Economic Outlook:

“Moderate” Recovery Prompts Further Fed Action

April 2018

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Fed Raises Rates at March Meeting
Historically Low Rates

Fed raises rates 25bps to a range of 1.50% to 1.75% at latest March meeting, the sixth rate hike since liftoff in December 2015

Fed raised rates 25bps to a range of 1.25%-1.50% at December 2017 meeting, the third rate increase in 2017 (March & June)

Fed raised rates 25bps to 0.75% in December 2016 after seven consecutive meetings of unchanged policy

Source: Federal Reserve Board / Haver Analytics
Focus Shifts to “Normalize” Balance Sheet

UST: Cap of $6bn per month increased by $6bn every quarter until it reaches $30bn in October 2018

2017 monthly avg. Fed purchases of UST: $16.82bn

MBS: Cap of $4bn per month increased by $4bn every three months until it reaches $20bn

2017 monthly avg. Fed purchases of MBS: $25.07bn

*Other includes discount window lending; lending to other institutions; assets of limited liability companies (LLCs) that have been consolidated onto the Federal Reserve’s balance sheet; and foreign currency holdings associated with reciprocal currency arrangements with other central banks (foreign central bank liquidity swaps).
An increase on both sides of the Fed’s balance sheet, as the Fed purchased bonds from primary dealers in reverse auctions but paid for them by essentially making a ledger notation in the dealers' reserve accounts.

Essentially an equivalent impact had the Fed mandated purchases by the banks themselves.
“Moderate” Growth
U.S. GDP in Q4 rose **2.9%** following a 3.2% rise in Q3

Illinois GDP rose 3.5% in Q3, a two-year high*

U.S. growth in 2017 averaged 2.6%

4Q avg U.S. GDP: 2.6% in Q4 vs. 2.3% in Q3

2015 avg growth: 2.0%
2016 avg growth: 1.9%
2017 avg growth: 2.6%

*Data as of Q3 2017
2.2% average growth in the U.S. since the Great Recession, the lowest average growth rate compared to previous recoveries.

Source: NBER/ Haver Analytics
GDP Forecast

The Fed increased its 2018 GDP forecast to 2.7% from 2.5% and its 2019 GDP forecast to 2.4% from 2.1% in the latest March SEP.
“Strong” Job Gains
Job Growth Continues Downward Trend

90 consecutive months of positive payroll growth

March payrolls rose **103k**, a six-month low, and following a 326k gain in February

12-month average rose from 186k to **188k** in March, a seven-month high

Above 200k in April, June, August, October & November 2017

On a 6-month average basis, the trend has slowed from 250k in 2014 to 232k in 2015 to 203k in 2016 to 169k in 2017
The recovery has been notably uneven across state lines.

States in the Central Plains were among the earliest states to reach and surpass their previous peaks in employment.

Several states in the Deep South and West are among the slowest labor markets to recover.
Uneven Growth Across Industries

While certain sectors clearly remain at the forefront of such “improvement,” other sectors, such as retail, for example, have emerged as a source of weakness with job creation slowing noticeably.

Business services has experienced the most robust growth, adding nearly 500k payrolls in the past 12 months, while information services has been the worst performing sector, shedding more than 62k jobs over the past 12 months.

Source: Haver Analytics
Unemployment remained at 4.1% in March for the sixth consecutive month, the lowest since December 2000.

The unemployment rate has been well within the Fed’s full employment range since October 2014 and now falling below the Fed’s target range since March 2017.

Illinois unemployment rate at 4.7% as of February, the lowest since March 2007 and further below the 11.3% peak in December 2009.

Source: Bureau of Labor Statistics

*Data as of February 2018
Participation rate at a multi-decade low, **62.9%** in March

The prime-age participation rate while improved from a low of **80.6%** in September 2015, remains depressed at **82.1%** in March, a multi-decade low

20-55 year olds account for the majority of the decline in the labor force, **8.0m** Americans (only **59%** of working age population)
Gains in Household Spending Have “Moderated”
March sales rose 0.6%, the largest monthly increase since November

Y/Y sales rose 4.5% vs. 4.1% in February

Excluding autos, sales rose 0.2% in March and 4.5% Y/Y, down from 4.7% in February

Control group*
March sales rose 0.4% Y/Y up 3.8% in March following a 4.1% increase in February

Six months of flat or negative sales since end of Q1 2017

*Control group excludes auto, building materials, & gas stations sales

Source: Census Bureau /Haver Analytics
Consumer credit rose by $10.60 billion in February, a five-month low, and following a $15.59 billion increase in January.

The six-month average fell from $18.29 billion to $17.78 billion in February, a three-month low.
Revolving consumer credit lines, which primarily reflect credit cards, slowed dramatically.

On an annual basis, total outstanding revolving credit rose just 0.2% in February, the lowest monthly reading since November 2013.
Savings on the Decline

The personal savings rate is at 3.4% as of February, up from 3.2% reported in January and a six-month high.

The savings rate averaged 6.0% 2009-2015 and 4.1% thereafter.

Source: Bureau of Economic Analysis /Haver Analytics
Gas Prices Give Muted Boost

March price of $2.59 near 2009 low

$2.56 six-month average vs. $2.76 long-term average

Down $1.10 and 30% from a peak monthly average of $3.69 in June 2014 (star)

Gas prices are up 13% from $2.30 a year ago and 44% from 2016 low

According to the Energy Information Administration, average retail gas prices reached $2.70 a gallon in the first week of April, the highest since 2015

Source: Haver Analytics
Wages rose 0.3% in March, following a 0.1% rise in February

Up 2.7% Y/Y as of March, a two-month high

2.7% 12-month average in March

2.7% 3-month average in March

Wages in Illinois rose 0.2% in February and 2.6% over the past 12 months, up from 1.2% in January

“Regarding wage growth at the national level, several participants noted a modest increase, but most still described the pace of wage gains as moderate.”

-March 21st FOMC Meeting Minutes

Source: Bureau of Labor Statistics /Haver Analytics
Americans’ after-tax income is on the rise, thanks to the administration’s Tax Cuts and Jobs Act, but for many, the increase made little difference.

According to a Bankrate poll, nearly 75% of Americans say they didn’t notice a change in their take-home after-tax pay post tax reform.

Furthermore, while the Trump tax cut helped alleviate the federal burden, for many individuals and households, taxes were already on the rise as state and local governments grapple to finance rising deficits.
In March, the Conference Board Consumer Confidence Index fell from 130.0, an eighteen-year high, to 127.7, a two-month low.

Additionally, the University of Michigan Consumer Sentiment Index declined from 101.4 to 97.8 in the preliminary April report, a three-month low.
Gains in Business Investment Have “Moderated”
Modest Business Investment

Nonresidential fixed investment fell 5.1% at the end of 2015, the largest quarterly decline since Q2 2009.

Investment rose 6.2% in 2014, 0.4% in 2015, 0.7% in 2016 & 6.3% in 2017.

Investment rose 6.8% in Q4 following a 4.7% rise in Q3 2017, thanks to an 11.6% increase in equipment and a 6.3% increase in structures investment in Q4.

Source: Bureau of Economic Analysis / Haver Analytics
Capital goods excluding aircraft and defense – a proxy for business investment – increased 1.5% in February, a five-month high and following a 0.3% decline the month prior and a 0.5% drop in December.

Year-over-year, business investment increased 7.7%, a two-month high, but down from a recent peak of 9.9% in October 2017.
Small Business Confidence

The NFIB Small Business Optimism Index fell from 107.6 to 104.7 in March, a five-month low, but still up more than 12 points from a recent low in 2016.
Positive Equipment Investment

Equipment investment rose 4.8% in 2014, increased 3.6% in 2015, fell 3.5% in 2016 & rose 8.9% in 2017.

Equipment investment rose 11.5% in Q4, the highest since Q3 2014, and following a 10.8% rise in Q3 2017.

Source: Bureau of Economic Analysis /Haver Analytics
“Participants generally noted few signs of a broad-based pickup in wage growth in available data. With regard to how firms might use part of their tax savings to boost compensation, a few participants suggested that such a boost could be in the form of onetime bonuses or variable pay rather than a permanent increase in wage structures. It was noted that the pace of wage gains might not increase appreciably if productivity growth remains low.”

- January 31st FOMC Meeting Minutes

Q4 productivity was 1.0%, averaging 0.6% in 2017 and 0.7% over the past 5 years

Source: Bureau of Labor Statistics / Haver Analytics
Inflation Has Continued to “Run Below 2%” Target
“Inflation on a 12-month basis is expected to move up in coming months and to stabilize around the Committee’s 2 percent objective over the medium term.”

-March 21st FOMC Statement
The PPI rose 0.3% in March, following a 0.2% rise the month prior.

Year-over-year, headline producer prices rose 3.0% in March, a four-month high.

The core PPI also rose 0.3% in March and increased 2.7% over the past 12 months, the highest since November 2011.

The CPI fell 0.1% in March, the first monthly decline in ten months, and following a 0.2% increase the month prior.

Year-over-year, headline consumer prices rose 2.4% in March, a one-year high.

The core CPI rose 0.2% in March and 2.1% over the past 12 months, a thirteen-month high.
The PCE rose 0.4% in January and rose 1.7% year-over-year for the third consecutive month, below the recent peak of 2.2% in February 2017, the first +2% reading since April 2012.

The core PCE rose 0.3% in January and rose 1.5% year-over-year for the third consecutive month, down from a peak of 1.8% in January 2017.
“A few participants cautioned that, despite increases in market-based measures of inflation compensation in recent months and the stabilization of some survey measures of inflation expectations, the levels of these indicators remained too low to be consistent with the Committee’s 2 percent inflation objective.”

“Downside risks included the possibilities that longer-term inflation expectations may have edged lower or that the run of low core inflation readings last year could prove to be more persistent than the staff expected.”

—March 21st FOMC Meeting Minutes
Core Inflation Low for Decades

The core PCE rose 1.6% in February, an eleven-month high.

Inflation has been under 2% for 21 of 25 years.

Source: Bureau of Economic Analysis /Haver Analytics
The Fed continues to forecast three (two additional hikes after March 21st move) in 2018.

Median Consensus:  
2018: 2.1%  
2019: 2.9%  
2020: 3.4%  
Longer-Run: 2.9%
“We've made one decision at this meeting and that decision was to raise the Federal funds rate by 25 basis points.”

–Chairman Jerome Powell, March 21\textsuperscript{st} Press Conference

“All participants saw some further firming of the stance of monetary policy as likely to be warranted...Participants expressed a range of views on the amount of policy tightening that would likely be required over the medium term to achieve the Committee’s goals.”

–March 21\textsuperscript{st} FOMC Meeting Minutes
The Fed Continues to Expect a “Gradual” Rise in Rates

Buoyed by the expectation of firmer growth and prices to come, the majority of Fed officials anticipate three additional rate hikes in 2018, the same number reported in the December SEP.

Fed may be “overselling” future hikes

In December 2014, the Fed’s median consensus for rate hikes in 2015 was 4 and we had 1 and in 2016 it was 4 and we had 1

Finally, in 2017 the Fed forecasted 3 hikes and we had 3 hikes

Federal Funds Rate: 2.00% at end of 2018
Federal Funds Rate: 1.50% at end of 2017
Federal Funds Rate: 2.25% at end of 2018

Source: Bloomberg
During the Taper Tantrum of 2013 yields rose more than 100bps January to December before recapturing 79bps 35 months later.

10-yr yield rose 80bps from November 1, 2016 to 2.63% on March 13, 2017, the highest since July 2014.

10-yr rose 91bps from September 7, 2017 to 2.95% on February 21st, the highest since January 2014.

Source: Bloomberg
Yield Curve To Flatten Further

2s10s spread of **124bps** prior to liftoff and down to **44bps** following the March 2018 FOMC meeting.

With the 2-year up 117bps since the start of 2017 and the 10-year up 37bps, the spread of 44bps is at a near-term three-month low and furthermore, historically near an eleven-year low.

Projected to flatten to **40bps** by end of 2018.

Source: Bloomberg, Stifel
Composition of the Fed

Federal Reserve 2018

Board of Governors

- Jerome Powell
  - Chairman
- Lael Brainard
- Randal Quarles
- Vacant
- Vacant
- Vacant
- Vacant

District Presidents

- William Dudley
  - New York
- Thomas Barkin
  - Richmond
- Loretta Mester
  - Cleveland
- John Williams
  - San Francisco
- Raphael Bostic
  - Atlanta

Voting

Non-Voting

- Neel Kashkari
  - Minneapolis
- James Bullard
  - St. Louis
- Eric Rosengren
  - Boston
- Esther George
  - Kansas City
- Robert Kaplan
  - Dallas
- Patrick Harker
  - Philadelphia
- Charles Evans
  - Chicago

Notes:
1. Jerome Powell was sworn in as Fed Chairman on February 5, 2018 after Janet Yellen’s four-year term ended on February 3, 2018.
2. Stanley Fischer resigned on October 13, 2017, well before his term expired on June 13, 2018. Randal Quarles was confirmed by the Senate as Vice Chairman for Supervision on October 5, 2017.
3. Jerome Powell served as a member of the Board of Governors from May 25, 2012 – February 3, 2018. He leaves a vacant seat on the Board since being sworn in as Chairman. Marvin Goodfriend was nominated by President Trump to serve on the Board of Governors in November 2017. The Senate Banking Committee approved his nomination on Feb. 8, 2018. His nomination will now have to be approved by the full Senate.
4. Daniel Tarullo resigned on April 5, 2017, well before his term was set to expire on January 31, 2022.
7. William Dudley will retire in mid-2018, about six months prior to the expiration of his term on January 2019.
8. Thomas Barkin began serving as the new Richmond Fed President on January 1, 2018 after Jeffrey Lacker resigned on April 4, 2017.
“... a strong majority of participants viewed the prospect of retaliatory trade actions by other countries, as well as other issues and uncertainties associated with trade policies, as downside risks for the U.S. economy.”

“A number of participants also suggested that uncertainty about whether all elements of the tax cuts would be made permanent, or about the implications of higher budget deficits for fiscal sustainability and real interest rates, represented sources of downside risk to the economic outlook.”

–March 21st FOMC Meeting Minutes
International Trade

• “Fair” and “reciprocal” trading relationships, renegotiate trade deals that have left the U.S. disadvantaged; “America First” and protectionist policies defending American workers and their interests.
  • Tariffs on solar panels from China and washing machines from South Korea, totaling 30% and 20%, respectively
  • Tariffs on steel and aluminum, totaling 25% and 10%, respectively
  • Second-round retaliatory tariffs of 25% proposed on more than 1,300 types of Chinese goods totaling $50Bn following China’s 25% tariff on 128 U.S.-made goods
  • $100Bn in additional tariffs on China considered following China’s announcement of additional 25% tariff on 106 U.S.-made goods
  • Renegotiate NAFTA, now in its seventh round.
  • Reconsidering membership in the TTP. Partnering with other Asian countries would put pressure on the Chinese to end unfair trade practices.
Further restrictions on imported goods would expectedly hurt corporate America by reducing access to production materials, limiting accessibility to Chinese consumers and potentially rising costs should producers pass along price increases directly to shoppers.

“Participants did not see the steel and aluminum tariffs, by themselves, as likely to have a significant effect on the national economic outlook...”

-March 21st FOMC Meeting Minutes

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**Top 10 U.S. Imports from China**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Value 2017, $Thous</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cell phones and other household goods, n.e.c.</td>
<td>70,394,367</td>
<td>13.9%</td>
</tr>
<tr>
<td>2. Computers</td>
<td>45,520,475</td>
<td>9.0%</td>
</tr>
<tr>
<td>3. Telecommunications equipment</td>
<td>33,481,948</td>
<td>6.6%</td>
</tr>
<tr>
<td>4. Computer accessories</td>
<td>31,611,573</td>
<td>6.3%</td>
</tr>
<tr>
<td>5. Toys, games, and sporting goods</td>
<td>26,773,048</td>
<td>5.3%</td>
</tr>
<tr>
<td>6. Apparel, textiles, nonwool or cotton</td>
<td>24,152,367</td>
<td>4.8%</td>
</tr>
<tr>
<td>7. Furniture, household goods, etc.</td>
<td>20,667,323</td>
<td>4.1%</td>
</tr>
<tr>
<td>8. Other parts and accessories of vehicles</td>
<td>14,146,304</td>
<td>2.8%</td>
</tr>
<tr>
<td>9. Household appliances</td>
<td>14,072,700</td>
<td>2.8%</td>
</tr>
<tr>
<td>10. Electric apparatus</td>
<td>14,072,700</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

**TOTAL IMPORTS FROM CHINA TO U.S.**

<table>
<thead>
<tr>
<th>Total Value 2017, $Thous</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>505,597,065</td>
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**Top 10 U.S. Exports to China**

<table>
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<tr>
<th>Description</th>
<th>Total Value 2017, $Thous</th>
<th>% of Total</th>
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</thead>
<tbody>
<tr>
<td>1. Civilian aircraft, engines, equipment, and parts</td>
<td>16,265,504</td>
<td>12.5%</td>
</tr>
<tr>
<td>2. Soybeans</td>
<td>12,362,119</td>
<td>9.5%</td>
</tr>
<tr>
<td>3. Passenger cars, new and used</td>
<td>10,525,593</td>
<td>8.1%</td>
</tr>
<tr>
<td>4. Semiconductors</td>
<td>6,076,819</td>
<td>4.7%</td>
</tr>
<tr>
<td>5. Industrial machines, other</td>
<td>5,441,908</td>
<td>4.2%</td>
</tr>
<tr>
<td>6. Crude oil</td>
<td>4,434,408</td>
<td>3.4%</td>
</tr>
<tr>
<td>7. Plastic materials</td>
<td>4,004,303</td>
<td>3.1%</td>
</tr>
<tr>
<td>8. Medicinal equipment</td>
<td>3,454,276</td>
<td>2.6%</td>
</tr>
<tr>
<td>9. Pulpwood and woodpulp</td>
<td>3,394,968</td>
<td>2.6%</td>
</tr>
<tr>
<td>10. Logs and lumber</td>
<td>3,179,211</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

**TOTAL U.S. EXPORTS TO CHINA**

<table>
<thead>
<tr>
<th>Total Value 2017, $Thous</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>130,369,530</td>
<td></td>
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</tbody>
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Trump’s Key Agenda Points

- A four pillar framework for immigration including a path to citizenship for Dreamers, building a “wall,” ending the visa lottery program and moving towards a merit-based immigration system.

- Repeal & reform the Affordable Care Act. (Graham-Cassidy).

- Infrastructure spending bill proposes $200 billion in federal spending and $1.3 trillion at the state and local level, totaling $1.5 trillion to build roads, bridges, schools and airports “second to none.”

- Tax Cuts and Jobs Act
## Tax Cuts and Jobs Act

<table>
<thead>
<tr>
<th></th>
<th>Prior to 2017 Reform</th>
<th>2017 Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top Individual Tax Rate</strong></td>
<td>39.6%</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Individual Tax Brackets</strong></td>
<td>Seven (10%, 15%, 25%, 28%, 33%, 35% &amp; 39.6%)</td>
<td>Seven (10%, 12%, 22%, 24%, 32%, 35% &amp; 37%)</td>
</tr>
<tr>
<td><strong>Child Tax Credit</strong></td>
<td>$1,000; 15% of earnings over $3,000 are refundable</td>
<td>$2,000; up to $1,400 refundable</td>
</tr>
<tr>
<td><strong>Personal Exemption</strong></td>
<td>$4,150 per taxpayer and dependent</td>
<td>Eliminates</td>
</tr>
<tr>
<td><strong>Estate Tax</strong></td>
<td>Top rate of 40% on estates above $5.6 million</td>
<td>Increases threshold to estates above $11.2 million</td>
</tr>
<tr>
<td><strong>State &amp; Local Tax Deduction</strong></td>
<td>Income or sales and property taxes are deductible</td>
<td>All state and local tax deductions limited to $10,000</td>
</tr>
<tr>
<td><strong>Medical Expense Deduction</strong></td>
<td>Can deduct out-of-pocket expenses in excess of 10% of adjusted gross income</td>
<td>Reduce the threshold to 7.5% of adjusted gross income for the tax years 2017 and 2018.</td>
</tr>
<tr>
<td><strong>Student Loan Interest Rate Deduction</strong></td>
<td>Can deduct up to $2,500</td>
<td>No change</td>
</tr>
<tr>
<td><strong>Standard Deduction</strong></td>
<td>$6,500 / $13,000 (singles/couples)</td>
<td>Nearly Doubles – $12,000 / $24,000 (singles/couples)</td>
</tr>
<tr>
<td><strong>Mortgage Interest Rate Deduction</strong></td>
<td>Can deduct interest payments on up to $1 million of debt</td>
<td>Limited to payments on $750,000 of debt</td>
</tr>
<tr>
<td><strong>Charitable Donation Deductions</strong></td>
<td>Able to deduct charitable contributions that are made to qualifying organizations</td>
<td>No change</td>
</tr>
<tr>
<td><strong>Obamacare Individual Mandate</strong></td>
<td>Penalty for not having health insurance</td>
<td>Repeals penalties starting in 2019</td>
</tr>
<tr>
<td><strong>Alternative Minimum Tax</strong></td>
<td>Alternative income tax calculation for businesses</td>
<td>Ends the AMT for corporations but keeps it for individuals, while boosting the exemption to $500,000 for single taxpayers and $1 million for couples</td>
</tr>
<tr>
<td><strong>Corporate Rate</strong></td>
<td>35%</td>
<td>21% in 2018</td>
</tr>
<tr>
<td><strong>Top pass-through rate</strong></td>
<td>Taxed at individual rates</td>
<td>20%, phasing out starting at $315,000 of income for couples</td>
</tr>
<tr>
<td><strong>New investment purchases</strong></td>
<td>Complex rules for deducting over many years</td>
<td>Five years of full expensing, then phased out over five more years</td>
</tr>
<tr>
<td><strong>Repatriation</strong></td>
<td>The U.S. taxes multinationals on their global earnings at the corporate rate of 35%, but allows them to defer taxes on those foreign earnings until they bring them back to the U.S., or “repatriate” them</td>
<td>U.S. companies’ overseas income held as cash would be subject to a 15.5% rate, while non-cash holdings would face an 8% rate; companies can make the payments in eight annual installments.</td>
</tr>
</tbody>
</table>
Trump Tax Cuts

• Tax relief for middle-class families as well as for businesses, especially small businesses. The simplicity of “postcard” tax filing and ending incentives to ship jobs, capital and tax revenue overseas. Broadening the tax base and providing greater “fairness” for all Americans by closing special interest tax breaks and loopholes.

• “Our expectation should be that we will continue to increase our dividend and our share buybacks next year and the year after that and the year after that.”
  -Wells Fargo CEO Tim Sloan, December 18, 2017 CNN Money interview

• According to the Tax Foundation, the GOP tax plan would increase the deficit by $1.47 trillion over the next ten years.

• The latest 2018 budget adds nearly $300 billion in additional discretionary spending with increases in military and infrastructure.
Debt Appetite Diminished

77% of GDP, the highest level relative to the size of the economy since 1950

1950s decade-long expansion posting over 4.5% GDP vs. stagnant 2%

According to the CBO, financing the debt coupled with rising interest rates would result in a four-fold increase

Federal interest outlays totaled more than $330b

Source: Congressional Budget Office / Haver Analytics
Positive Market Reaction: Equities Rally on Optimism

After an initial fallout on election day, equities have since rebounded, pushing the Dow to a record high as of January 26th.

The Dow broke through 23,000 on an intraday basis for the first time on October 17th and closed above 23,000 on October 18th.

The Dow closed above 25,000 for the first time on January 4th.

The Dow closed down 1,175.21 pts (4.6%) on February 5th, marking the largest one-day point decline on record and following a 665.75 pt drop the prior trading day (Feb 2nd).

Equities had a wild ride throughout the first quarter, breaking a ten-month winning streak with more than 50 days of triple digit swings, 27 of which ended in the red.

Since the start of 2017, however, the Dow is up 21% and up 31% since election day.
Continued Moderation, Subdued Inflation, and a Flatter Curve
Questions?
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