Household Financial Stability and Economic Growth

October 9, 2013

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These comments do not necessarily represent the views of the Federal Reserve Bank of St. Louis or the Federal Reserve System.
What is the state of families’ balance sheets?
- Survey of Consumer Finances
- Financial Accounts of the United States
- Experian/New York Fed Consumer-Credit panel

Why does it matter for families and for the economy?

What can we do to improve them?
Research

- *2012 Annual Report*: The state of American balance sheets
- Who was hurt most in the crisis?
- Why did vulnerable families have risky balance sheets?
- Why did young families lose so much wealth?
- What is the current status of older families?

Conferences and events

- Financial-Access Forum (Oct. ’12); Student Loans (Nov. ‘13)
- Research Symposia (Feb. 2013; May 2014)
- Rebuilding-Wealth Roundtable (Urban Institute, Oct. ‘13)

Updates and monitoring tools

- *In the Balance* briefs
- Household Financial Stability Index (in progress)
What is the State of American Families‘ Balance Sheets?

- Largest household-wealth loss since the Great Depression: $16 trillion
- Main balance-sheet components
  - Equity shares
  - Housing
  - Other assets
  - Liabilities continued to rise until Q3.2008
- Demographic dimensions
  - In percentage terms, biggest losers were:
    - Young families
    - Less-educated
    - Minorities (African-American, Hispanic)
Recovery of Average Wealth Loss: 76 Percent

- Average inflation-adjusted household wealth loss, Q1.2007 (peak) through Q1.2009 (trough)
  -$153,000
  -22.2%

- Average inflation-adjusted household wealth regained, Q1.2009 (trough) through Q2.2013 (latest)
  +$117,000
  +21.8%
Average Real Household Wealth Hasn‘t Returned to Peak of 2007

Index equals 100 at cyclical wealth peak

Peak in Q1.2007: $689,000 in today’s dollars

Trough in Q1.2009: $536,000 in today’s dollars

Latest in Q2.2013: $652,000 in today’s dollars

Sources: Federal Reserve Board, Bureau of Economic Analysis, Census Bureau
Wealth Loss During 1968-75 Cycle Also Was Protracted

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Cycle with peak in Q4.1968

Sources: Federal Reserve Board, Bureau of Economic Analysis, Census Bureau
Wealth losses during the crisis (2010 wealth vs. 2004/07 average, inflation-adjusted)

- Overall: -10%
- Young (<40) families: -41%
- Less-than HS families: -28%
- Minority families: -31%

Groups with smaller average losses

- Older (62+) families: -4%
- College grads (2- or 4-yr): -9%
- Whites and Asians: -6%

Source: Federal Reserve, Survey of Consumer Finances
Wealth Loss During the Crisis

Source: Federal Reserve, Survey of Consumer Finances
Wealth Recovery Continues

- **By balance-sheet item**
  - Equity shares fully recovered
  - Housing still off 25% in real terms
  - Other assets remain below peak
  - Liabilities falling but still high

- **By demographic group**
  - Biggest gainers owned stocks and businesses, had little debt: Mainly college-educated whites and Asians over 40
  - Biggest losers had only housing and lots of debt, and are recovering very slowly if at all
Why Does it Matter for Families and the Economy?

- **Families**
  - Strong balance sheets can buffer income shocks
  - Wealth predicts health outcomes, community stability, and children’s success
  - Economic mobility

- **The economy**
  - Wealth effects
  - Leveraging and deleveraging effects
Case, Quigley, and Shiller (2013): Housing Wealth Effect Reduced Consumer Spending

Inflation-Adjusted Value of Household Real Estate
Billions of 2009 chained dollars

Real Personal Consumption Expenditures
Billions of 2009 chained dollars

Inflation-adjusted household real estate

Smaller gap created by loss of stock-market wealth

Gap created by loss of housing wealth: 3.5% of consumption

Sources:
Federal Reserve Board, Bureau of Economic Analysis, Census Bureau

Billions of 2009 chained dollars

Quarterly through Q2.2013

Source: Haver Analytics

Note: The chart illustrates the relationship between inflation-adjusted values of household real estate and personal consumption expenditures, highlighting the impact of housing wealth on consumer spending.
Dynan and Edelberg (2013): Debt Overhang Slows Deleveraging Households

Inflation-Adjusted Household Liabilities
Billions of 2009 chained dollars

Real Personal Consumption Expenditures
Billions of 2009 chained dollars

Sources:
Federal Reserve Board, Bureau of Economic Analysis, Census Bureau

Billions of 2009 chained dollars

Source: Haver Analytics
Quarterly through Q2.2013
What Can We Do to Improve It?

- **Research**
  - Demographic drivers of financial fragility
  - Balance-sheet failures
  - Wealth-building successes and failures; for example homeownership

- **Events**
  - Research symposia
  - Practitioner “best-practice” events

- **Policy**
  - Help Federal Reserve leaders understand the role of household balance sheets in economic growth
  - Public policy advocacy not the Fed’s job, but we partner with advocates
For More Information

www.stlouisfed.org/household-financial-stability/

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Previous Presentations

- Micro view
- Macro view
The Micro View: Economic Vulnerability and Financial Fragility

- Evidence from the Survey of Consumer Finances: Economically vulnerable families were more likely to have risky balance sheets in 2007, then suffered larger percentage wealth losses during the crisis.

- Shouldn’t a family’s balance sheet be used to dampen its economic risk, rather than amplify it?

- Which interventions are most likely to break the link between economic vulnerability and financial fragility?
Economically Vulnerable Group: The Young

Unemployment Rates: Under 35 and 35+

Source: Bureau of Labor Statistics
Economically Vulnerable Group: Less-Educated

Unemployment Rates: No College and Some College

Source: Bureau of Labor Statistics
Economically Vulnerable Group: African-Americans and Hispanics

Unemployment Rates: African-Americans and Hispanics vs. All Others

Source: Bureau of Labor Statistics
Economic vulnerability: Susceptibility to job and income losses

Financial fragility: Risky financial behavior and risky balance sheets

Fact: They are positively correlated in the population across demographic sub-groups

Why don’t economically vulnerable families take less financial risk to hedge their consumption risk?

Our explanation: They’re driven by common factors—youth and inexperience, low human capital, and the legacy of discrimination
Economically Vulnerable Groups Suffered Very Large Wealth Losses

- Wealth losses during the crisis (2010 wealth vs. 2004/07 average, inflation-adjusted)
  - Overall: -10%
  - Young (<40) families: -41%
  - Less-than HS families: -28%
  - Minority families: -31%

- Groups with smaller average losses
  - Older (62+) families: -4%
  - College grads (2- or 4-yr): -9%
  - Whites and Asians: -6%

Source: Federal Reserve, Survey of Consumer Finances
### Demographic Influences on Balance Sheets

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Source: Emmons and Noeth (2013), based on Survey of Consumer Finances

Economically Vulnerable Groups Had Risky Balance Sheets Going into the Crisis
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*Source: Emmons and Noeth (2013), based on Survey of Consumer Finances*
Our Model of Earnings Determination...

Factors outside an individual’s control:
- Cognitive ability
- Race or ethnicity
- Age

Factors within an individual’s control:
- Innate cognitive ability, $g$
- Educational attainment
- Human capital, $h$
- On-the-job experience
- Legacy of discrimination

Labor-market earnings
... And Balance-Sheet Choice

Factors outside an individual’s control:
- Cognitive ability
- Race or ethnicity
- Age

Legacies of discrimination
- Innate cognitive ability, $g$

On-the-job experience
- Educational attainment
- Human capital, $h$

Balance-sheet structure
- Financial knowledge, $f$

Incentive to acquire financial knowledge
- Savings available to invest

Financial experience and learning
- ... And Balance-Sheet Choice

Labor-market earnings
Key Implications

- Economic vulnerability and financial fragility co-exist because they have common causes, including one or more of the following:
  - Being young and inexperienced
  - Low human capital
  - Historically disadvantaged minority

- What’s new and counter-intuitive?
  - **New**: Endogenous acquisition of financial knowledge interacts with human capital (and all of its determinants)
    - See Lusardi, Michaud, Mitchell (2013)
  - **Counter-intuitive**: Balance sheets of groups with the most economic risk amplify their risk, rather than dampening it
Risky Financial Behavior and Risky Balance Sheets

- We define risky financial behavior to include:
  - Low saving rate
  - High-cost financial services
  - High debt-service-to-income ratio

- We define risky balance sheets to contain:
  - Low ratio of safe and liquid assets to income
  - High housing concentration
  - High balance-sheet leverage
1) Ratio of Safe and Liquid Assets to Annual Income Before the Crash

- All families, average 2004/2007 safe-assets-to-income ratio
  - Overall: 56%

- Economically vulnerable groups
  - Young (<40) families: 20%
  - Minority families: 19%
  - Less-than HS families: 54%

- Less-vulnerable groups
  - Older (62+) families: 126%
  - Whites and Asians: 61%
  - College grads: 63%
Ratio of Safe and Liquid Assets to Income

Ratio of Safe Liquid Assets to Family Income in 2007 Among Whites, Asians, and Other Non-Disadvantaged Minorities

<table>
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<tr>
<th>Age Group</th>
<th>Most economically vulnerable</th>
<th>Least economically vulnerable</th>
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<tr>
<td>Young (under 40)</td>
<td>27</td>
<td>11</td>
</tr>
<tr>
<td>Middle-aged (40-61)</td>
<td>58</td>
<td>30</td>
</tr>
<tr>
<td>Old (62 or over)</td>
<td>106</td>
<td>10</td>
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<th>College grad</th>
<th>High school grad</th>
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<tr>
<td>Whites</td>
<td>116</td>
<td>98</td>
<td>12</td>
</tr>
<tr>
<td>Asians</td>
<td>27</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>106</td>
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Ratio of Safe Liquid Assets to Family Income in 2007 Among African-Americans and Hispanics

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<td>15</td>
<td>13</td>
<td>6</td>
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<td>Hispanics</td>
<td>58</td>
<td>37</td>
<td>17</td>
</tr>
<tr>
<td>Others</td>
<td>61</td>
<td>17</td>
<td>17</td>
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2) Share of Total Assets in Residential Real Estate Before the Crash

- All families, average 2004/2007 RRE portfolio share
  - Overall: 39%

- Economically vulnerable groups
  - Young (<40) families: 54%
  - Minority families: 58%
  - Less-than HS families: 59%

- Less-vulnerable groups
  - Older (62+) families: 34%
  - Whites and Asians: 37%
  - College grads: 35%
Residential Real-Estate Portfolio Shares

Residential Real-Estate Portfolio Shares in 2007 Among Whites, Asians, and Other Minorities

Residential Real-Estate Portfolio Shares in 2007 Among African-Americans and Hispanics
3) Ratio of Total Debt to Total Assets Before the Crash

- All families, average 2004/2007 debt-to-assets ratio
  - Overall: 15%

- Economically vulnerable groups
  - Young (<40) families: 39%
  - Minority families: 31%
  - Less-than HS families: 16%

- Less-vulnerable groups
  - Older (62+) families: 5%
  - Whites and Asians: 14%
  - College grads: 13%
Ratio of Total Debt to Total Assets

Ratio of Total Debt to Total Assets in 2007 Among Whites, Asians, and Other Non-Disadvantaged Minorities

Ratio of Total Debt to Total Assets in 2007 Among African-Americans and Hispanics
Wealth Loss During the Crisis

Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among Whites, Asians, Other Minorities

Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among African-Americans and Hispanics
Wealth in 2010: Pre-Crisis Disparities Re-inforced by Crisis Losses

Average White or Asian Family Net Worth in 2010

Average African-American or Hispanic Family Net Worth in 2010
Ratio of African-American or Hispanic Wealth to Non-Minority Wealth

Historically Disadvantaged Minorities' Net Worth in 2010 as Share of Whites, Asians, and Other Minority Counterparts

- Young (under 40)
  - College grad: 17%
  - High school grad: 23%
  - High-school drop-out: 40%
- Middle-aged (40-61)
  - College grad: 27%
  - High school grad: 28%
  - High-school drop-out: 48%
- Old (62 or over)
  - College grad: 30%
  - High school grad: 36%
  - High-school drop-out: 38%
Can We Break the Link Between Economic Vulnerability and Financial Fragility?

- Financial-literacy training
- Cash and in-kind benefits
- Individual-Development Accounts (IDAs)
- Early-childhood enrichment
Adult Financial-Literacy Education Comes Too Late

Intervention Strategy: Financial-Literacy Training

Factors outside an individual's control:
- Cognitive ability
- Race or ethnicity
- Age
Cash and In-Kind Benefits May Not Translate into Financial Knowledge
Individual Development Accounts Intervene at Several Points

**Intervention Strategy:**

- Historically disadvantaged minority
- No on-the-job experience

- Low cognitive ability, \( g \)
- Low educational attainment
- Low human capital, \( h \)
- Low labor-market earnings

- Financial-literacy training
- Low/no financial knowledge, \( f \)
- Low/no incentive for financial knowledge

- Risky balance sheet
- No financial experience or learning
- Long-term commitment

Factors outside an individual's control:
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Individual Development Accounts
Early Childhood Interventions Target Human Capital

Intervention Strategy: Early-Childhood Enrichment

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Factors outside an individual's control:
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- Age

No financial experience or learning

Early-childhood enrichment
Why Did Economically Vulnerable Families Enter the Crisis With Risky Balance Sheets?

- Economically vulnerable families were more likely to have risky balance sheets in 2007, and then to suffer large percentage wealth losses during the crisis.

- Common causes drive both:
  - Youth and inexperience
  - Low level of human capital
  - Legacy of discrimination

- Interventions should target human-capital formation and experience-based learning.
The Macro View:
Household Wealth and the Economy

- How much wealth did the average household lose? How much has been rebuilt so far?
- What assets contributed the most to wealth losses and subsequent gains?
- Did wealth losses and deleveraging slow the recovery?
- If households are still rebuilding wealth, why is the saving rate so low?
Recovery of Average Wealth Loss: 76 Percent

- Average inflation-adjusted household wealth loss, Q1.2007 (peak) through Q1.2009 (trough)
  - $153,000
  - -22.2%

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Composition of Household Wealth
Losses and Recoveries

- Composition of gains and losses by asset type
  - Losses
    - Same order of magnitude in dollar terms on stocks, houses, and “all other assets”
  - Recoveries through Q2.2013
    - Stocks at 113% of pre-recession peak
    - Other assets at 93%
    - Household RE at 70%
Wealth Changes By Asset Type: Measured at Peak and Trough of Total Net Worth

Average Household Wealth Losses and Gains By Asset Category

Q2.2013 dollars

Sources: Federal Reserve Board, Bureau of Economic Analysis, Census Bureau
Wealth Changes By Asset Type: Measured at Peak and Trough of Housing Values

Average Household Wealth Losses and Gains By Asset Category

<table>
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<th>Asset Category</th>
<th>2006.1 through 2011.4</th>
<th>2011.4 through 2013.2</th>
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<tr>
<td>Publicly traded equity shares (held directly or indirectly)</td>
<td>(150,000)</td>
<td>(100,000)</td>
</tr>
<tr>
<td>Household real estate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>All other household assets (tangible assets, other financial assets, pensions, closely held businesses, etc.)</td>
<td>(50,000)</td>
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Sources:
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Bureau of Economic Analysis,
Census Bureau

Weakest recovery
Case, Quigley, and Shiller (2013): Housing Wealth Effect Reduced Consumer Spending

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Much If Not All of Recession Output Loss Now Seen as Permanent

Actual Real GDP
Index level set to 100 in 1997 (when actual equaled potential)

CBO Estimate of Potential Real GDP
Index level set to 100 in 1997 (when actual equaled potential)

Ann. avg. growth of CBO potential real GDP

Sources: BEA, CBO/Haver
Quarterly through Q2.2013

Index levels equal 100 in 1997

Sources:
Bureau of Economic Analysis,
Congressional Budget Office
Real House Prices May Not Return to 2006 Peak for Decades

Inflation-Adjusted CoreLogic National Home-Price Index
Average level in 2000 equals 100

Real Potential GDP Per Available Worker
Average level in 2000 equals 100

Index levels equal 100 in 1997

Projected ann. avg. growth rate, 2013-23: 1.7%

Potential real GDP per available worker
Inflation-adjusted home-price index

Sources: CoreLogic, Bureau of Economic Analysis, Congressional Budget Office

Source: Haver Analytics
Quarterly through Q2.2013
A Wealth Puzzle: If HHs are Rebuilding Wealth, Why Isn’t HH Saving Rate Higher?

Personal Saving Rate

Percent of disposable personal income

Source: Bureau of Economic Analysis / Haver Analytics
Quarterly through Q2.2013

1968-75: Previous largest protracted loss of household wealth

Q2.2013: 4.5%
Household Wealth and the Economy: Is Wealth Rebuilding Finished?

- Housing probably had the biggest effect on consumer spending and is slowest asset to recover.

- Household deleveraging continues.

- Slower projected economic growth suggests incomes and house prices unlikely to increase much.

- The typical family faces stagnant income and house prices, and still may have too much debt—it’s not easy to rebuild wealth!
Center for Household Financial Stability

www.stlouisfed.org/household-financial-stability/