
Why Did So Many Economically Vulnerable Families Enter the Crisis With Risky Balance Sheets?

February 6, 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.
Why Did Economically Vulnerable Families Enter the Crisis With Risky Balance Sheets?

- 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 and Financial Fragility

- **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
  - Old (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

<table>
<thead>
<tr>
<th>Demographic group</th>
<th>Marginal effect of belonging to a demographic group on: Safe and liquid assets relative to annual income</th>
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<td>Young families (&lt; 40 years old)</td>
<td>-16 percentage points</td>
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Source: Emmons and Noeth (2013), based on Survey of Consumer Finances
## Demographic Influences on Balance Sheets

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Demographic Influences on Balance Sheets

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<th>Demographic group</th>
<th>Safe and liquid assets relative to annual income</th>
<th>Share of assets invested in housing</th>
<th>Ratio of total debt to total assets</th>
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<td>African-Americans and Hispanics</td>
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<td>+14</td>
<td>+7</td>
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Source: Emmons and Noeth (2013), based on Survey of Consumer Finances
Innate cognitive ability, $g$

Educational attainment

Human capital, $h$

Labor-market earnings

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

Our Model of Earnings Determination...
Innate cognitive ability, $g$

Educational attainment

Human capital, $h$

Labor-market earnings

Balance-sheet structure

Financial knowledge, $f$

Incentive to acquire financial knowledge

Savings available to invest

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

Legacy of discrimination

On-the-job experience

Financial experience and learning

.... And Balance-Sheet Choice
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
  - Old (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

Ratio of Safe Liquid Assets to Family Income in 2007 Among African-Americans and Hispanics
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
  - Old (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
  - Old (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

2010 dollars

- College grad
- High school grad
- High-school drop-out

Average African-American or Hispanic Family Net Worth in 2010

2010 dollars

- College grad
- High school grad
- High-school drop-out
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
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

Historically disadvantaged minority

Low cognitive ability, g

Low educational attainment

Low human capital, h

No on-the-job experience

Low labor-market earnings

Low/no incentive for financial knowledge

Low/no savings to invest

Financial-literacy training

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

Risky balance sheet

Low/no financial knowledge, f

No financial experience or learning
Cash and In-Kind Benefits May Not Translate into Financial Knowledge

Intervention Strategy: Redistribution in Cash or In Kind

Historically disadvantaged minority

Low cognitive ability, $g$

Low educational attainment

Low human capital, $h$

No on-the-job experience

Cash or in-kind benefits

Low labor-market earnings

Low/no financial knowledge, $f$

Low/no incentive for financial knowledge

Low/no savings to invest

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

No financial experience or learning
Individual Development Accounts Intervene at Several Points

Intervention Strategy: Individual Development Accounts

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

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

Factors that can be influenced:
- Financial-literacy training
- Long-term commitment

- Low cognitive ability, \( g \)
- Low educational attainment
- Low human capital, \( h \)
- Low labor-market earnings
- Low/no financial knowledge, \( f \)
- Low/no incentive for financial knowledge
- Low/no savings to invest

Individual Development Accounts
Early Childhood Interventions Target Human Capital

Intervention Strategy: Early-Childhood Enrichment

Historically disadvantaged minority

No on-the-job experience

Low cognitive ability, $g$

Low educational attainment

Low human capital, $h$

Low labor-market earnings

Risky balance sheet

Low/no financial knowledge, $f$

Low/no incentive for financial knowledge

Low/no savings to invest

Factor outside an individual's control:
- Cognitive ability
- Race or ethnicity
- Age

Early-childhood enrichment
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.
Appendix

- Balance-sheet leverage in 2010
Non-Minorities: All 9 Subgroups Had Higher 2010 DTA Ratios Than Before the Crisis
Minorities: 8 of 9 Subgroups Had Higher 2010 DTA Ratios Than Before the Crisis