

MACROECONOMIC FLUCTUATIONS AND FINANCE: THE ROLE OF HOUSEHOLDS

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THE BASIC STORY, PHASE I

Real-estate binge in the 2000s

Buildup of housing and consumer durables

Buildup of mortgage, car, and credit-card debt

Financial institutions thinly capitalized

THE BASIC STORY, PHASE II

Real-estate prices began to fall in 2007 and have fallen ever since.

Financial institutions failed because of declining asset values; others severely stressed. Credit to households dramatically tightened.

Homebuilding and consumer spending declined sharply and remain low today.

The zero lower bound prevented interest rates from falling far enough to maintain full employment.

GUERRIERI AND LORENZONI

Definitely a good account of the basic issue of how credit tightening lowers the equilibrium interest rate.

Not clear that the sticky-price, flexible-wage version explains what happens when the ZLB binds.

I strongly agree that moving to a DMP labor market and adding business capital are the next steps.

EGGERTSSON AND KRUGMAN

This paper lies between the beautiful and transparent simplicity of Krugman (1998) and the let's-do-it-right-on-the-computer approach of Guerrieri and Lorenzoni.

Much of the complication necessarily arises from replacing Krugman's driving force of declining consumption endowment with credit tightening. I think the paper is successful in capturing the effects of tightening.

The New Keynesian part of the paper shares the opacity of most NK modeling—the story is inevitably sufficiently complicated that only the most determined student can follow it.

I think the approach in Christiano, Eichenbaum, and Rebelo's recent *JPE* paper might be better—embed the new ideas in an otherwise standard computer-based NK

MIDRIGAN AND PHILIPPON

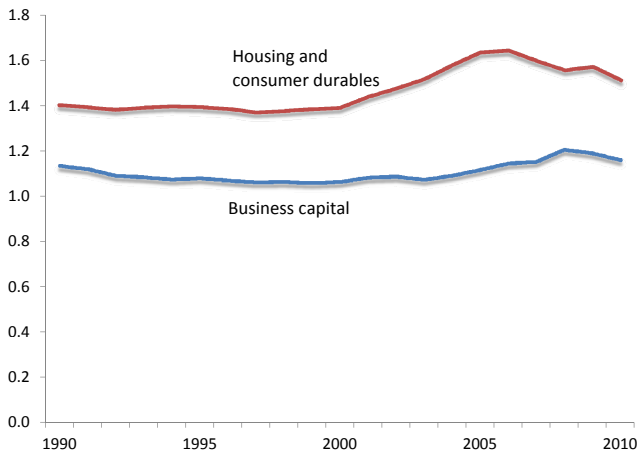
A key distinction is that liquidity is available immediately but credit takes one period to arrange.

Like many papers tackling the question of why the crisis resulted in large employment declines, this one has to include a mechanism that prevents the workers released when local consumers are buying less from making stuff for other consumers.

The geographic restriction here is analogous to the zero lower bound in intertemporal models.

I'll present evidence that the focus on household credit is right on point.

RATIOS OF CAPITAL AND DURABLES TO GDP



DELEVERAGING IS CENTRAL

Business credit tightened, but most GDP arises in businesses that are not credit-dependent

Huge tightening of credit to households and most are credit-dependent

THE TYPICAL HOUSEHOLD HAS ALMOST NO LIQUID-ASSET BUFFER

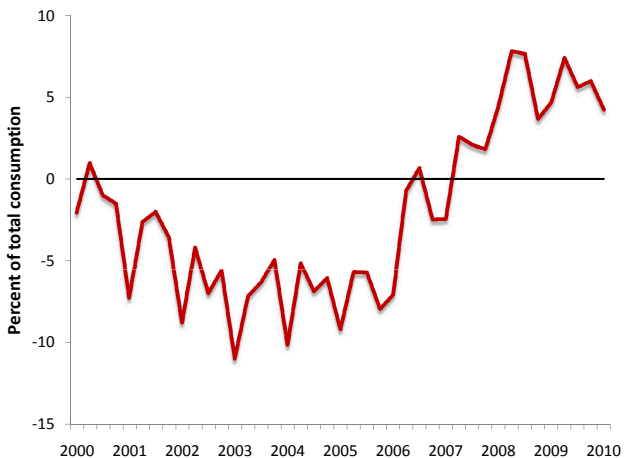
Define a family as liquidity-constrained if holdings in savings accounts and the like are less than two months of income.

In the 2007 Survey of Consumer Finances, households illiquid by this standard earned 58 percent of all income.

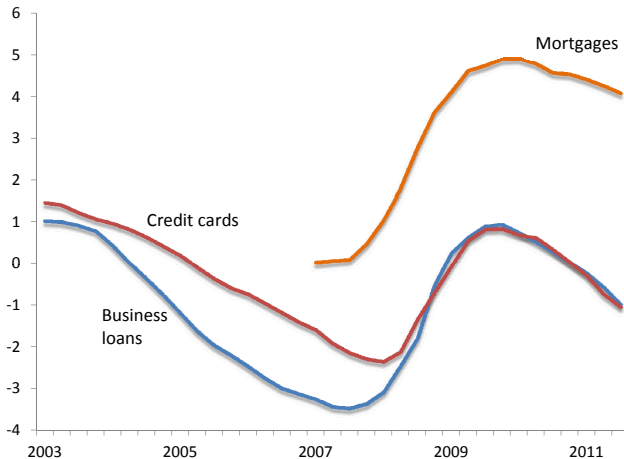
Many quite prosperous families hold essentially no liquid financial assets (Kaplan and Violante (2011)).

The fraction of households that were constrained—74 percent—is even higher because lower-income households are more likely to be constrained.

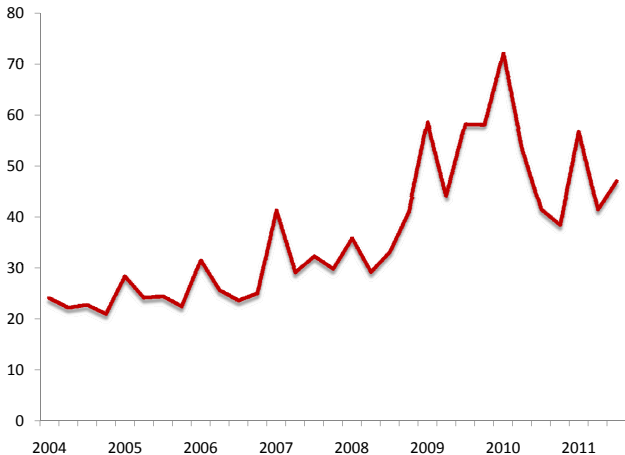
BURDEN OF DEBT SERVICE



INDEXES OF LENDING STANDARDS INFERRED FROM THE FRB SENIOR LOAN OFFICER SURVEY



INDEX OF GOOGLE SEARCH QUERIES FOR THE TERM “WITHDRAWAL PENALTY”



THE PRIMACY OF THE HOUSEHOLD CHANNEL IN THE COLLAPSE OF GDP AFTER THE FINANCIAL CRISIS

New paper almost ready for distribution

PURCHASES, TRILLIONS OF DOLLARS

	<i>2008:3 actual</i>	<i>2010:4 actual</i>	<i>Change</i>	<i>Non-crisis model solution</i>	<i>2010:4 departure from model</i>
	(1)	(2)	(3)	(4)	(5)
Household channel	11.65	10.75	-0.90	12.83	-2.08
Consumer non-durables and service	9.92	9.29	-0.63	10.29	-1.00
Consumer durables	1.22	1.12	-0.09	1.53	-0.40
Residential construction	0.51	0.33	-0.18	1.02	-0.68
Business channel	1.78	1.49	-0.30	1.78	-0.30
Inventory investment	-0.05	0.04	0.09	-0.04	0.08
Business fixed investment	1.83	1.45	-0.38	1.83	-0.38
Other purchases					
Net exports	-0.83	-0.50	0.33	-1.01	0.51
Government purchases	3.22	3.02	-0.20		
Total trend-adjusted real GDP	15.82	14.76	-1.07	16.63	-2.07 ¹⁴

ESTIMATED BEHAVIORAL SHIFTS CAUSED BY THE CRISIS

<i>Component of purchases</i>	<i>Behavioral shift induced by crisis</i>
Household channel	-1.28
Consumer non-durables and services	-0.43
Consumer durables	-0.21
Residential construction	-0.64
Business channel	-0.11
Inventory investment	0.14
Business fixed investment	-0.25
Net exports	0.51

ESTIMATED EFFECTS OF THE CRISIS

<i>Affected component of purchases</i>	<i>Departure from forecast</i>	<i>Effect of crisis-period exogenous variables</i>	<i>Effect of increase in government purchases multiplier</i>	<i>Effect of household shifts</i>	<i>Effect of business shifts</i>	<i>Effect of all shifts</i>
	(1)	(2)	(3)	(4)	(5)	(6)
Household channel	-2.07	0.05	-0.22	-2.17	-0.08	-1.89
Consumer non-durables and services	-1.04	-0.05	-0.11	-1.07	-0.06	-0.88
Consumer durables	-0.42	0.02	-0.06	-0.45	-0.02	-0.38
Residential construction	-0.60	0.08	-0.05	-0.64	0.00	-0.64
Business channel	-0.18	0.04	-0.02	-0.14	-0.12	-0.21
Inventory investment	0.12	0.01	0.00	-0.05	0.13	0.11
Business fixed investment	-0.30	0.03	-0.01	-0.09	-0.26	-0.31
Net exports	0.41	-0.07	-0.03	0.00	0.00	0.51
Total trend-adjusted real GDP	-2.04	0.02	-0.27	-2.30	-0.20	-1.59

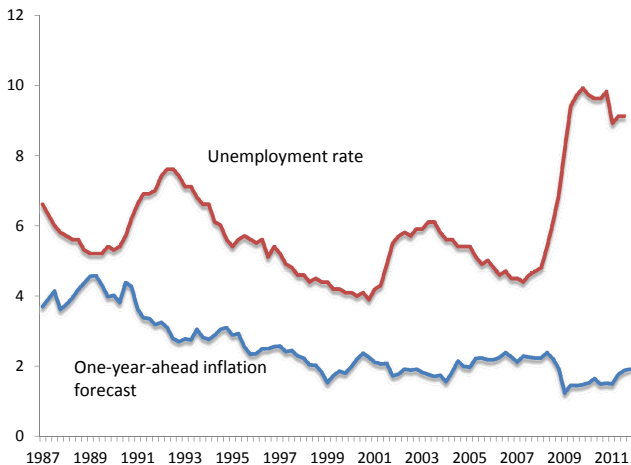
THE ZERO LOWER BOUND ON THE INTEREST RATE

The nominal interest rate can't be negative, because investors can always hold currency.

The inflation rate in today's economy is stuck around 1 or 2 percent per year.

So the real rate cannot be lower than -1 or -2 percent.

THE NEAR-EXOGENEITY OF INFLATION IN TODAY'S ECONOMY



INFLATION OUTLOOK

Professional forecasters, 10 year: 2.2 percent

Consumer expectations, 5 to 10 year: 3.0 percent

Treasury inflation-protected breakeven, 5 year: 2.9 percent

No sign that providential inflation will break out, resulting in lower real rates and faster recovery

THE CENTRAL BANK'S INFLUENCE OVER INFLATION

Suppose the central bank has a policy lever that controls the rate of inflation π .

Any reasonable central bank would pick a rate of inflation that exceeded minus the equilibrium real interest rate ($\pi > -r^*$), so that the nominal rate would be positive in equilibrium and the zero bound would cause no mischief.

The zero lower bound binds when the central bank loses control of the rate of inflation.

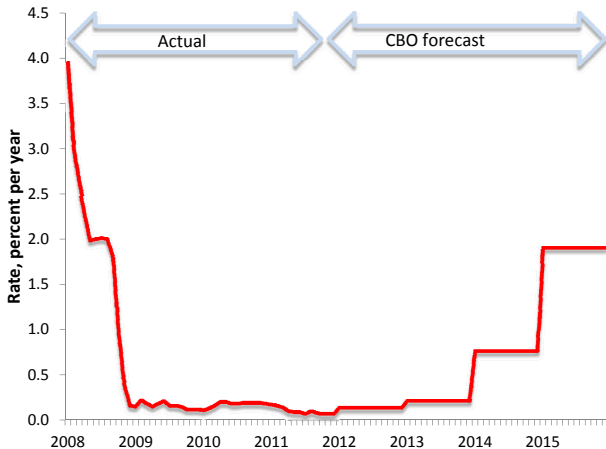
REAL RATE OF INTEREST

The real rate is the nominal rate minus the rate of inflation.

Thus, if the nominal rate zero, the real rate is minus the rate of inflation.

If the rate of inflation is exogenous, the real rate is pinned at minus the rate of inflation.

A LONG PERIOD WITH THE NOMINAL SHORT RATE PINNED AT ZERO



THE U.S. ECONOMY IN OCTOBER 2008 AND OCTOBER 2009, WHILE AT THE ZERO LOWER BOUND

