Presentation

by

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to

Texas Municipal Retirement System

May 2020
Chart 1
Dow Jones Industrial Average

Source: Bloomberg
Chart 2
S&P 500 Index

Last Point 05/18/20: 2,953.9

Source: Bloomberg
Chart 3
Central Bank Rates

Source: The Central Banks; Bloomberg
Chart 4
Central Bank Assets
change since January 2007

Note: Growth in Gilt purchases used after Q3 2014 for BOE due to lack of data.

Source: Bloomberg; The Central Banks
Chart 5
Real GDP Growth During Expansions
annualized rates of expansion from NBER trough-to-peak

1950: 7.6%
1954: 4.0%
1958: 5.6%
1961: 4.9%
1971: 5.1%
1975: 4.3%
1980: 4.4%
1983: 4.3%
1991: 3.6%
2002: 2.8%
2009: 2.1%

Expansion Start Date

*Through Q1 2020
Source: BEA; NBER
Chart 6
U-3 Unemployment Rate

Last Point April 2020: 14.7%

Source: Bureau of Labor Statistics
Chart 7
Americans' Emergency Savings
number of months expenses can be covered using money in checking, savings or money market account

- None: 28%
- Fewer than 3 Months: 25%
- 3 to 5 Months: 17%
- 6 Months or More: 18%

Note: From Bankrate's Financial Security Poll, May 21-26, 2019
Source: www.bankrate.com
Chart 8
U.S. Personal Saving Rate
seasonally-adjusted annual rate

Last Point March 2020: 13.1%

Source: Bureau of Economic Analysis
Last Points April 2020 - Male, 66.1%; Total, 60.2%; Female, 54.7%

Source: Bureau of Labor Statistics
Chart 10
NY Federal Reserve Survey of Consumer Expectations
median inflation expectations

Last Points April 2020: 1-year, 2.6%; 3-year, 2.6%

Source: Federal Reserve Bank of New York
Chart 11
Exports of Non-Woven Man-Made Filaments
million kilograms

Source: United Nations; The Wall Street Journal

Last Point: 2017

- **China**: 152
- **U.S.**: 98
- **Turkey**: 90
- **Italy**: 78
- **Germany**: 46

Source: United Nations; The Wall Street Journal
Chart 12
30-year Treasury Bond Price and S&P 500 Index

Last Points 05/18/20: 30-yr, 113.70; S&P, 2,953.91

Source: Bloomberg
Chart 13
Cyclically Adjusted Stock Price to Earnings Ratio
S&P 500 price / avg. earnings from previous 10 years

Average: 17.01

Last Point April 2020: 26.03

Source: Robert Shiller
Chart 14
United States International Trade Balance as a percent of GDP

Last Points Q1 2020: -2.5%

Source: Bureau of Economic Analysis
Chart 15
Manufacturing Payroll Employment
level and share of total nonfarm payroll

Last Points April 2020 - Level: 11.49, Share: 8.8%

Source: Bureau of Labor Statistics
<table>
<thead>
<tr>
<th>Partial List of Great Society Programs and Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Appalachian Regional Development Act of 1965</td>
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<tr>
<td>• Cigarette Labeling &amp; Advertising Act of 1965</td>
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<tr>
<td>• Corporation for Public Broadcasting</td>
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<td>• Economic Development Administration</td>
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<tr>
<td>• Economic Opportunity Act of 1964 (War on Poverty)</td>
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<td>• Elementary and Secondary Education Act of 1965</td>
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<td>• Food Stamp Act of 1964</td>
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<td>• Head Start</td>
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<td>• Higher Education Act of 1965</td>
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<td>• Job Corps</td>
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<td>• Medicaid</td>
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<td>• Medicare</td>
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<td>• Model Cities Program</td>
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<td>• Motor Vehicle Air Pollution Control Act</td>
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<td>• National Endowment for the Arts</td>
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<tr>
<td>• National Endowments for the Humanities</td>
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<tr>
<td>• National Highway Transportation Safety Administration</td>
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<td>• National Transportation Safety Board</td>
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<tr>
<td>• Older Americans Act of 1965</td>
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<tr>
<td>• Volunteers in Service to America (VISTA)</td>
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<tr>
<td>• Water Quality Act</td>
</tr>
</tbody>
</table>
Chart 17
Department and Nonstore Retail Sales
as percent share of total retail sales

Last Points April 2020: Nonstore, 19.4%; Department Stores, 1.5%

Source: U.S. Census Bureau
United States Infrastructure Spending as a percent of GDP

Note: Includes private fixed investment in structures, industrial equipment and transportation equipment. Includes federal nondefense gross investment and state & local gross investment.

Source: Bureau of Economic Analysis
Chart 20
Thomson Reuters CRB Index

Source: Bloomberg
Last Point 05/18/20: 129.09
Chart 21
Japanese CPI and Real GDP
year/year percent change

Last Points Q1 2020: GDP, -2.0%; CPI, 0.4%

Source: Japanese Cabinet Office
Chart 22
20-year Treasury Yield and Consumer Price Index

Source: Federal Reserve Board; Bureau of Labor Statistics
Chart 23
Corporate Profits and Employee Compensation
as a percent of national income

Last Points Q4 2019 - Employee Comp: 62.9%; Corp. Profits: 11.4%

Source: Bureau of Economic Analysis
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