FEDERAL RESERVE BANK of NEW YORK

The Financial Crisis at the Kitchen Table: Recent Trends in Household Debt and Credit

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How have households been affected?

Evidence (eg. Chakrabarti et al, 2010) indicates that

The impact of the recession has been widespread:

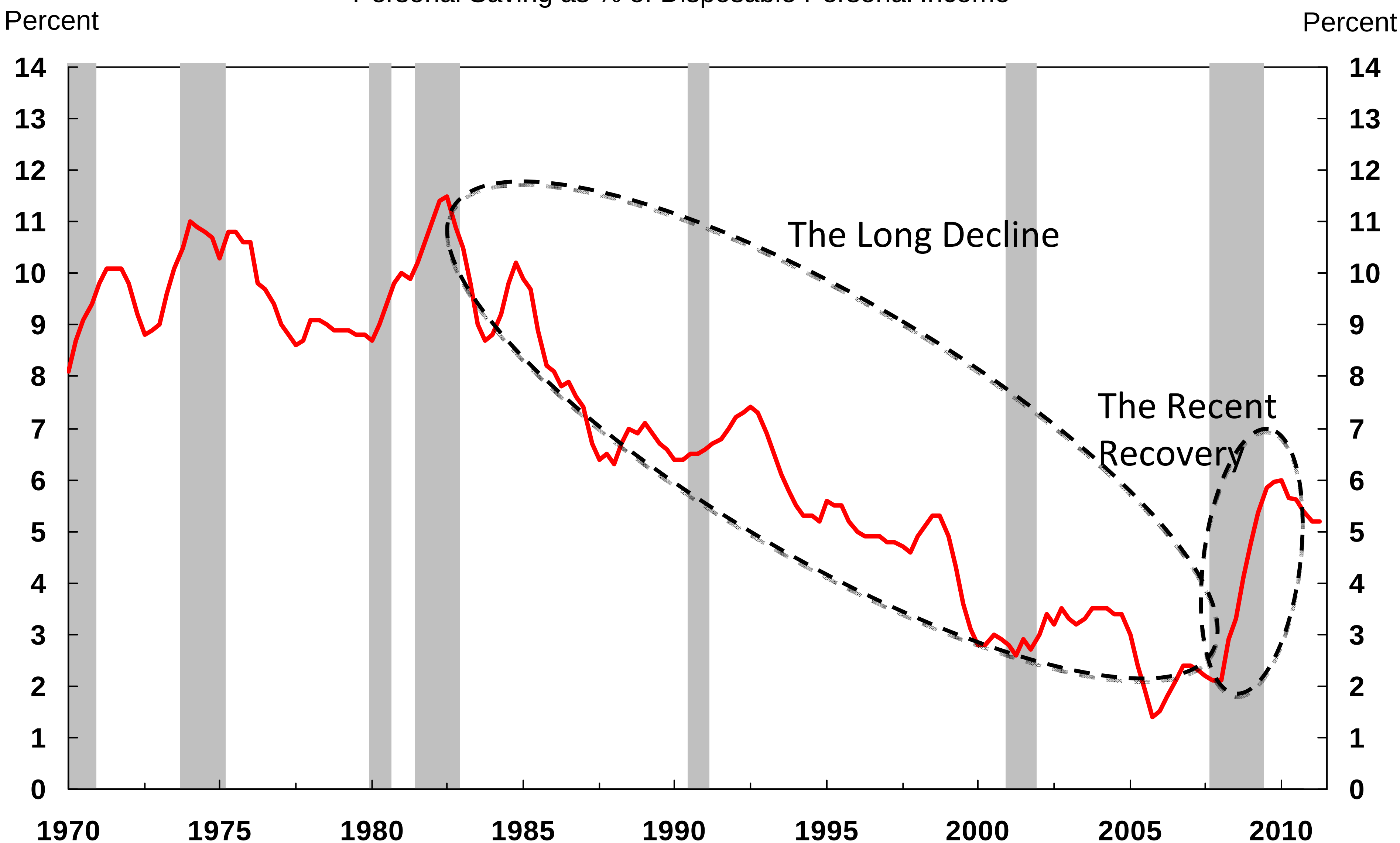
Large proportions of all age and income groups experienced at least one form of financial distress

- Declines in housing and stock wealth were larger among higher-income and older households
- Unemployment and income declines were most common among younger and lower-income households

Led to a big drop in spending and increase in saving

Personal Saving Rate

Personal Saving as % of Disposable Personal Income



Source: Bureau of Economic Analysis (NIPA)

Note: SAAR 4 Quarter MA

How did households increase saving?

What is the main channel of increased saving?

- Changes in allocations to retirement and other savings accounts
- Changes in household debt, including mortgage and non-mortgage debt

What is the role of credit market tightening?

We analyze these questions using two unique data sources

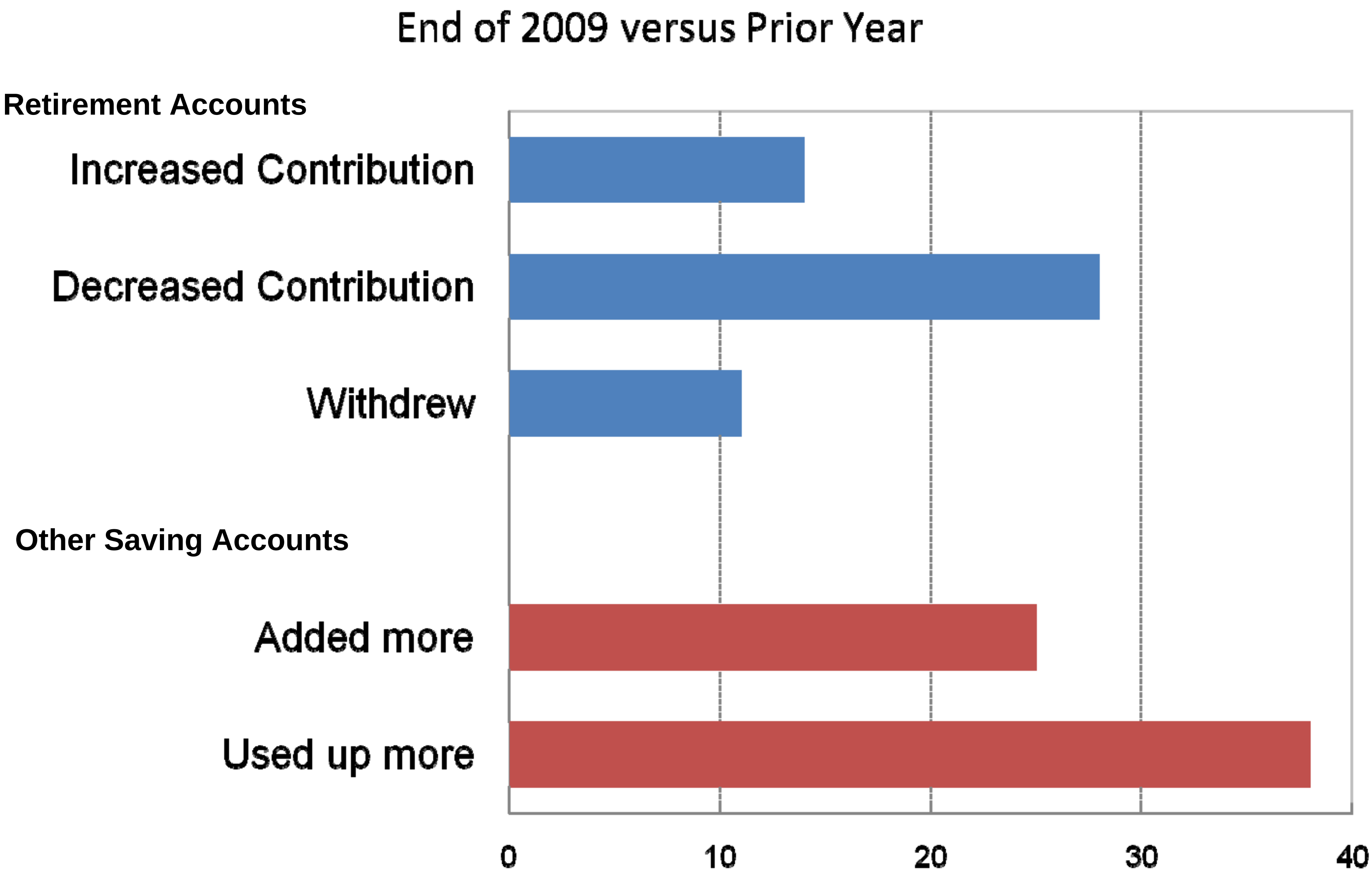
Data Sources

- **RAND's American Life Panel**, an internet-based survey. Information on household financial decisions and expectations from two ***survey modules***:
  - RAND (Hurd and Rohwedder) - fielded Nov 2008
  - FRBNY - fielded Nov 2009-Jan 2010

- **FRBNY Consumer Credit Panel**

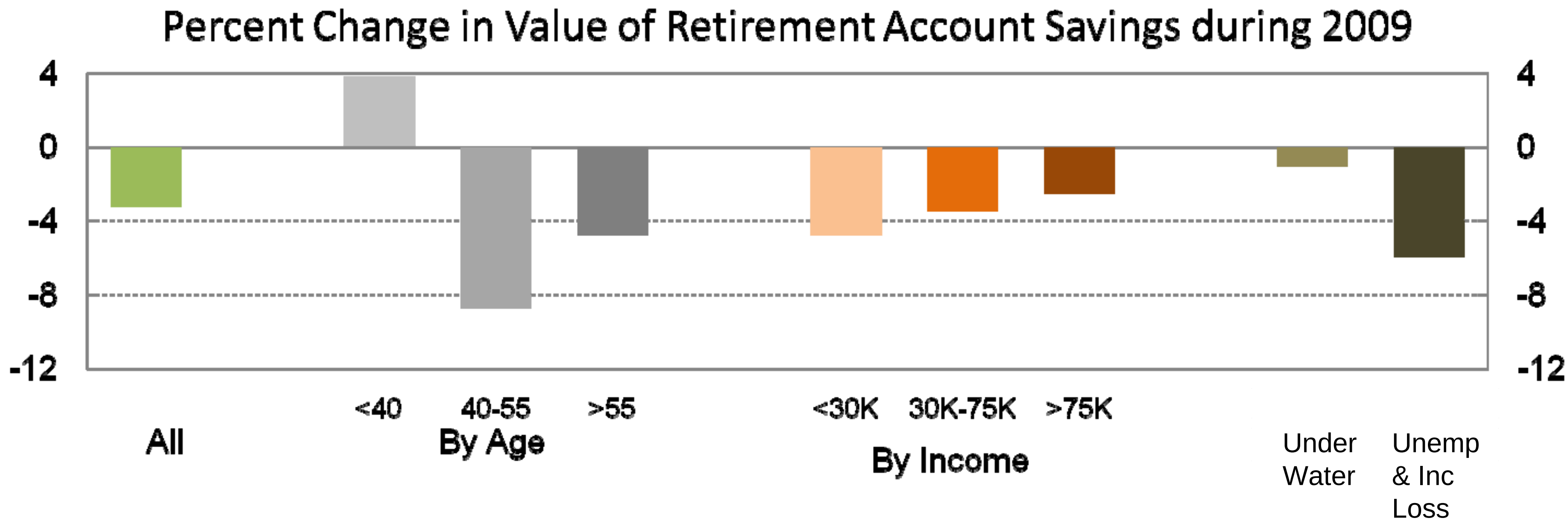
  Administrative data from credit reports providing detailed information on household debt and credit from 1999-2011

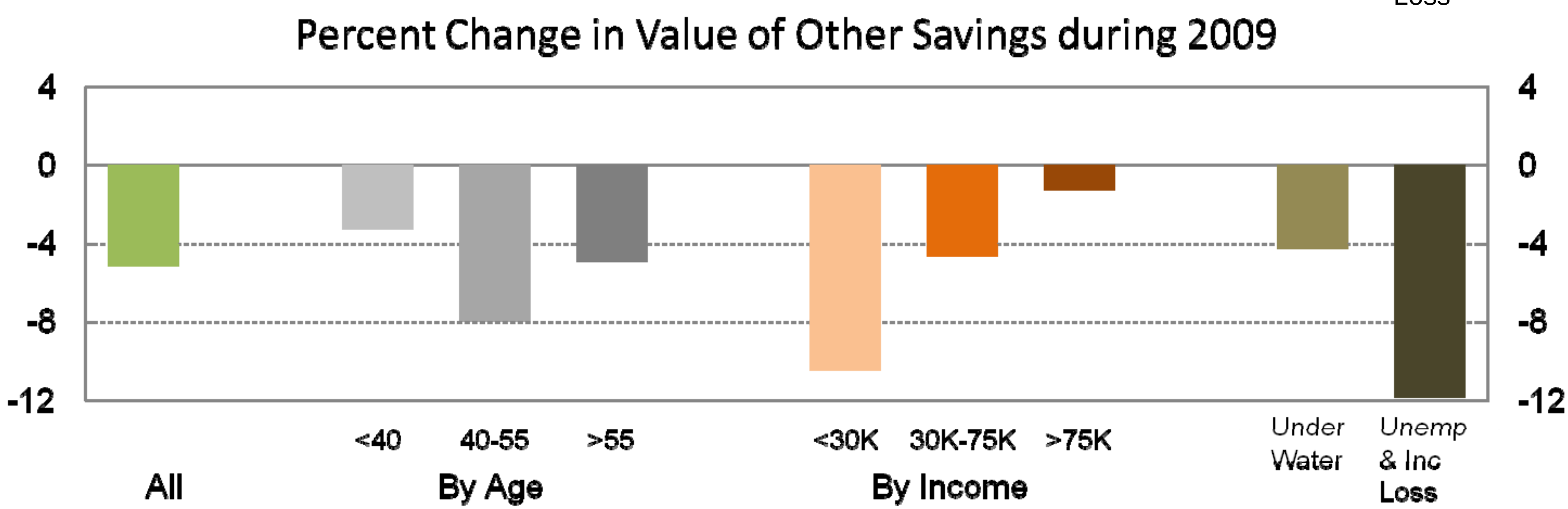
Changes in Saving Accounts



Source: FRBNY-ALP Survey on Saving

Changes in Saving Accounts





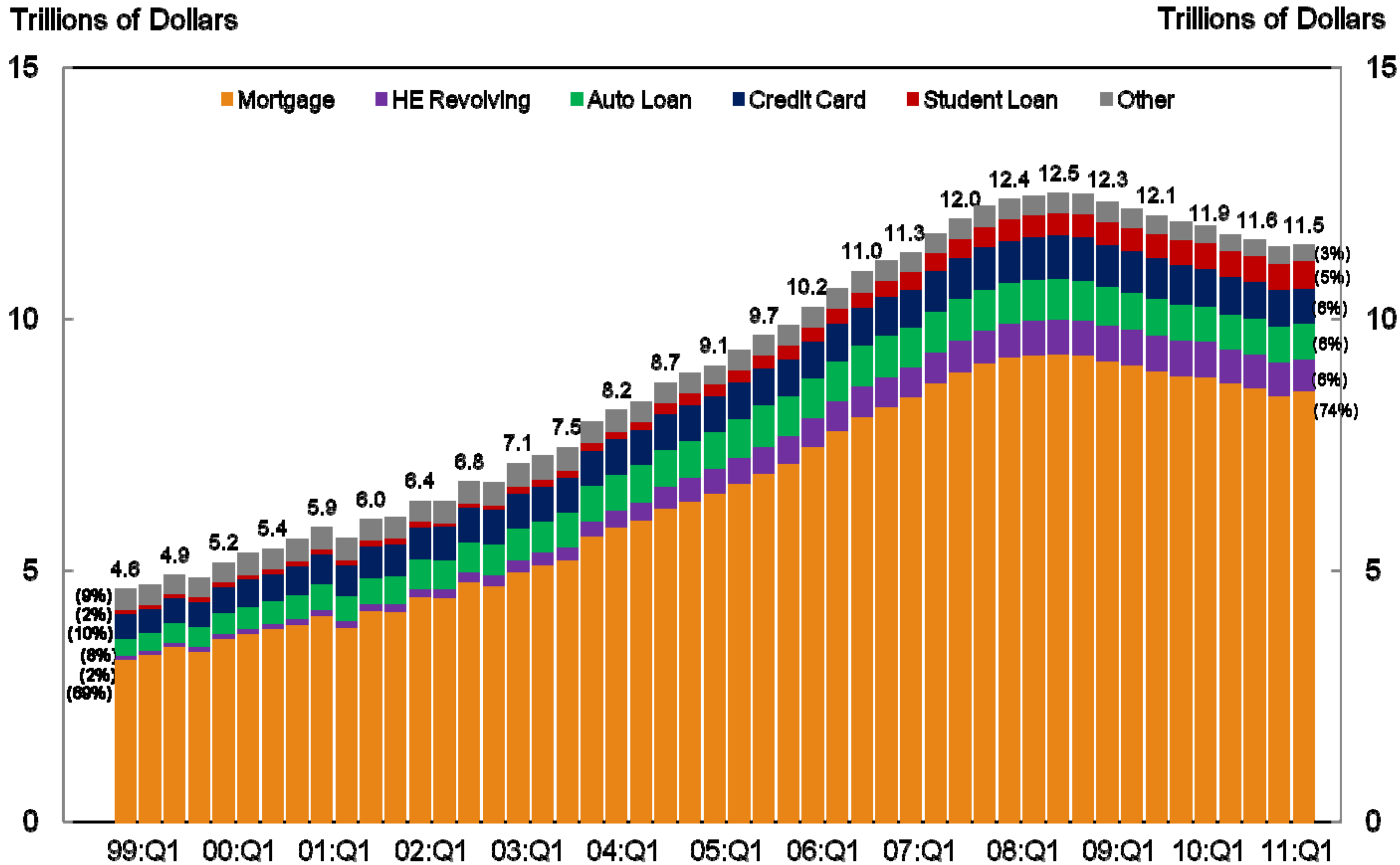
Source: FRBNY-ALP Survey on Saving

Changes in Saving Behavior

Survey evidence indicates that:

- More households reduced contributions or withdrew funds from their retirement accounts than increased contributions
- More households withdrew funds from their other savings accounts than added to them
- Overall, the average value of savings in retirement accounts and other savings accounts fell during 2009
- Largest decline in savings for those with big income drop

Total Debt Balance and its Composition



Source: FRBNY Consumer Credit Panel

Aggregate Trends in Household Debt

- Consumer indebtedness rose from $4.6 trillion in 1999Q1 by 170% to a peak of 12.5 trillion in 2008Q3.
- Over 80% HH liability is home-secured, growing from 3.3 to 10 trillion over the period, accounting for 6.7 of the total 7.9 trillion increase
- Other consumer debt nearly doubled, 1.3 to 2.5 trillion
- Household debt has decreased by roughly 1 trillion since its 2008Q3 peak. Currently at 11.5 trillion and holding steady in recent quarters.

Delinquency

- Overall delinquent debt grew from 4% of balances in 2005 to 11.1% of balances in 2010Q3
  - Debt 90+dpd grew from 2% to 8% of balances. Peak delinquency was 2009Q4.

- Foreclosures and bankruptcies grew from 691,000 and 855,000, respectively, in 2006 to roughly 2 million each in 2009.

- As expected, foreclosures and bankruptcy are concentrated in the 4 states that experienced a pronounced housing cycle: AZ, CA, FL, NV.

Why Did Household Debt Fall?

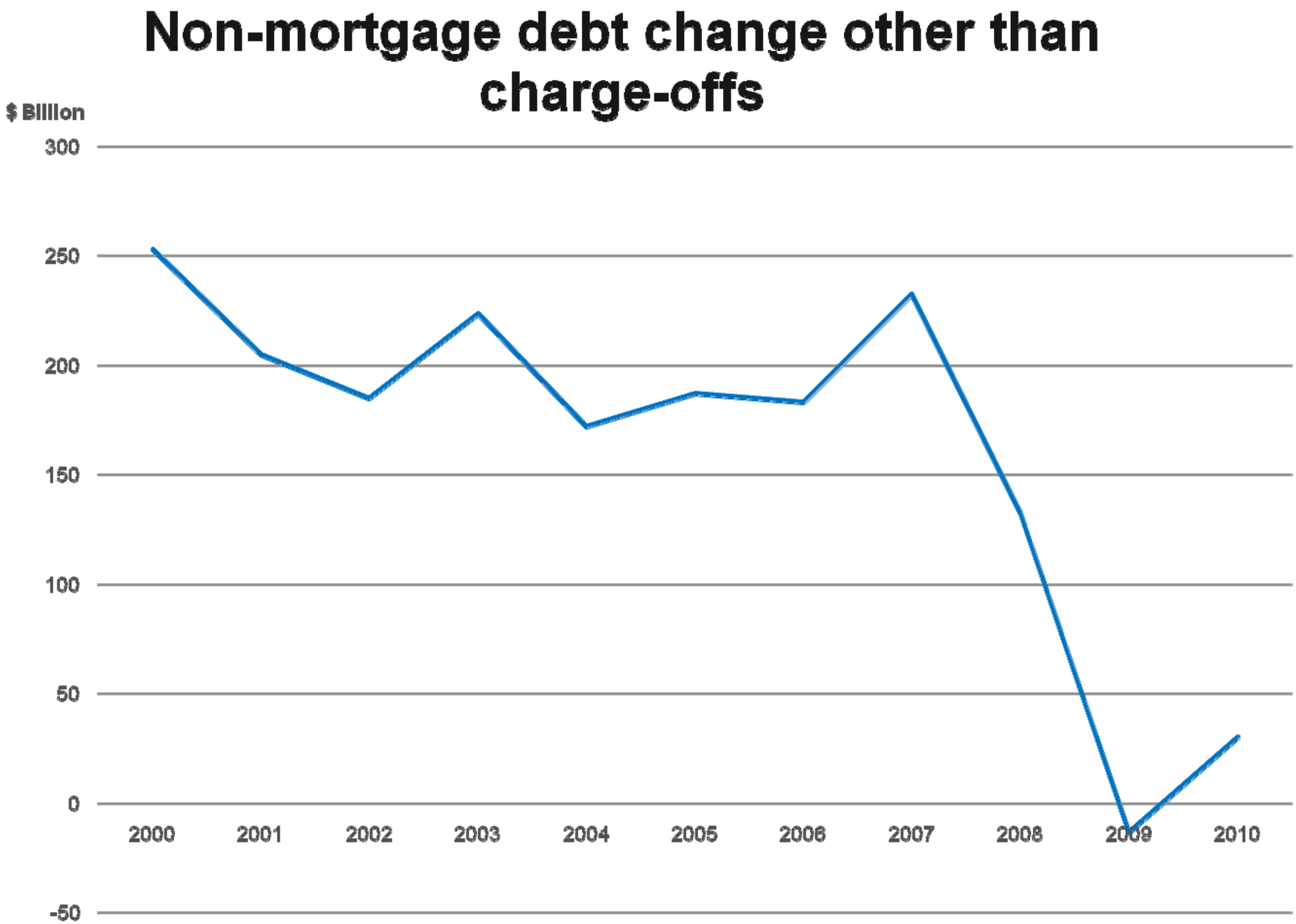
i. Declining consumer use of, and demand for, credit

ii. Declining lender supply of credit

iii. Lenders writing off an increasing amount of nonperforming debt as a result of the sudden increase in default rates

Since a dramatic climb in charge-offs coincided with the decline in consumer debt, blogosphere contributions, for example Whitehouse *WSJ* 2010, have suggested that the debt decline is due entirely to (iii); i.e., consumer behavior has not changed.

Central question: Did debt decline due to charge-offs or increased consumer frugality?



Source: FRBNY Consumer Credit Panel

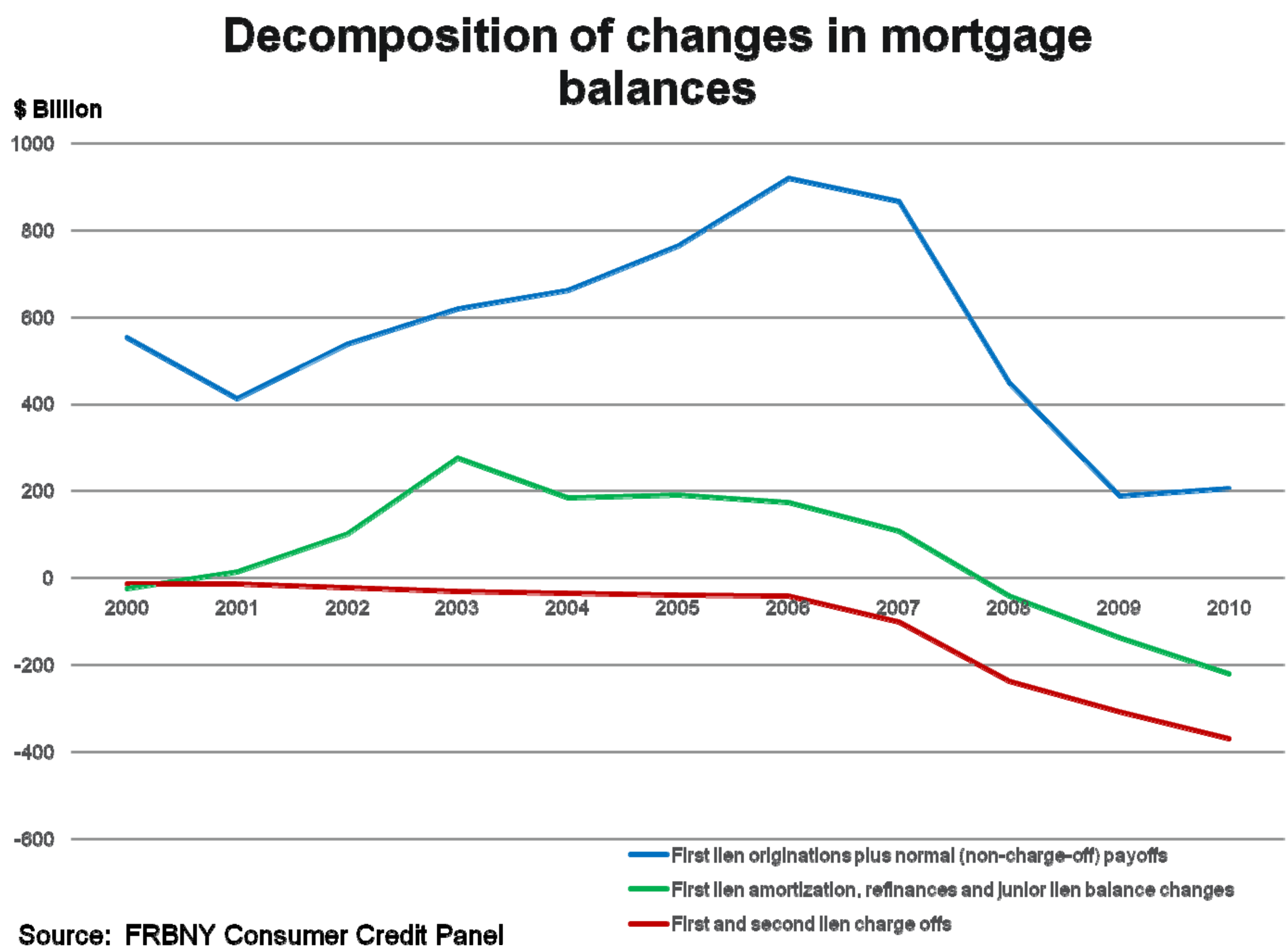
The case of mortgages

In the case of mortgages, inferring changes in debt associated with charge-offs and consumer activities is more complicated.

Suppose, for example, that:

- a borrower defaults on a $100,000 mortgage and the lender repossesses the property
- lender re-sells for $80,000 with 20% down payment
- new mortgage for the second owner equals $64,000
- Total charge-off $100,000, net change in aggregate mortgage indebtedness $36,000.

→ We break mortgage changes down into those attributable to charge-off, transactions and non-transaction repayment.



Decomposition of changes in mortgage balances
$ Billion
1000
800
600
400
200
0
-200
-400
-600
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
First lien originations plus normal (non-charge-off) payoffs
First lien amortization, refinances and junior lien balance changes
First and second lien charge offs
Source: FRBNY Consumer Credit Panel

Contributions of repayment and charge-offs

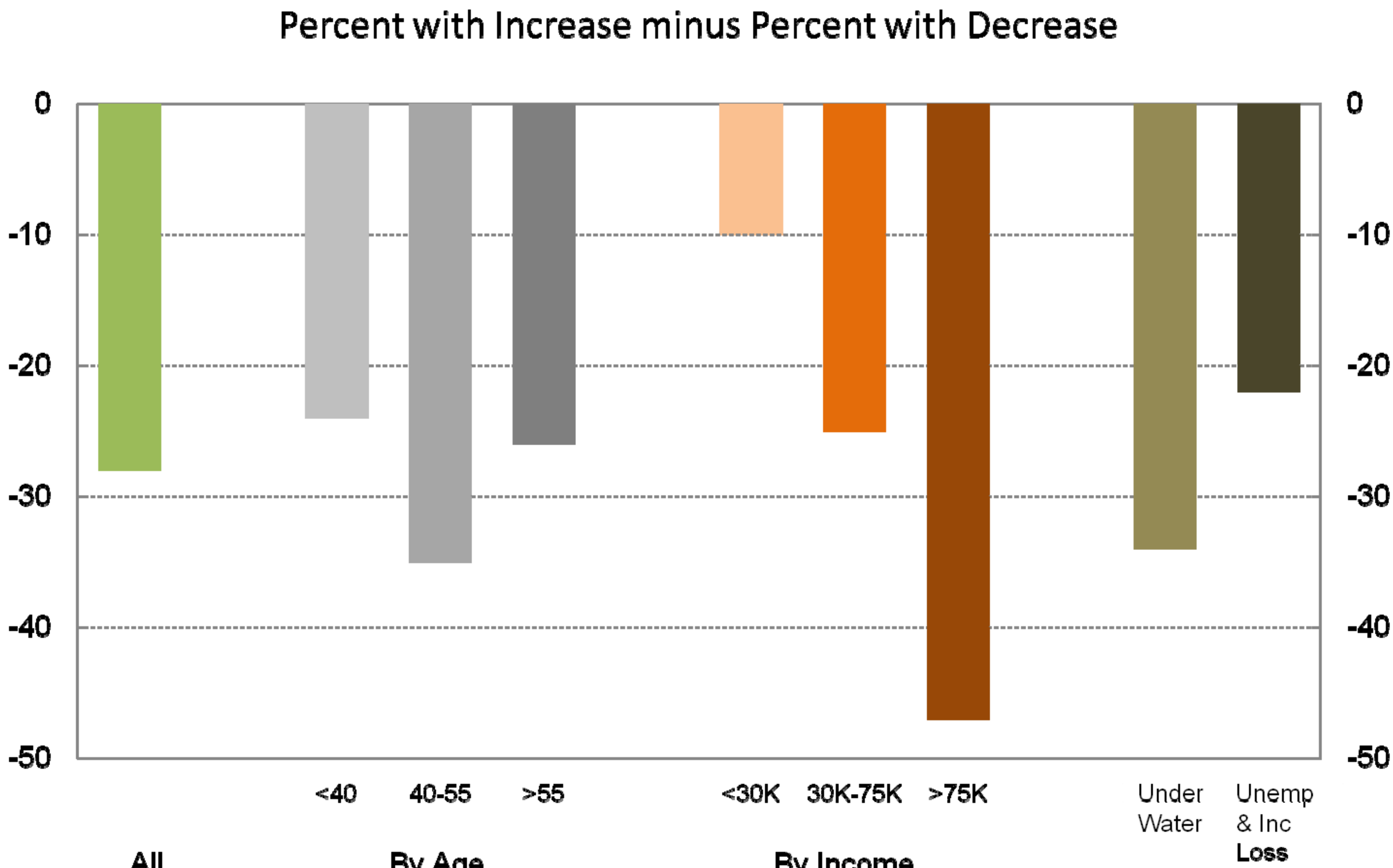
- Hence borrowing contributed $330 billion to consumer cash flow on average per year from 2000-2007.

- By 2010, consumers were repaying $190 billion/yr, representing a $520 billion change in (annualized) cash flow over just 3 years. This looks like a meaningful change in behavior.

- Of course, charge-offs also contribute to declining debt. In 2010 they reduced mortgage debt by $370 billion.

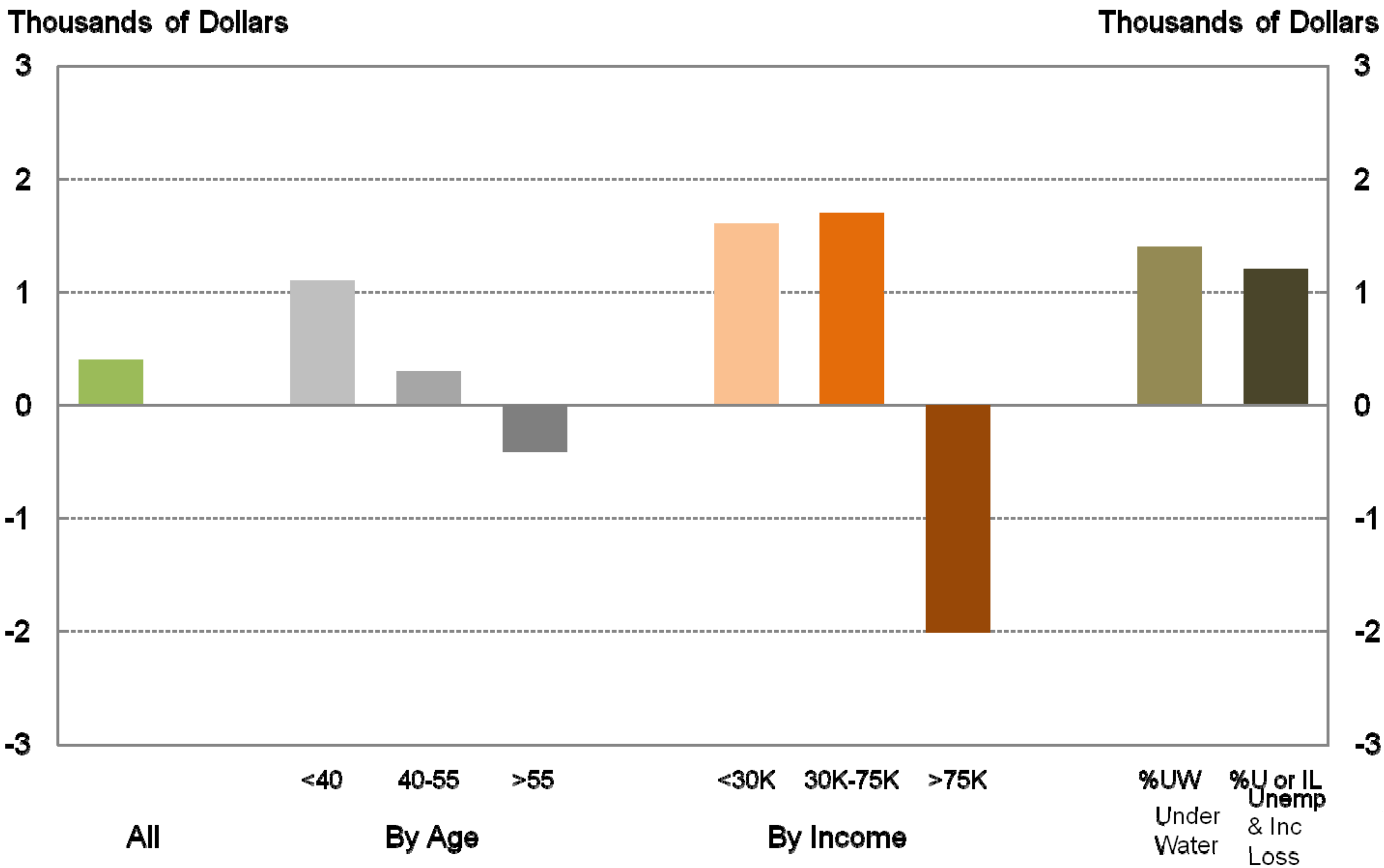
What does survey evidence tell us about changes in household debt?

Changes in Mortgage Debt during 2009



Source: FRBNY-ALP Survey on Saving

Changes in Non-Mortgage Debt during 2009



Source: FRBNY-ALP Survey on Saving

Changes in Household Debt

Survey evidence indicates that households:

- Are finally paying down their mortgage debt
- No longer increasing non-mortgage debt (on credit cards, auto loans and student loans combined)
- With higher income households reducing both forms of debt

Consumer frugality voluntary?

So consumers are indeed becoming more frugal. But is this a voluntary moderation of credit use, or an involuntary result of tightened lending standards?

Some evidence of reduced demand for credit:

- Many survey participants reported that they closed credit card accounts at own request: two-third of account closing initiated by borrower
- Drop in credit report inquiries, usually triggered by consumer applications for credit.
- Big drop in cash-out mortgage refinancing

Contribution of tightening credit standards?

Evidence of stricter lending standards:

- In our survey we find 13% of consumers had experienced a bank closing one of their credit card accounts during 2009
  - Consistent with reports that Citibank, Bank of America, Advanta, Chase Bank and others closed a large number of accounts, particularly troubled and inactive accounts, in 2009.
- Decline of 28% in credit card limits between 2008Q3 to 2010Q3 -- rarely requested by consumers
  - Aligns with SLOOS 2008-2010, with large fractions of loan officers report lowering credit card limits for existing consumer accounts between April 2008 and early 2010
- Increase in down-payment requirements (increase in LTV ratios) on new mortgages
- Together, the data suggest that lenders have acted to curtail consumer credit since 2007, in the face of growing delinquency and broader financial market uncertainty.

Summary of Findings

- During the 2007 recession, households increased saving, but did so mainly by paying down mortgage debt

- The consumer debt reduction between 2007 and 2010 led to a decrease of $520 billion in annualized cash flow available for consumption.

- Charge-offs led to another $370 billion decrease in consumer indebtedness.

- The increase in consumer frugality appears to be in part voluntary, in the sense of a true reduction in demand for credit, and in part involuntary, as lenders reigned in available credit in response to changes in credit markets

Thank you for your attention!