Demographics, Debt, Dollar and Deflation

Is the next Great “Reset” coming?

CMTA Advanced Investment Workshop
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Presented by Douglas C. Robinson

RCM Robinson Capital Management LLC

SEC Registered Investment Advisory Firm

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Immigration Adjusted Birth Index

Data Source: U.S. Census Bureau, National Center for Health Statistics, Dent Research

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Consumer Life Cycle of Spending

Data Source: Bureau of Labor Statistics, Dent Research
Consumer Life Cycle of Spending Peak

- Age 46: Furniture; Tires
- Age 48: Motorcycles; Vacation Homes; College Tuition
- Age 51: Autos
- Age 53: Home Improvement
- Age 54: Data Source: Bureau of Labor Statistics, Dent Research

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Consumer Spending Over 50

Data Source: Bureau of Labor Statistics, Dent Research

- China/Dinnerware
- Life Insurance; Doctor’s Fees
- Hospitals; Travel
- Vacation and Retirement Homes
- Trusts, Cruise Ships, Medicare Co-Pay
- Prescription Drugs
- Garden/Lawn Care
- Nursing Homes

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Men's Shirts

![Graph showing expenditures by age for men's shirts.](image)

Spending on Drugs

Funeral, burial or cremation

Healthcare Spending Wave
Births on a 80-Year Lag

Total U.S. Debt Outstanding
1977- Q3 2014

Data Source: Federal Reserve Flow of Funds Report, Treasury Direct, 2014

Government
$20.9Trn

Financial
$14.0Trn

Foreign
$2.9Trn

Corporate
$12.6Trn

Consumer
$12.6Trn

Total:
$62.2 Trn

Trillions

Federal Govt Trust Funds
Federal Govt
State and Local Govt
Financial Sector
Foreign
Corporate
Consumer Credit
Home Mortgage
Real Gross Domestic Product

Recessions, Linear Regression and the 10-Yr MA

Data Source: Advisor Perspectives – Doug Short, 2015
Total U.S. Debt Growth vs. GDP
1983-2014

Debt Growth = 839%

Debt Growth = 2.68x GDP Growth

GDP Growth = 313%

Current Debt is 3.54x GDP

Data Source: Federal Reserve, 2015
China Debt Growth vs. GDP
Q1 2000 - Q3 2014

Debt Growth = 3.43x GDP Growth

Debt Growth = 2,635%

GDP Growth = 768%

Current Debt is 2.64x GDP

Data Source: Bloomberg, 2015
Iron Ore
2000-2014

Iron Ore, $/ Metric Ton

Data Source: Bloomberg, 2015, Quarterly Prices Prior to 2008
U.S. Total Debt as Percent of GDP by Sector, 1916-2014

During the last great economic “reset”, non-government debt fell dramatically to 50% of GDP. Today all debt exceeds 360% of GDP.

The Velocity of Money
GDP divided by M2 Money Supply

Source: Bloomberg, 2015
Record NYSE Margin Debt

Source: NYSE, Bloomberg, Advisor Perspectives – Doug Short, 2015
The Buffett Indicator

The Buffett Indicator: Corporate Equities to GDP

**Numerator:** Corporate Equities; Liability from the Federal Reserve's Quarterly Z.1 Balance Sheet (B.102). This series is also published in the FRED repository as MVEONWMVB5NCB.

**Denominator:** Nominal Quarterly GDP

Market Value of Equities Outstanding to GDP over 2 standard deviations from mean

Source: Federal Reserve Bank of St. Louis, Advisor Perspectives – Doug Short, 2015

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Data Source: Bloomberg, 2015  Future assumptions are the opinions of RCM Robinson Capital Management LLC and are not guaranteed.
US Labor Force Participation Rate Total

US Labor Force Participation Rate
Age 65 & Over

Who’s Working?

Labor Force Participation Rate
Smoothed Growth Since 2000

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Participation Rate</th>
<th>LFPR Growth Since 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 16-24</td>
<td>55.0</td>
<td>-16.1%</td>
</tr>
<tr>
<td>Ages 25-34</td>
<td>81.2</td>
<td>-4.1%</td>
</tr>
<tr>
<td>Ages 35-44</td>
<td>82.2</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Ages 45-54</td>
<td>79.6</td>
<td>-3.5%</td>
</tr>
<tr>
<td>Ages 55-64</td>
<td>64.1</td>
<td>8.1%</td>
</tr>
<tr>
<td>Ages 65 and Over</td>
<td>18.6</td>
<td>50.1%</td>
</tr>
</tbody>
</table>

12-month moving average non-seasonally adjusted data

Source: Advisor Perspectives – Doug Short, 2015
The Great Shift in Labor Force Participation

Change in Participation Rate From Peak Employment in November 2007 to Current

Percent Change by Age Group

Median (Real) Household Income Declines from Peak Year

<table>
<thead>
<tr>
<th>Age Bracket of Head of Household</th>
<th>Peak Year</th>
<th>Peak Income</th>
<th>2013 Income</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 to 24</td>
<td>2000</td>
<td>$37,669</td>
<td>$34,311</td>
<td>-8.9%</td>
</tr>
<tr>
<td>25 to 34</td>
<td>2000</td>
<td>$60,079</td>
<td>$52,702</td>
<td>-12.3%</td>
</tr>
<tr>
<td>35 to 44</td>
<td>2000</td>
<td>$72,724</td>
<td>$64,973</td>
<td>-10.7%</td>
</tr>
<tr>
<td>45 to 54</td>
<td>1999</td>
<td>$79,550</td>
<td>$67,141</td>
<td>-15.6%</td>
</tr>
<tr>
<td>55 to 64</td>
<td>2007</td>
<td>$64,472</td>
<td>$57,538</td>
<td>-10.8%</td>
</tr>
<tr>
<td>65 and older</td>
<td>2013</td>
<td>$35,611</td>
<td>$35,611</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics, Bloomberg, Chained in 2013 dollars
Advisor Perspectives – Doug Short, 2015
The Top 10% Income Share
1917-2012

Source: http://topincomes.g-mond.parisschoolofeconomics.eu/
US Household Debt Service Ratio
Lowest in 35 years

Source: Federal Reserve, Bloomberg, 2015
Los Angeles, Fresno and Sacramento Counties

Median Home Prices

LA +212%
Sacramento +205%
Fresno +199%

Source: California Association of Realtors, Bloomberg, 2015

4.6%, 5.3%, and 6.5% Average Annual Return
S&P Index ‘Wide Channel’
1916-2045

Source: Bloomberg, 2014, Projection channels assume continuation of 4.52 slope rate. Regression rate is 4.95. Future return assumptions are the opinions of RCM Robinson Capital Management LLC and are not guaranteed.
5 Year Treasury Channel
1980-Present

Source: Bloomberg, 2015
5 Year Treasury Technicals

Ready for 1.00 or lower?

Source: Bloomberg, 2015
Will the Markets follow Demographics?

Births Lagged for Peak Spending

Dow Adjusted for Inflation

Immigration-adjusted Births Lagged for Peak Spending

Data Source: Dent Research, U.S. Census Bureau, Bloomberg, 2015
Questions?

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Doug Robinson is the principal of RCM Robinson Capital Management, an SEC registered investment advisory and management firm specializing in institutional fixed income management and OPEB trust asset allocation strategies. Doug is a frequent guest speaker and long-time member of the California Municipal Treasurers Association. With over thirty years in the investment industry, he is the editor of robinsoncapital.com, an educational web site providing investors with information on institutional fixed income, GASB 45 mitigation strategies and portfolio management. Doug is also a Branch Manager and Registered Principal with Foothill Securities.

Doug received his Bachelors of Science degree in Economics from University of Missouri-Columbia and is co-author of “Boom or Bust - Understanding and Profiting from a Changing Consumer Economy”.

Doug and his wife Mary of twenty-five years have one daughter, Christine, who is attending a music conservatory in Paris, France while working toward her degrees in piano theory and performance.

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