Market Infrastructures (FMUs) to reduce dependencies on commercial bank services	By December 2017, requests from designated Financial Market Infrastructures have been authorized by the Federal Reserve Banks of Chicago and New York. As of May 1, 2018, there are no outstanding requests. The following five U.S. clearinghouses have been authorized to open accounts at the central bank: ICE Clear Credit, CME Inc., the Options Clearing Corporation, the National Securities Clearing Corporation, and the Fixed Income Clearing Corporation. The measure has been possible because these clearing houses have been designated as systemically important utilities.]	Implemented
	Housing finance		
29	Reinvigorate the momentum for	Housing finance and the U.S. housing market have not been reformed comprehensively.	Not implemented

	comprehensive housing market reform	To date, no legislative or executive action has been taken to reduce substantially the footprint of Fannie Mae and Freddie Mac ("Enterprises"). However, as conservator, the Federal Housing Finance Agency (FHFA) has required market-based credit risk transfers from the Enterprises to the private sector at an increasing level since 2013. The Enterprises have also jointly developed a common securitization platform and have announced that they will issue a new uniform mortgage-backed security starting June 2019. These Enterprise reforms have been accomplished administratively and have not reformed the entire housing finance system, which would require legislative action. Since 2015, the FHFA has directed the Enterprises to fund the Housing Trust Fund and Capital Magnet Funds (as required by the 2008 Housing and Economic Recovery Act) by transferring a portion of total new acquisitions to these funds, which are administered by the Department of Housing and Urban Development and Treasury Department, respectively. FHFA has the discretion to suspend the Enterprise allocations to the affordable housing funds, including the Housing Trust Fund, if the allocations are contributing to the Enterprise's financial instability. Moreover, the Senior Preferred Stock Purchase Agreements (PSPA's) are sources of strength for the Enterprises. Indeed, the PSPA's between the Treasury and each Enterprise both ensure the ability of each Enterprise to meet its financial obligations and to ensure that they will have minimal net worth as all profits above the capital reserve amount are transferred to Treasury each quarter. The capital reserve amount had been declining by $600 million per year and was scheduled to decline to $0 on January 1, 2018. However, on December 21, 2017, FHFA and the Department of the Treasury agreed to reinstate a $3 billion capital reserve amount for each Enterprise to prevent draws on the PSPA due to fluctuations in the Enterprises' income due to the normal course of business. Despite the new capital reserve, the December 2017 tax cuts caused the Enterprises to draw a combined total of $4 billion at the end of that quarter. Policymakers have been evaluating and developing a potential comprehensive overhaul of the mortgage finance system over ten years after the federal government took control of Fannie Mae and Freddie Mac that could shrink or eventually close the two entities and create a system with	

		more private capital. The Congressional Budget Office (CBO) has provided analyses on these issues. One such analysis prepared at the request of the Chairman of the House Committee on Financial Services, analyzed alternatives for attracting more private capital to the secondary mortgage market and alternative structures for that market, including a fully federal agency, a hybrid, public-private market, a market with a government guarantor of last resort, and a largely private secondary market. In 2018, the U.S. Senate passed The Economic Grown, Regulatory Relief and Consumer Protection Act (S. 2155), which has emphasized providing regulatory relief for small banks and credit unions and amending the Dodd-Frank Act. Moreover, on June 12, 2017, the Department of the Treasury published a comprehensive report containing recommendations for the financial regulation of banks and credit unions ("A Financial System that Creates Economic Opportunities: Banks and Credit Unions").	

INTERNATIONAL MONETARY FUND

UNITED STATES

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

June 14, 2018

Prepared By | The Western Hemisphere Department (in consultation with other departments)

CONTENTS

FUND RELATIONS

(As of April 30, 2018)

Membership Status: Joined: December 27, 1945; Article VIII

General Resources Account:	**SDR Million**	**Percent of Quota**
Quota	82,994.20	100.00
IMF's Holdings of Currency (Holdings Rate)	74,462.41	89.72
Reserve Tranche Position	8,540.17	10.29
Lending to the Fund		
New Arrangements to Borrow	3,773.36	

SDR Department:	**SDR Million**	**Percent of Allocation**
Net cumulative allocation	35,315.68	100.00
Holdings	36,439.53	103.18

Outstanding Purchases and Loans: None

Financial Arrangements: None

Projected Payments to Fund [1/]

(SDR Million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2018	2019	2020	2021	2022
Principal					
Charges/Interest		0.59	0.59	0.59	0.59
Total		0.59	0.59	0.59	0.59

[1/] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Rate Arrangements. The exchange rate of the U.S. dollar floats independently and is determined freely in the foreign exchange market. The United States has accepted the obligations under Article VIII, Sections 2(a), 3 and 4 of the IMF's Articles of Agreement and maintains an exchange system free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions, except for those measures imposed for security reasons. The United States notifies the maintenance of measures imposed for security reasons under Executive Board Decision No. 144–(52/51). The last of these notifications was made January 10, 2018.

Article IV Consultation. The 2017 Article IV consultation was concluded on June 16, 2017 and the Staff Report was published as IMF Country Report No. 17/239. A fiscal Report of Observance of Standards and Codes was completed in the context of the 2003 consultation. The 2018 Article IV discussions took place in New York (April 25-27) and Washington D.C. (May 1-17). Concluding meetings with Chair Powell of the Board of Governors of the Federal Reserve System, and Treasury Secretary Mnuchin occurred on June 6 and June 7, respectively. The Managing Director, Ms. Lagarde, the Deputy Managing Director, Mr. Zhang, and WHD Director, Mr. Werner, participated in the concluding meetings. A press conference on the consultation was held on June 14, 2018. The team comprised Nigel Chalk (head), Yasser Abdih, Ali Alichi, Emanuel Kopp, Daniel Leigh, Suchanan Tambunlertchai, Peter Williams (all WHD), Celine Rochon and Russell Green (SPR). Mr. Mauricio Claver-Carrone (Executive Director), Ms. Patricia Pollard (Senior Advisor), and Mr. Stephan Vitvitsky (Advisor) attended some of the meetings. Outreach included discussions with Congressional staff, U.S. Chamber of Commerce, private sector representatives, and think tanks. Unless an objection from the authorities of the United States is received prior to the conclusion of the Board's consideration, the document will be published.

STATISTICAL ISSUES

Statistical Issues. Comprehensive economic data are available for the United States on a timely basis. The quality, coverage, periodicity, and timeliness of U.S. economic data are adequate for surveillance. The United States adheres to the Special Data Dissemination Standard Plus and its metadata are posted on the Dissemination Standards Bulletin Board.

United States: Table of Common Indicators Required for Surveillance
(As of June 8, 2018)

	Date of latest observation	Date received	Frequency of data[1]	Frequency of reporting[1]	Frequency of publication[1]
Exchange rates	Same day	Same day	D	D	D
International reserve assets and reserve liabilities of the monetary authorities[2]	2018 M5	May 18	M	M	M
Reserve/base money	May 31	May 31	W	W	W
Broad money	May 31	May 31	W	W	W
Central bank balance sheet	May 30	May 31	W	W	W
Interest rates[3]	Same day	Same day	D	D	D
Consumer price index	2018 M4	May 10	M	M	M
Revenue, expenditure, balance and composition of financing[4]—general government[5]	2018 Q1	May 30	Q	Q	Q
Revenue, expenditure, balance and composition of financing[4]—central government	2018 M4	May 10	M	M	M
Stocks of central government and central government-guaranteed debt	2018 M4	May 4	M	M	M
External current account balance	2018 Q1	May 30	Q	Q	Q
Exports and imports of goods and services	2018 M4	May 11	M	M	M
GDP/GNP (2nd release)	2018 Q1	May 30	Q	M	M
Gross External Debt	2017 Q4	March 31	Q	Q	Q
International Investment Position[6]	2017 Q4	March 30	Q	Q	Q

[1] Daily (D), Weekly (W), Biweekly (B), Monthly (M), Quarterly (Q), Annually (A); NA: Not Available.
[2] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[3] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[4] Foreign, domestic bank, and domestic nonbank financing.
[5] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.

Statement by Mr. Mauricio Claver-Carone and
Mr. Stephan Vitvitsky on United States
June 29, 2018

The U.S. economy is on an improved growth trajectory, supported by tax reform, deregulation, and a pro-growth economic policy agenda that will raise U.S. productivity and strengthen labor force participation. Year-to-date economic indicators point to an economy that will expand by around 3.0 percent this year. Job growth has averaged approximately 200,000 per month over the first half of this year. Unemployment has continued to decline and, at 3.8 percent in May, is the lowest since 1969. Business investment has accelerated notably since late 2016, with year-over-year growth rising steadily over six consecutive quarters. Consumer sentiment remains buoyant and inflation has firmed, gradually climbing to levels at or near the Federal Reserve's target. In this context, we agree with Fund's staff view that "the near-term outlook for the U.S. economy is one of strong growth and job creation."

However, we significantly disagree with the IMF's real GDP growth projections in 2020 and beyond, its potential GDP estimates, and its long-term fiscal projections. We believe that staff understate the positive longer-term impact of tax reform and deregulation. The tax reform's lower corporate tax rate, temporary new investment expensing provisions, and deductions for pass-through businesses will boost business investment and, along with other changes, catalyze more efficient capital allocation. Regulatory relief and other pro-growth initiatives will improve the business climate. Additionally, the Administration plans to reduce nondefense discretionary (NDD) spending over time that, together with a growing economy, will put the nation on a sounder fiscal path and reduce public debt as a share of GDP. Altogether, the Administration's economic policies will spur greater investment in facilities and workers, boost productivity and wage growth, and draw more workers into the labor force. These deeper structural reforms will lift the U.S. economy to a higher sustained growth path.

That said, we welcome Fund staff's independent and candid views on the U.S. economy.

Economic Projections: Our authorities expect real GDP growth to be 3.1 percent in 2018, remaining slightly above 3.0 percent through 2020. Although the IMF's projections for 2018 and 2019 (2.9 and 2.7 percent) are slightly lower than ours, we broadly agree with Fund staff views on the near-term economic outlook.

Fund staff project much lower growth from 2020 onwards, in large part due to the temporary nature of some of the tax provisions. We believe that the Fund's model underestimates the longer-term growth effect of the new tax law by focusing on its fiscal mechanics rather than the structural change. According to staff, the key features of the bill are "fiscal stimulus" in the early years followed by "fiscal tightening" in later years.

This approach misses the purpose of the tax reform, which is to promote structural changes that boost economic growth. The effect of tax cuts, temporary full expensing provisions, and regulatory relief comes from businesses responding to the policy changes. The tax cuts and temporary full expensing provision will incentivize large-scale capital investment, which will boost the quantity and quality of the overall capital stock. The Administration's infrastructure investment plans will also substantially improve the capital stock over time. Finally, the Administration's deregulation agenda – aimed at increasing dynamism in the community banking sector, the energy sector, and labor markets – will interact with higher quality human and physical capital to lead to a sustained increase in productivity growth.

Lowering the corporate tax rate also provides incentives for managers to focus more on creating profitable businesses, deepening the private capital stock, and investing in their work forces. The new law also provides smaller pass-through businesses with up to a 20 percent tax deduction, helping them compete with big companies and enhancing their ability to hire and train workers new to their industry. Altogether, these changes will raise productivity growth and strengthen labor force participation, counter the effect of demographic changes, and enhance human capital.

Fiscal Policy: Anchored by tax reform, our fiscal policy strategy supports growth and is oriented to address medium-term challenges. The Administration's budget priorities also aim to better control federal spending, particularly NDD expenditures, while allocating greater federal outlays for defense and supporting greater infrastructure spending. The December 2017 comprehensive personal and corporate tax reform was the most significant reform since 1986. Core elements of the tax plan include the following:

- A reduction in the U.S. corporate tax rate from 35 percent to 21 percent. For many years, the United States had the highest corporate tax rate among major economies, which discouraged investment in the United States. The 21 percent rate is slightly below the OECD average and is not a "race to the bottom." Instead, since the new rate is accompanied by tax reform and changes in international tax provisions, it could stimulate a race to better policies globally.

- The alignment of the U.S. international tax system with the territorial systems of most U.S. trading partners and implementation of many recommendations from the G-20/ OECD BEPS project, consistent with the theme of combating stateless income.

- Imposition of a U.S. tax on low-taxed excess earnings of controlled foreign corporations of U.S. parented groups on which U.S. tax was previously deferred, as well as limitation of base erosion via interest and other deductible payments, both of which are consistent with BEPS goals.

- Simplification of the personal tax system and temporarily lowering marginal tax rates across all income levels, with the largest benefits for the middle class. The bill also reforms the burdensome Alternative Minimum Tax, almost doubles the standard deduction, and bolsters the child credit system to support working families.

The FY 2019 Budget projects a deficit of 4.7 percent of GDP in FY 2019, a moderate increase from the estimated 4.2 percent of GDP for FY 2018. Over the ten-year budget window, the Administration's proposals aim to reduce NDD spending by over 40 percent in real terms, and restrain spending in mandatory programs, including by reforming health care. We recognize these objectives will require considerable effort.

Additionally, the Administration's infrastructure plan adds $200 billion in federal spending over FY 2019-2028, aimed at generating $1.5 trillion in overall public and private investment. Of the $200 billion in the infrastructure initiative, $100 billion will create an Incentives Program that matches states/localities up to 20 percent for new dedicated revenue streams for qualified infrastructure investments. These measures will improve the U.S. overall capital stock and thereby boost potential growth. Higher growth will fuel higher government revenues, which, coupled with a decline in NDD spending, will put the headline deficit on a downward path as a percent of GDP.

Monetary Policy: The Federal Reserve continues to make progress toward its goal of maximum employment and price stability. The labor market has continued to strengthen, with the unemployment rate falling to 3.8 percent in May from 4.3 percent a year earlier. Job gains have been strong in recent months, while wage growth has moderately increased. Broad measures of labor market slack have also fallen, though the degree of slack remains somewhat inconclusive.

Inflation has moved up from a year ago, with personal-consumption expenditure inflation close to the Federal Open Market Committee's (FOMC) target of 2.0 percent. The FOMC judges that the economy will continue to expand at a moderate pace over the medium-term and that labor market conditions will remain strong. Inflation is expected to run near the FOMC's 2.0 percent objective over the medium-term, and risks to the economic outlook appear balanced.

The FOMC expects that improving economic conditions will warrant further gradual federal funds rate increases to sustain a healthy labor market and stabilize inflation around its target. According to the FOMC, the stance of policy remains accommodative. At the same time, the FOMC has repeatedly stated that the monetary policy path is not on a preset course and will remain data dependent. The FOMC remains committed to clear policy communication.

Furthermore, the FOMC began implementing a balance sheet normalization program last fall. The approach has been well-communicated and has been implemented in a regular and predictable manner. The balance sheet is not intended to be an active tool for monetary policy in normal times, while the FOMC is prepared to adjust the details of its approach to policy normalization considering economic and financial developments.

Financial Regulation: The President recently signed the Economic Growth, Regulatory Relief, and Consumer Protection Act. This legislation modernizes and recalibrates financial regulation to help banks, particularly community and regional banks, more efficiently and effectively allocate capital to businesses and consumers. This bill strikes the appropriate balance between addressing risks to the financial system and facilitating economic growth.

More broadly, we believe that the U.S. financial system is on strong footing, with moderate financial stability risks. Most large U.S. banks remain well-capitalized and highly liquid, and reliance on short-term wholesale funding has continued to decline. Higher valuation pressure across a range of asset markets has not been accompanied by increased leverage in the financial sector. Recent financial market volatility has not materially impacted financial sector soundness, and large financial institutions are well positioned to absorb further financial market stress should it materialize.

Trade/External Sector: The United States has one of the most open trade policy regimes and economies in the world. We seek to promote fair and reciprocal trade, and to press for a level playing field for U.S. firms. Importantly, the Administration believes that all countries should remove barriers to trade.

However, the Administration has clearly articulated that the United States will no longer accept being in a position in which the unfair practices of our trading partners harm U.S. firms and workers. To that end, policies are intended to address circumstances where injurious market distortions have occurred; where critical U.S. national security concerns are relevant; or where the playing field for U.S. firms and workers is otherwise not level.

The Administration's trade policy agenda seeks to address serious, long-term challenges that have been facing the multilateral trading system. We strongly disagree with Fund staff's assessment that our recent trade measures would move the globe further from an open, fair, and rules-based trade system. Instead, the Administration's trade policies seek to move the global economy closer to a free, fair, and reciprocal trading system.

Competition Policy: We note Fund staff's focus on competition issues and policy in the United States, which we believe deserve academic attention by the relevant experts At the same time, we disagree with staff's approach to the topic and their conclusions. Evidence pointing to a broad trend in increased market power is inconclusive. We note that this is a developing literature, and not all researchers have found the markups to be trending upward. Further, analysis on higher estimated markups does not necessarily provide a reliable measure of market power. A higher estimated markup also could be the result of costs being driven down, with some portion of the marginal cost savings passed through to consumers.

Moreover, the relationship between higher markups and competition policy is unclear, making it difficult to define any policy implications, including staff's recommended tax scheme. We do not see a strong economic argument for imposing a tax that could discourage firms from lowering their costs to their own benefit and that of their customers.