Paying it back: Real-world debt service trends and implications for retirement planning

May 2019
61% of workers say that their debt is negatively impacting their retirement savings.

In 2016, 70% of households age 65-74 had debt, up from 53% in 1998.

U.S. household debt is at an all-time high of $13.54 trillion.

The median ratio of primary mortgage to home value rose from 5% to 30% for Early Boomers – meaning they will need to continue servicing their mortgages well into retirement.

5.3% of 75+ aged households have debt servicing equal to 40% or more of their income.
Agenda

• JPMorgan Chase big data research background
• Preliminary results
  • Debt servicing trends by age cohort
  • Debt servicing trends by debt type
  • Asset range analysis
• Next steps
Data filtering methodology

31 million Starting universe of households (Dec 2017)

13.7 million Minimum $500 in deposits + five or more expenditures each month in 2017

10.6 million Represented in data every month

7.4 million Between ages 25–100 with both asset and income data

5.1 million that spent a significant portion of their estimated income at Chase

Note: Starting universe of 31 million households with both JPMorgan Chase credit card and banking relationships through year-end 2017. Chase credit card data excludes certain Chase co-branded cards.

Source: J.P. Morgan Asset Management, based on Chase data.
Chase data debt service averages are reasonably close to national averages

Data validation

Note: Chase averages based on 5.1 million households, of which 0.86 million exhibited positive annual debt service for student loans, 1.4 million for auto loans, and 1.5 million for mortgages.

Average annual debt service displays a clear life cycle trend

Average annual debt service patterns by age for all households

Note: Based on 5.1 million households whether or not they hold a particular category of debt. Extreme outliers excluded so that overall averages are not skewed. Average credit card payments are separated into two groups: Chase credit cards, which offer direct, detailed data, and non-Chase credit cards, from which we are able to infer information based on overall household debt service and general spending patterns. Credit card debt service data includes only revolving balances in order to focus solely on credit card debt versus broad credit card usage, which would be more reflective of spending patterns instead of debt accumulation.

Source: J.P. Morgan Asset Management, based on Chase data.
Certain debt type dominates household balance sheet

Average annual debt service patterns for households with a particular debt type

Note: Based on 5.1 million households, if they hold the particular category of debt.
Source: J.P. Morgan Asset Management, based on Chase data
Mortgage debt payments peak around age 40-49

Annual debt service for households with mortgages

Note: Data based on the following number of households holding a particular category of debt from the 5.1 million overall data set: 859,402 servicing student loan debt, 1,540,324 servicing mortgage debt, 2,643,601 servicing Chase credit card debt, 1,409,649 servicing auto loan debt, and 103,481 servicing home equity loan/line of credit debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Credit card revolving debt has alarming impact

Annual debt service for households with Chase credit card revolving debt

Note: Data based on the following number of households holding a particular category of debt from the 5.1 million overall data set: 859,402 servicing student loan debt, 1,540,324 servicing mortgage debt, 2,643,601 servicing Chase credit card debt, 1,409,649 servicing auto loan debt, and 103,481 servicing home equity loan/line of credit debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Parents and grandparents continue to pay student loans

Annual debt service for households with student loans

Note: Data based on the following number of households holding a particular category of debt from the 5.1 million overall data set: 859,402 servicing student loan debt, 1,540,324 servicing mortgage debt, 2,643,601 servicing Chase credit card debt, 1,409,649 servicing auto loan debt, and 103,481 servicing home equity loan/line of credit debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Households in the $50,000–$100,000 asset range

Average annual debt service for HH in $50,000 - $100,000 asset range

Note: A total of 689,048 households are represented in the $50,000–$100,000 asset range. All are included in the data whether or not they hold a particular category of debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Households in the $500,000–$1 million asset range

Average annual debt service for HH in $500,000 - $1 million asset range

Note: A total of 84,103 households are represented in the $500,000–$1 million asset range. All are included in the data whether or not they hold a particular category of debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Next steps

- Data refinement
- Analysis of households who own each debt type
- Longitudinal view of debt decisions over time
- Debt service as a percentage of income
- Better understand the debt ‘peak’ across in-plan loans & observed out-of-plan debt servicing

**Higher-income earners tend to contribute the highest rates**

**Middle-income earners are most likely to take a loan**

Average contribution rates by salary level

Percentage of participants with loans by salary level
Auto loan payments doesn’t have clear life cycle pattern

Annual debt service for households with auto loans

Note: Data based on the following number of households holding a particular category of debt from the 5.1 million overall data set: 859,402 servicing student loan debt, 1,540,324 servicing mortgage debt, 2,643,801 servicing Chase credit card debt, 1,409,649 servicing auto loan debt, and 103,481 servicing home equity loan/line of credit debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Home equity loan volume peaks in late 50s

Annual debt service for households with home equity loans/lines of credit

Note: Data based on the following number of households holding a particular category of debt from the 5.1 million overall data set: 859,402 servicing student loan debt, 1,540,324 servicing mortgage debt, 2,643,601 servicing Chase credit card debt, 1,409,649 servicing auto loan debt, and 103,481 servicing home equity loan/line of credit debt.

Source: J.P. Morgan Asset Management, based on Chase data.
Data-driven insights: Real-life participant behaviors

Big data used

<table>
<thead>
<tr>
<th>Population</th>
<th>Sample data set</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>2M people</td>
<td>Contributions</td>
<td>Data starting 2001</td>
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<tr>
<td>From 4000 companies</td>
<td>Loans</td>
<td>Published 5 research papers</td>
</tr>
<tr>
<td></td>
<td>Distributions: pre-retirement and post-retirement</td>
<td></td>
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<td></td>
<td>Salary raises</td>
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</tbody>
</table>

Source: J.P. Morgan Asset Management, Ready! Fire! Aim? 2018
Data-driven insights: Real-life retiree spending behavior

Key takeaways from analyzing Chase® data starting in 2012

1. **Spending Curve**¹
   - Overall spending level declines with age on a real dollar basis

2. **Variation in Spending**²
   - There’s wide variation in spending the year after retirement

3. **Spending Volatility**²
   - Spending volatility persists three years into retirement

¹ Source: Total spending and all category sub-totals except checks, cash and health care costs: Chase data including aggregated and de-identified Chase credit card, debit card, electronic payment, ATM withdrawal and check transactions from January 1 – December 31, 2016; J.P. Morgan analysis.
² Source: Aggregated and de-identified Chase credit card, debit card, electronic payment, ATM withdrawal and check transactions from October 2012 – December 2016. Outliers in each asset group were excluded (0.1% of top spenders in each spending category). Information that would have allowed identification of specific customers was removed prior to each analysis.
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