Consumer and Finance Outlook
UNDERSTANDING WHAT CONSUMPTION MEANS
# THE BALANCE SHEET FOR U.S. CONSUMERS

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Very strong labor markets</td>
<td>- Modest wage growth</td>
</tr>
<tr>
<td>- Very strong financial markets</td>
<td>- Rising income and wealth inequality</td>
</tr>
<tr>
<td>- Tax cuts</td>
<td>- Very poor retirement preparedness (private and public)</td>
</tr>
<tr>
<td>- Moderating mortgage and credit card debt</td>
<td>- Substantial student debt</td>
</tr>
<tr>
<td>- Steady saving rate</td>
<td>- Risk of job disruption</td>
</tr>
<tr>
<td>- High levels of confidence</td>
<td></td>
</tr>
</tbody>
</table>

CONSUMERS HAVE LED U.S. GDP GROWTH

• **Consumers are driving this recovery**
• **Their optimism is at record levels**

**Contributions to GDP Growth**

- **Net Exports**
- **Government**
- **Investment**
- **Consumption**

**Consumer Attitudes**

*Sources: Bureau of Economic Analysis, University of Michigan, Conference Board*
U.S. LABOR MARKET TIGHTENING

- Very low unemployment creates opportunities
- Is the Phillips Curve dead, or just resting?

Sources: BLS, Haver Analytics
• **U.S. marginal rates were been reduced across the board**
• **Reduced corporate rates prompted huge share repurchases**

**Estimated Average U.S. Individual Tax Rates**

- **Current Law**
- **Tax Reform**

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Current Law</th>
<th>Tax Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200-500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Joint Committee on Taxation**

**The US buyback bonanza hits new heights**

*Bernstein forecast
Sources: Bernstein; TrimTabs
© FT*
WEALTH IS GROWING BUT NOT SPREADING

• *Net worth continues to grow*
• *Gains have not accumulated evenly*

Sources: BEA, Federal Reserve, Haver Analytics
RENEWED FRUGALITY

• Spending and income have become better aligned
• Household leverage is under better control

Sources: BEA, Haver Analytics, World Bank
HOUSING

- *Housing has only recovered modestly*
- *A number of headwinds have held the sector back*

**Homeownership Rate**

**Housing Conditions**

*Sources: Census Bureau, National Association of Realtors, Federal Reserve, Haver Analytics*
STUDENT LENDING

- **Substantial increase in balances; almost a third in deferral or default**
- **Gains to education are still positive for those who finish**

### Weekly Earnings by Degree

- **High School**
- **Some College**
- **Bachelor**
- **Advanced Degree**

### Sources:
- Federal Reserve Bank of New York, BLS
ARE SAVING LEVELS SUFFICIENT?

- The data on retirement preparedness are scary
- A majority of households will have to watch consumption carefully

Sources: Federal Reserve Board Survey of Consumer Finances, Haver Analytics
• **Demographics are taking a toll on Social Security**

• **Reliance on Social Security will make reform discussions difficult**

*Projection*

**Social Security Trust Funds Cash Flow**

**Households Reliant on Social Security for 90% of Income**

*Sources: Social Security Administration, Government Accountability Office, Bureau of Economic Analysis, Haver Analytics*
AUTOMATION AND ANXIETY

• Man’s love/hate relationship with machines is entering a new chapter
• How far and how fast will change occur?

Source: McKinsey
The Deleveraging Myth
REFLECTIONS ON THE FINANCIAL CRISIS
SHORING UP FINANCE

- Banks have much better capital positions
- Reduced use of volatile short-term funding

**Capital Position: Top 10 U.S. Banks**

**Sources:** FRB, SNL, Bloomberg

**More Stable Funding**

Big banks have reduced reliance on short-term funding that fled during the last crisis, replacing it with deposits.
THE EVOLUTION OF INDEBTEDNESS

- Credit creation has moved from the private sector to the public sector, and from developed countries to China
CORPORATE DEBT

- In most places, corporate debt has risen sharply
- The bulk of new issues are just above investment grade

Non-Financial Corporate Debt

U.S. | U.K. | Eurozone | Japan

% of GDP


Source: BIS

BBB My Baby

The explosion of corporate bonds since the last recession has been led by the lowest investment-grade rating, BBB.

Value of U.S. corporate bonds by rating

Source: Intercontinental Exchange
MEASURES OF FINANCIAL CONDITIONS

- Access to capital is not difficult for most borrowers
- Bond spreads have widened of late, but remain modest

Sources: Federal Reserve Bank of Chicago, Barclay’s, Bloomberg
THE LIMITS OF GOVERNMENT LEVERAGE

• Public sector debt has grown quickly since the crisis
• Unfunded pension obligations are immense

Sources: Haver Analytics, Citigroup
MONETARY NORMALIZATION

- Crisis-era accommodation is being unwound
- The Fed has initiated “qualitative tightening”

Central Bank Deposit Rates

Source: Bloomberg

Federal Reserve Total Assets

Source: Bloomberg
CENTRAL BANK INDEPENDENCE UNDER THREAT?

Donald J. Trump
@realDonaldTrump

"...The United States should not be penalized because we are doing so well. Tightening now hurts all that we have done. The U.S. should be allowed to recapture what was lost due to illegal currency manipulation and BAD Trade Deals. Debt coming due & we are raising rates - Really?"

7:51 AM - Jul 20, 2018

ECB's Draghi warns central banks' independence under threat

China’s central bank to pump US$110 billion into economy as US trade war intensifies

India risks a high stakes fight with its central bank

Erdogan Expands Clout Over Central Bank, as He Promised
PARTING THOUGHTS

Household finances are improved, but may need further repair
• Retirement preparedness is a problem for many

Student debt will require enlightened attention
• Human capital accumulation should be stressed, but not at all costs

Financial stability surveillance is imperative
• Risks of a “Minsky Moment” are rising

Central banking is becoming more difficult
• Political pressure for easy money is rising
IMPORTANT INFORMATION

Confidentiality Notice: This communication is confidential, may be privileged, and is meant only for the intended recipient. If you are not the intended recipient, please notify the sender as soon as possible. All materials contained in this presentation, including the description of Northern Trust, its systems, processes and pricing methodology, are proprietary information of Northern Trust. In consideration of acceptance of these materials, the recipient agrees that it will keep all such materials strictly confidential and that it will not, without the prior written consent of Northern Trust, distribute such materials or any part thereof to any person outside the recipient’s organization or to any individual within the recipient’s organization who is not directly involved in reviewing this presentation, unless required to do so by applicable law. If the recipient is a consultant acting on behalf of a third party client, the recipient may share such materials with its client if it includes a copy of these restrictions with such materials. In such event, the client agrees to comply with these restrictions in consideration of its accepting such materials.

© 2016 Northern Trust Corporation. Head Office: 50 South La Salle Street, Chicago, Illinois 60603 U.S.A. Incorporated with limited liability in the U.S. Products and services provided by subsidiaries of Northern Trust Corporation may vary in different markets and are offered in accordance with local regulation. This material is directed to professional clients only and is not intended for retail clients. Northern Trust Asset Management is composed of Northern Trust Investments, Inc., Northern Trust Global Investments Limited, Northern Trust Global Investments Japan, K.K., NT Global Advisors, Inc., 50 South Capital Advisors, LLC, and personnel of The Northern Trust Company of Hong Kong Limited and The Northern Trust Company.

For Asia-Pacific markets, it is directed to expert, institutional, professional and wholesale investors only and should not be relied upon by retail clients or investors. For legal and regulatory information about our offices and legal entities, visit northerntrust.com/disclosures. The following information is provided to comply with local disclosure requirements: The Northern Trust Company, London Branch; Northern Trust Global Services Limited; Northern Trust Global Investments Limited. The following information is provided to comply with Article 9(a) of The Central Bank of the UAE’s Board of Directors Resolution No 57/3/1996 Regarding the Regulation for Representative Offices: Northern Trust Global Services Limited, Abu Dhabi Representative Office. Northern Trust Global Services Limited Luxembourg Branch, 6 rue Lou Hemmer, L-1748 Senningerberg, Grand-Duché de Luxembourg, Succursale d’une société de droit étranger RCS B129936. Northern Trust Luxembourg Management Company S.A., 6 rue Lou Hemmer, L-1748 Senningerberg, Grand-Duché de Luxembourg, Société anonyme RCS B99167. Northern Trust (Guernsey) Limited (2651)/Northern Trust Fiduciary Services (Guernsey) Limited (29806)/Northern Trust International Fund Administration Services (Guernsey) Limited (15532) Registered Office: Trafalgar Court Les Banques, St Peter Port, Guernsey GX1 3DA. Issued in the United Kingdom by Northern Trust Global Investments Limited. The Northern Trust Company of Saudi Arabia – a Saudi closed joint stock company – Capital SAR 52 million. Licensed by the Capital Market Authority – License No. 12163-26 – C.R: 1010366439. January 2016

© 2016 Northern Trust Corporation. Proprietary and Confidential. All rights reserved. Any rebroadcast, retransmission, distributing, copying or use of this presentation or any of its content without the express written consent of Northern Trust Corporation is strictly prohibited.
NORTHERN TRUST

@NT_CTNannenbaum