

Reflections on Minsky's Investment Theory in the Great Recession

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Financial Instability 2007 – 2010

- Most significant financial crisis since 1930s
 - Financial panics and asset prices
 - Home prices, equity prices, sovereign debt
 - Deep recession
- Fits broad outline of Minsky process: finance as a source of instability
- Details less clear. Minsky provides a framework for analysis, but each crisis unique

Plan for Lecture

- Investment theory central to financial instability hypothesis
- Overview of Minsky investment theory
 - > Focus on firm behavior and how it evolves dynamically over the cycle
 - > Overlap with Eric Tymoigne
- Consider relevance of investment theory for the Great Recession
 - > Recognize that proximate source of recent financial crisis is household sector

Some Investment Basics

- The “demand price”
 - > Quasi rents and capitalization
 - > Declining in absence of financial effects?
 - Technology
 - Bigger effect: expectations under uncertainty (Keynes, GT, chapter 12)
 - Capacity utilization
- Supply price: costs of production
- Like Q theory, but ...
 - > Conception of uncertainty
 - > No presumption that equity prices fully reflect entrepreneurial perception of quasi rents

“Investment is a financial phenomenon” (209)

- ◉ “A decision to invest ... is always a decision about a liability structure” (192)
 - > Financial trails link current behavior to past; condition future
- ◉ “Lip” diagram adds key financial effects
 - > Internal funds
 - > Borrowers' risk (subjective)
 - Further deviation from conventional Q theory
 - Entrepreneurial perception; not necessarily in market prices (Crotty and corporate control)
 - > Lenders' risk (in contracts)
 - > Margins of safety
- ◉ What drives investment?
 - > Expectations of quasi-rents
 - > Changes in cash flow
 - > Emphasis on evolving conditions of finance: what margin of safety is necessary?

Evidence: Cash Flow

- Empirical implication: higher cash flow raises I holding “demand factors” constant
- Identification problem: correlation of profits with expectations and capacity utilization
- Controls for demand
 - > Sales and accelerator variables
 - > Tobin’s Q : forward-looking expectations of markets. A sufficient statistic for investment demand?
- Heterogeneity in micro data
- Results and influence
 - > Surprising impact, even in mainstream
 - > “As if” criticisms of empirical results

Evidence: Debt and Fragility

- Financial trails constrain current spending
- Debt, fragility, and investment
 - > How financial trails constrain current I
 - > Harder identification problem, can't use "predetermination"
 - > Some success with IV
- Challenge of modeling subjective factors: case studies vs. econometrics

Minsky and the Mainstream – Part 1

- “As the standard interpretation of Keynes was assimilated to traditional economics, the emphasis upon finance and debt structures that was evident in the 1920s and 1930s was lost. In today’s standard economic theory, an abstract nonfinancial economy is analyzed” (193)
 - Modigliani-Miller & Jorgenson
- Asymmetric information
 - Simple intuition: common information about outcome distributions; but firm’s “draw” is private information
 - Capital market “imperfections;” semantic contrast with Minsky
 - Cash flow avoids agency problems
 - Intermediation as “technology”

Minsky and the Mainstream – Part 2

- Newer features of mainstream models
 - Credit channel for monetary policy
 - “Shocks” to financial factors propagate, and possibly even initiate, real fluctuations
- But missing:
 - Macro dynamics of finance: systematic tendency to fragility
 - Importance of uncertainty

Uncertainty vs. Asymmetric Information

- A.I. logically sufficient for financial effects
- Is A.I. necessary with uncertainty?
 - > Objective common knowledge of outcome distributions does not exist
 - > Both borrowers and lenders probing financing possibilities; expectations and practices evolve
 - > Financial effect on borrowers alone (borrowers' risk)
 - > Lenders impose constraints due to perceptions, not necessarily A.I.
- Uncertain and A.I. are complements, not substitutes
 - > Heterogeneity in a complex market economy

Cycle Dynamics of Investment

- Endogenous transition from stable, robust financial structure to fragile
 - > Systematic dynamics of “Q”
- Tendency to transform from long-term to short-term financing
 - > Hedge, speculative, Ponzi
- Low-risk practices in early cycle
- But perception appropriate financial practice changes systematically
 - > More aggressive finance => rising fragility
- The “Minsky Moment” and stress-test analogy

Minsky is a Keynesian

- More aggressive finance => more spending
=> more income to “validate” aggressive positions
 - > Fundamental direction of instability is upwards
- Need Keynesian demand effects
- Proximate constraint on output (most of the time) is demand; economy not “resource (or labor) constrained”
 - > A “radical” Keynesian conception; contrast with mainstream New Keynesian view

Role of Uncertainty in Dynamics

- Minsky may not emphasize uncertainty to the same extent as others
 - > Keynes, Davidson, Crotty
- But it plays a fundamental role
 - > “Success breeds a disregard of the possibility of failure” (237)
 - > Perceptions of risk and acceptable financial structure evolve => uncertainty
 - > Convention and expectations

Are Agents “Irrational” in Minsky?

- Bernanke comment (1983, AER): If fragility is systematic, why not anticipated?
- Conception of uncertainty
 - > Role of convention and generalized “adaptive” expectations
 - > Backward-looking “quant” modeling
- Behavioral psychology and social herding

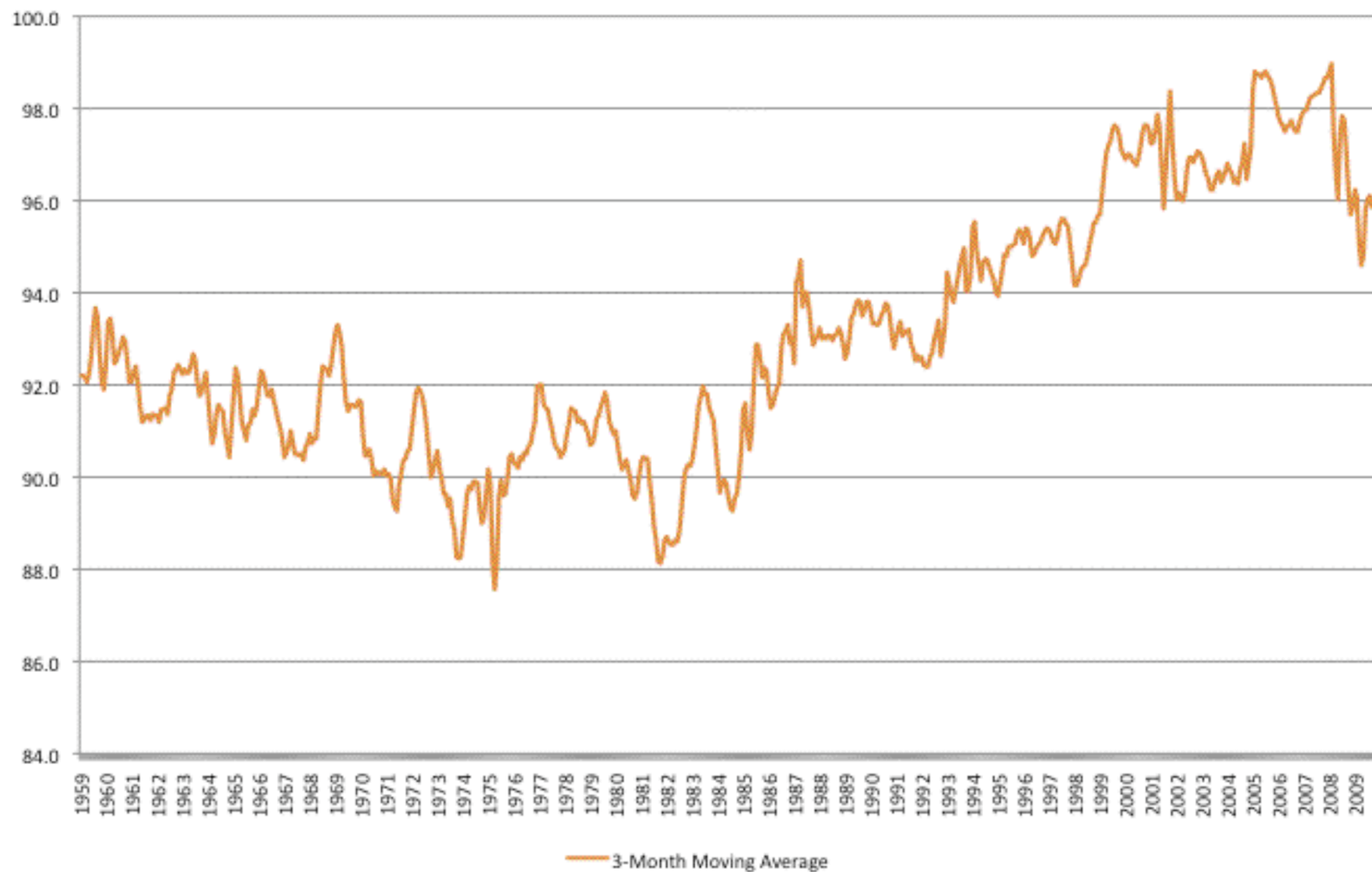
Investment or Consumption?

- Minsky: Financial instability from investment finance.
 - > Recognize role of household (1975) but “fairly well known and relatively stable” (35); contrast with investment
 - > “Behavior of consumption [is] secondary” (191)
- Why? U.S. consumption in Minsky’s formative years
 - > Strong and stable; based on wage growth
 - > Limited household finance
 - > Mortgages: low, fixed interest rates, 20%+ down payments; stable housing prices
 - > Auto loans: relatively short terms; collateral
- Recent experience: is Minsky relevant?

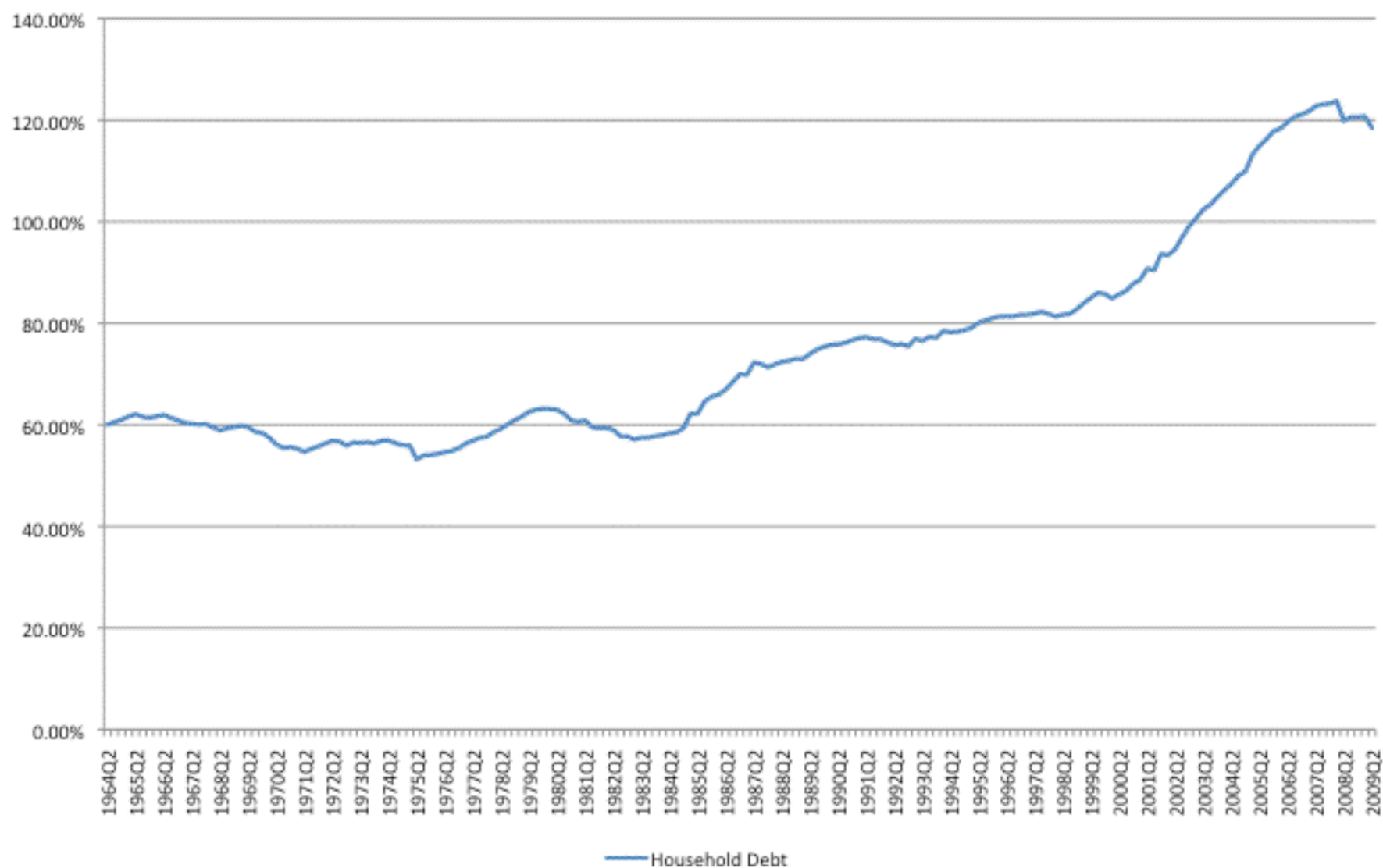
Transformation of Consumption and Household Finance

- Consumption boom and collapse
- Role of debt
 - > Contrast at ~1984
- Institutional changes
 - > Credit cards
 - > HELOC and “cash-out” refinancing
- Mortgage Equity Withdrawal (MEW)
- Consumption finance far from “passive”

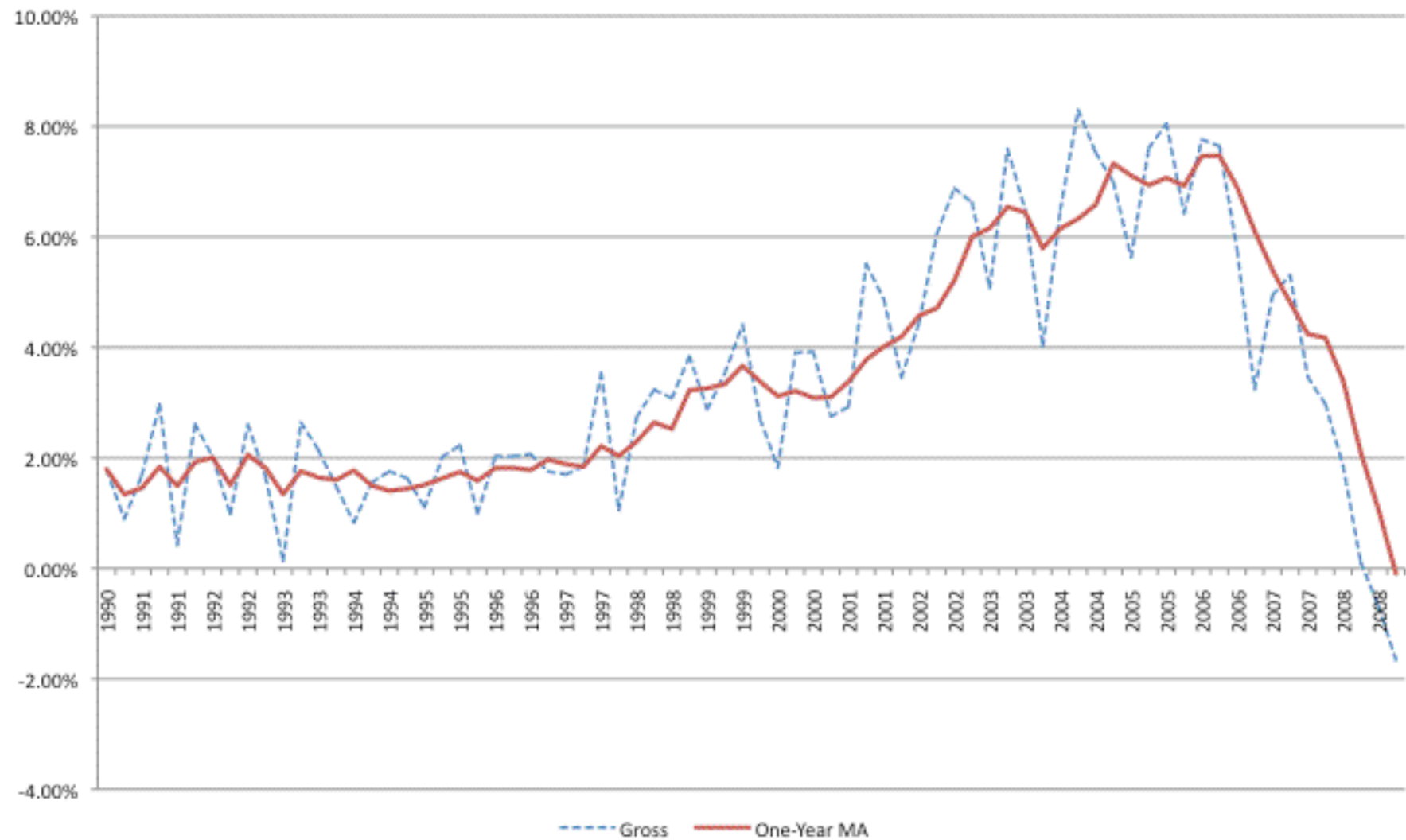
Personal Outlays (Share of Disposable Income)



Household Debt (Share of Disposable Income)



Mortgage Equity Withdrawal (Share of GDP)



Minsky and the Consumption Boom / Bust: Part 1

- Finance drives the cycle
 - > Boom required finance (inequality)
 - > Turning point (Minsky moment?) tied to financial crisis
 - > 25-year (!) dynamic, not “typical” macro cycle (note radical Keynesian perspective)
- Dynamic borrowers' risk:
 - > Social norms and conventions
 - > Rising financial fragility

Minsky and the Consumption Boom / Bust: Part 2

- Lenders' risk dynamic (Curry quote)
 - > “Success breeds a disregard of the possibility of failure” (237)
- Liability structure:
Hedge → Speculative → Ponzi
 - > Housing finance: Option ARMs, Teaser rates
 - > “Ponzi” bets on asset prices: cash out to service debt with expectation of refinance

In Their Own Words ...

- Boykin Curry, managing director of Eagle Capital: "For 20 years, the DNA of nearly every financial institution had morphed dangerously. Each time someone at the table pressed for more leverage and more risk, the next few years proved them 'right.' These people were emboldened, they were promoted and they gained control of ever more capital. Meanwhile, anyone in power who hesitated, who argued for caution, was proved 'wrong.' The cautious types were increasingly intimidated, passed over for promotion. They lost their hold on capital. This happened every day in almost every financial institution over and over, until we ended up with a very specific kind of person running things."

➤ Quoted in Farid Sakaria column "There is a Silver Lining," Newsweek, October 12, 2008, emphasis added

Minsky and the Consumption Boom / Bust: Part 3

- “Two-price” model of residential I
 - Direct application of investment theory
 - Significance of housing construction in cycle dynamics
- Rising leverage and fragility
 - “Debt paradox” controversy, but results here are clear
 - Financial innovation
- Stress test metaphor

Right Insights, Once Again

- Minsky's "passive" conception of consumption understandable, ultimately incorrect
- But a remarkably good framework for understanding recent events
- Historical specificity: cycle details vs. family resemblance
 - > Timing difficult
 - > Problem of mainstream appreciation