

HFCs: Future of Macroeconomics! (If ...)

**Christopher Carroll
Johns Hopkins University**

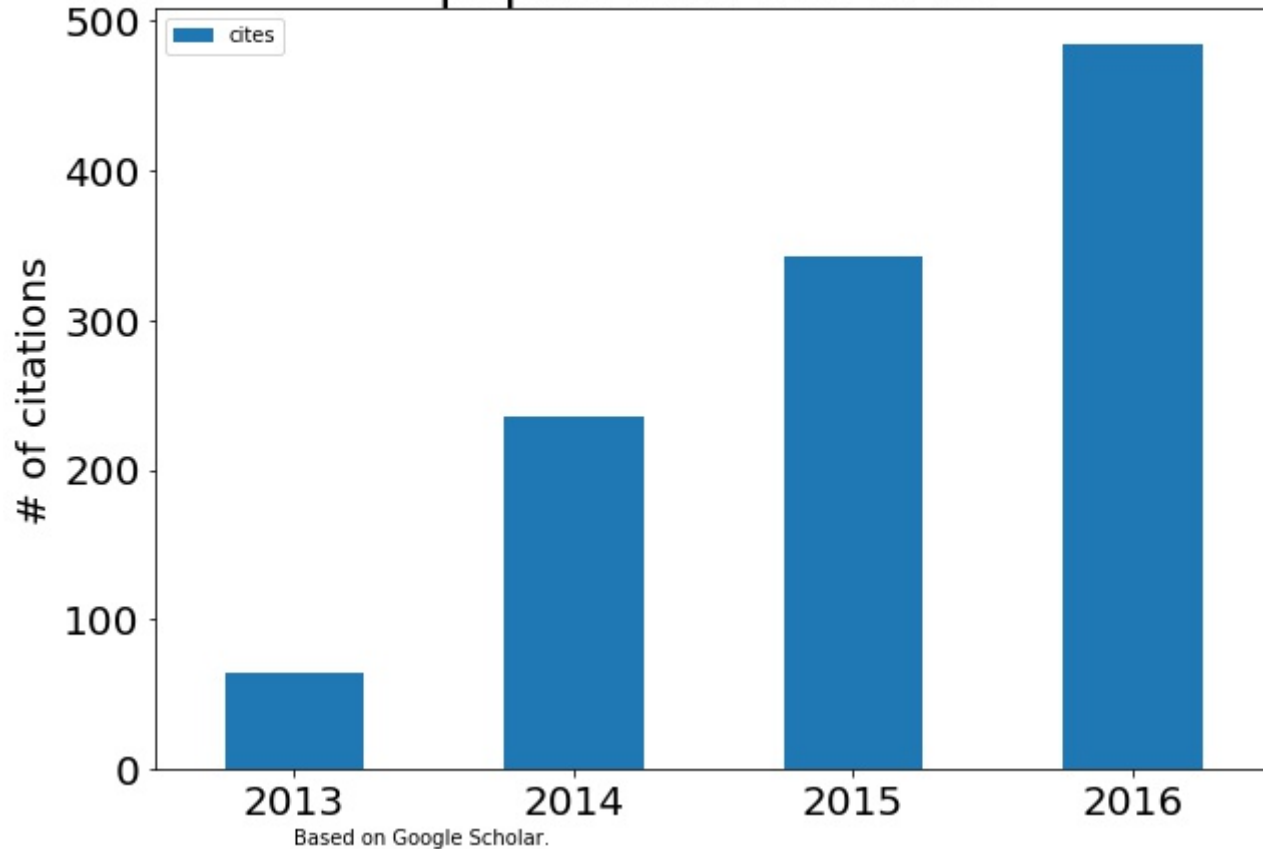
**6th Conference On
Household Finance and Consumption
ECB, Dublin, December 2019**

Central Banks:

- 0.0001 percent chance of avoiding another Great Recession?
- Excellent use of taxpayer money!

HFCS: Doing Great!

Total number of citations of papers that use HFCS



Much (Most?) of Increase is from Macro

"Better Data Makes Better Theory"

"Macroeconomic Data?"

No Such Thing

For a particular country we might have:

- **One Great Depression**
- **One Great Inflation**
- **One Great Moderation**
- **One Great Recession**

"The past is another country - they do things differently there"

Empirical Macroeconomics Example

["How Large Are Housing and Financial Wealth Effects?"]

- The kind of thing Central Banks really want to know
- Fed commissioned me to estimate this:
 - For an academic consultants' meeting Dec 2004
 - Shiller was my discussant: (He said "bubble is starting!")

Through 2012:

- Carroll, et al (<https://www.jstor.org/stable/20870039>) estimate as about 0.1
- Many others with similar (or larger) effects

Since 2012 (including paper presented here yesterday):

- Micro literature with totally credible identification
- Answer: Maybe 0.02

Macro literature error?

1. The Usual:

A. Everything is endogenous

B. Very little data

2. Micro literature with credible identification:

- House prices go up when credit is loose
- When house prices go up, relaxes collateral constraint
- Small fraction of people borrows
 - Home Equity Loans
 - Renovation

"Structural" Macroeconomics? Two Choices:

1. Retain Discipline

- Terrible Fit to Data (cf. Eichenbaum)

1. Relax Discipline

- Frictions
- Habits
- Ambiguity Aversion
- Adjustment Costs
- Inattention
- 'Marginal Utility Shocks'
- 'Risk Aversion' Shocks
- ...
 - $7 \times 6 \times 5 \times 4 \times 3 \times 2$?
 - More "plausible" Models Than \exists Datapoints

Micro Data: *More and Better* Data Makes Better Theory

"With So Much Data, We Don't Need Theory!"?

- No
- "More is Different":
 - Vast data both **REQUIRES** and **ENABLES** better theory
 - Only way to distill millions of datapoints
 - Nonsense theories ("MP works via IES") now disprovable

Different Countries \approx Natural Experiments?

Institutions/behaviors: A lot of history dependence

Housing Finance

1. 30 Year Fixed Mortgages Dominant in US: Why?
2. History: Great Depression \Rightarrow Fannie Mae
 - Maximum feasible relief: Convert 5 to 30 year mortgages
3. "Financial Innovation" of ARMs?
 - Paul Volcker said it best
 - Always had a whiff of fraud in the US

Useful Cross-Country Diffs

- "Exogenous" cross-country diffs
 - Institutional differences
 - housing market structure (e.g., fixed vs floating)
 - financial market rules/structure (Alessandra)
 - labor market rules
 - social insurance systems
 - Demographics (esp immigration)
 - History
 - German hyperinflation
 - Exposure to communism

- **"Predetermined" cross-country diffs**
 - **The structure/distribution of HH balance sheets**
 - **liquid assets:**
 - **bank accounts**
 - **stocks/bonds/financial markets**
 - **housing wealth**
 - **pension wealth**
 - **Fiscal position (national debt, e.g.)**

Kinds of Questions HFCS 1.0 Can (Help) Resolve

- Common MP shock has different effects across countries
 - Depending on institutions, balance sheets, ...
 - As we saw yesterday
- Constant MP but different country-specific shocks
 - Minimum Wage/"Incomes" Policies
 - Fiscal shocks multipliers
- Leaving cyclical policies aside, consequences of institutions
 - Debt, asset market frictions (Alessandra; Bover)

Remaining Class of Problem

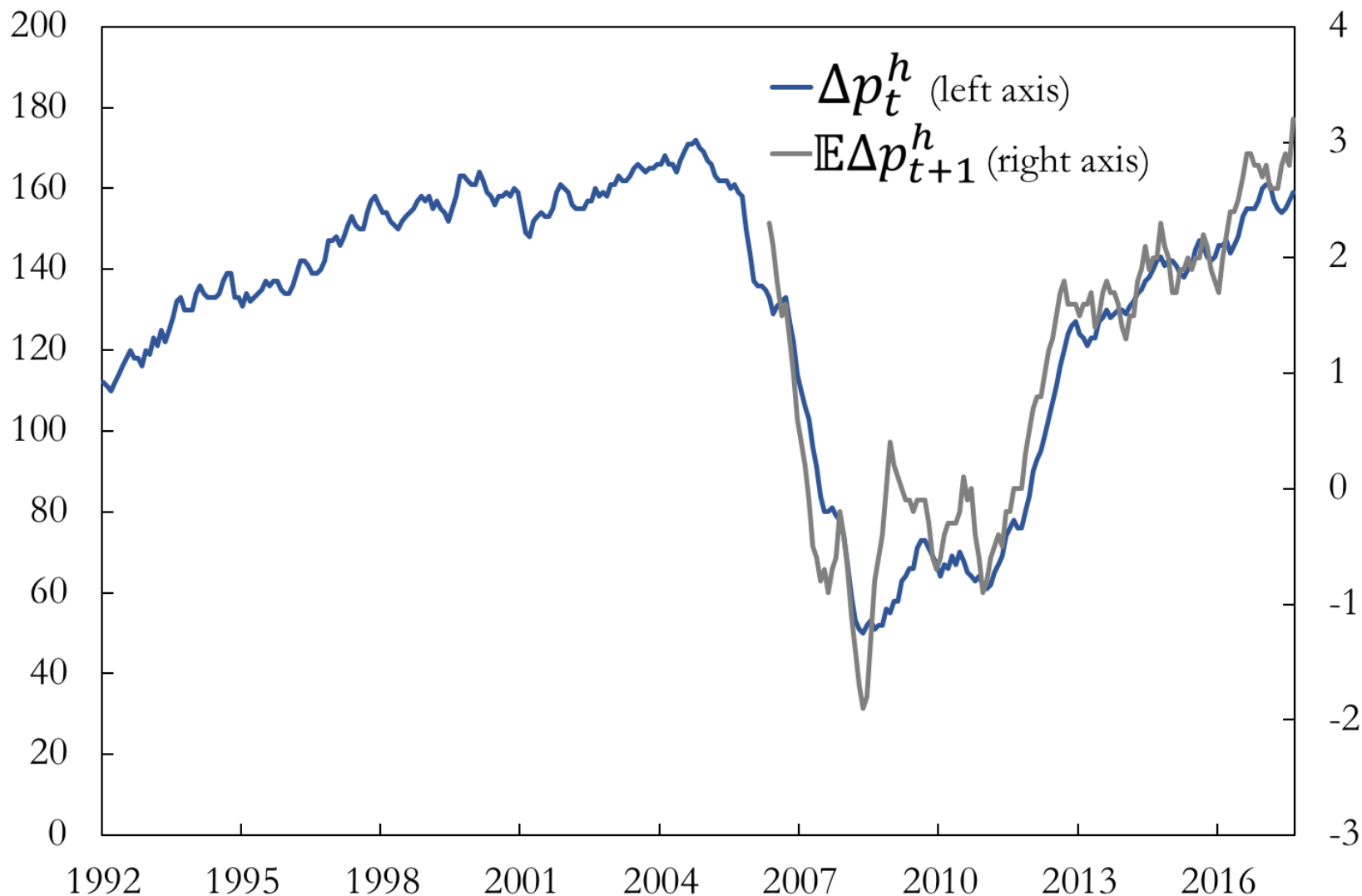
- But some phenomena *are* unique to macro
 - Correlated (and mutually causal) expectations
 - Based on mutually shared experiences

If ... HFCS Agenda for Macro?

1. Expectations, Beliefs, Narratives ...

House Prices: Beliefs About Past \Rightarrow \mathbb{E} About Future

Michigan Survey - House Price Expectations



Euro Version of NYFed Survey of Consumers?

No: Do Even Better!

At a Minimum: Richer Background of Respondents

1. Start with a good sampling frame

- Like HFCS!
- If not HFCS, Credit Registry or National Registry or ...
- *Whose House Price Beliefs?*
 - Yesterday's paper on German housing market shows importance
- Don't just ask what; ask "why"
 - Collect Narratives

A Long Time Ago, in a Galaxy Far Far Away ...

... my first job was at the Federal Reserve, starting in 1990

Specifically, I was in charge of C :

- Suite off the shelf models were way underpredicting C
- Only indicators that matched?
 - Big decline in expectations component of consumer confidence
 - Especially Unemployment Expectations

What was going on?

Narratives

1990-91 Recession in US:

- ASSA Session (1992):
- Blanchard:
 - "Large Autonomous Negative Innovation in Consumption Equation in VAR"
- Hall: "Consumers Freaked Out (for some reason)"
- Prescott: "Basel II regulatory agreement reached"
 - "consumers anticipated future negative productivity shock"

Narratives

Shiller (2009, 2019):

- Oil Prices Quadruple after Iraq Invaded Kuwait
- Last 2 times that had happened:
 - 1973 - followed by worst recession since WWII
 - 1979 - followed by *even worse* double-dip

Surveys: Ask Not Just "What" But "Why" (Narratives)

- 1. "My Facebook friend's house price collapsed"**
- 2. "I remember the last time there was an oil price shock"**
- 3. "Cable News shows keep talking about a recession"**
- 4. "Why pay attention to milk and bread prices?"**
 - I buy them often enough that I can remember the last price**
 - My friends pay attention to these prices and we can gossip**

Hypotheticals

1. Homeowners:

- If Interest Rates Were Lower:
 - Would you refinance?
 - Would you upgrade?
 - Would you buy an "investment property"?

2. 60 year olds:

- "If stock market fell by 20 percent would you delay retirement?"

HFCS 2.0: Add Rich Expectations/Beliefs/Narratives/Hypotheticals

Potential Outcomes:

1. Which Models of Expectations Work Well In Which Circs?
2. Causality:
 - From events to expectations
 - From expectations to events

Prospects

Why Can't A Survey Win the Nobel Prize?

- Maybe it can -- "Medcins sans Frontiers" Won Peace Prize ...

References

Resources

1. [HFCS Core Questionnaire](https://www.ecb.europa.eu/home/pdf/research/hfcn/HFCS_Core_and_derived_variables_8d19475a7edb8ff7de6d99a885e527ec)
(https://www.ecb.europa.eu/home/pdf/research/hfcn/HFCS_Core_and_derived_variables_8d19475a7edb8ff7de6d99a885e527ec)
2. [Bibliography of the HFCS](https://www.ecb.europa.eu/home/pdf/research/hfcn/Bibliography_of_the_HFCS.pdf)
(https://www.ecb.europa.eu/home/pdf/research/hfcn/Bibliography_of_the_HFCS.pdf)
3. (<https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp100.pdf>)
4. (<https://www.ecb.europa.eu/pub/pdf/scpsps/ecbsp2.en.pdf>)
5. [HFCS webpage](https://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_hfcn.en.html) (https://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_hfcn.en.html)
6. [Report about the Research Activities of the HFCN since the Release of the Wave 2 Data](https://www.ecb.europa.eu/home/pdf/research/hfcn/201903_Research_Report_HFCS_4f69e44965732d62284015b274bab529)
(https://www.ecb.europa.eu/home/pdf/research/hfcn/201903_Research_Report_HFCS_4f69e44965732d62284015b274bab529)