Global Financial Cycle

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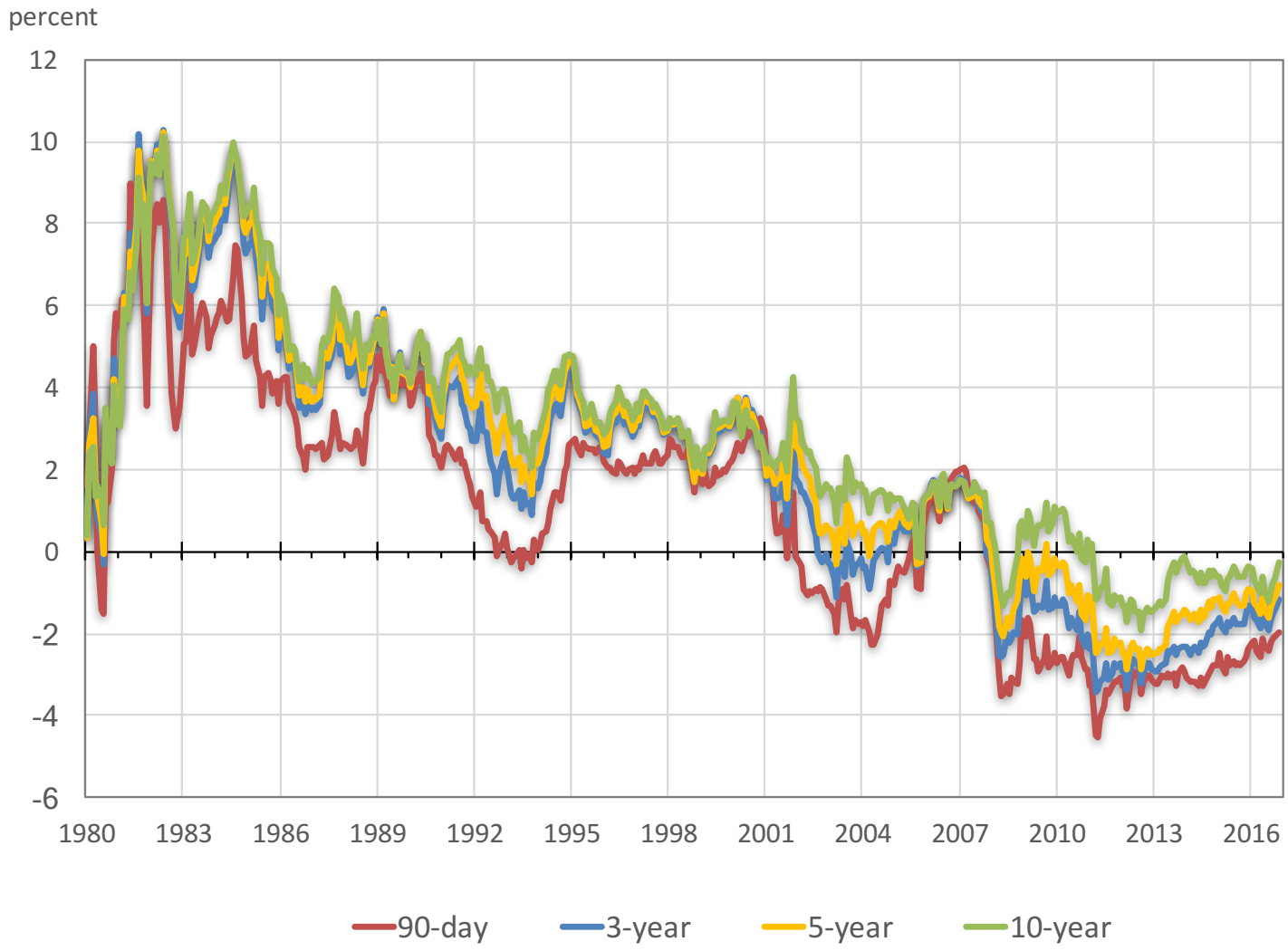
Global Financial Cycle

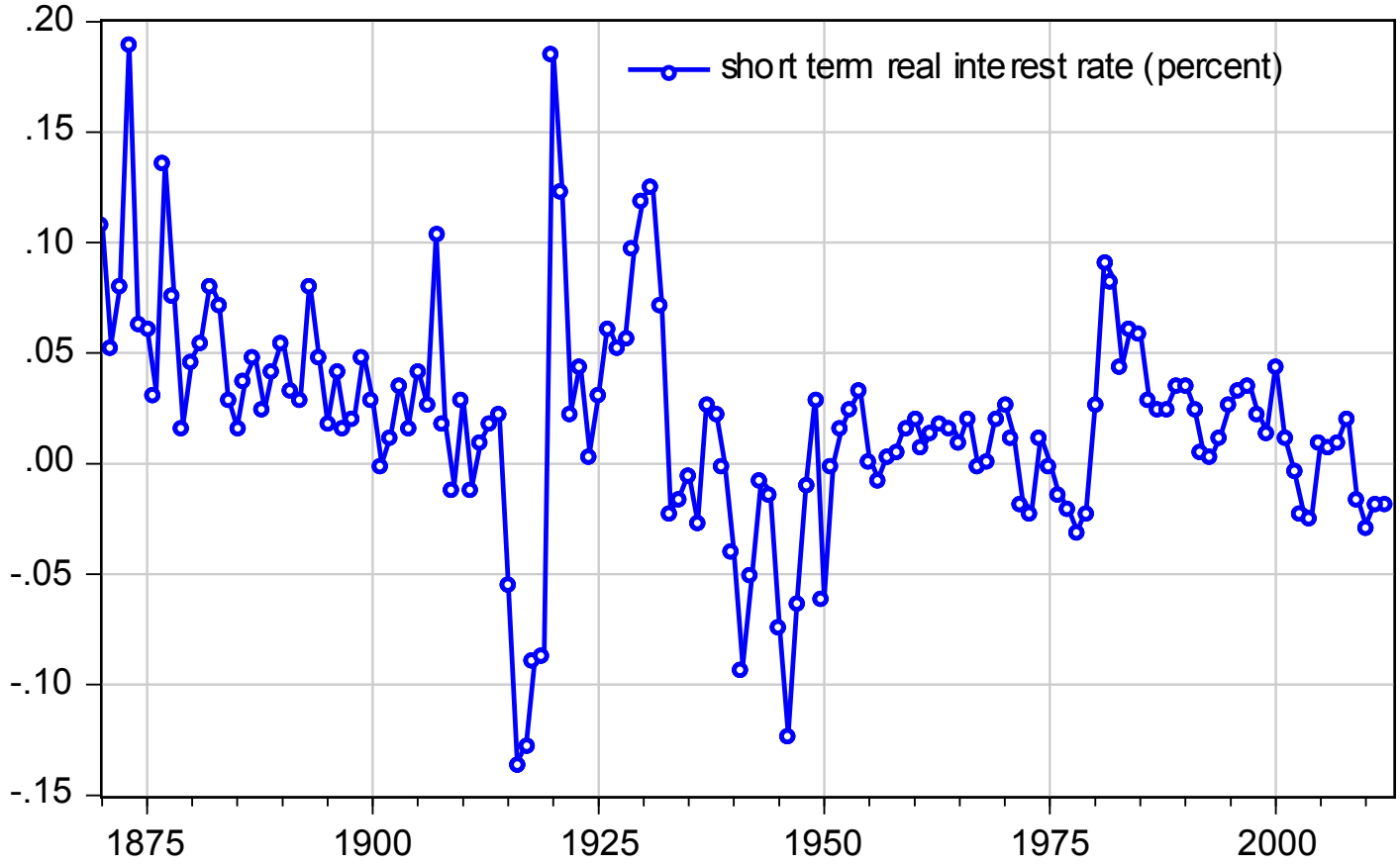
- Fluctuations in financial activity (risk taking, credit creation, asset prices, capital flows, spreads, leverage) on a global scale (Rey (2013)).
- Particularly interesting to link the Global Financial Cycle to issues of financial stability (waves of crises) and to constraints it puts on monetary policy.
- Dilemma versus trilemma: monetary conditions (including spreads, price of risk) are affected by the centre country(ies) even under floating rates (see e.g. my Mundell Fleming Lecture).
- Important constraint for most advanced economies: low real rates and zero lower bound (see Global Real Rates: A Secular Approach (Gourinchas and Rey, 2016)).

U.S. Real Rates



Ex-ante real yields on U.S. Treasury Securities constructed using median expected price changes from the University of Michigan's Survey of Consumers. Source: FRED.

‘Historical’ U.S. Real Rates, 1871-2011



The figure reports the annualized ex-post real 3-month interest rate for the U.S. since 1871.

Source: Jordà et al (2016).

Global Real Rates: A Secular Approach

Empirical approach using the world budget constraint and historical data.

- Law of accumulation of wealth for the world (closed economy):

$$\bar{W}_{t+1} = \bar{R}_{t+1}(\bar{W}_t - C_t)$$

- Log-linearize around the steady-state consumption-wealth ratio and derive the world's intertemporal budget constraint:

$$\ln C_t/\bar{W}_t \backsimeq \mathbb{E}_t \sum_{s=1}^{\infty} \rho_w^s \left(\bar{r}_{t+s}^w - \Delta \ln C_{t+s}\right)$$

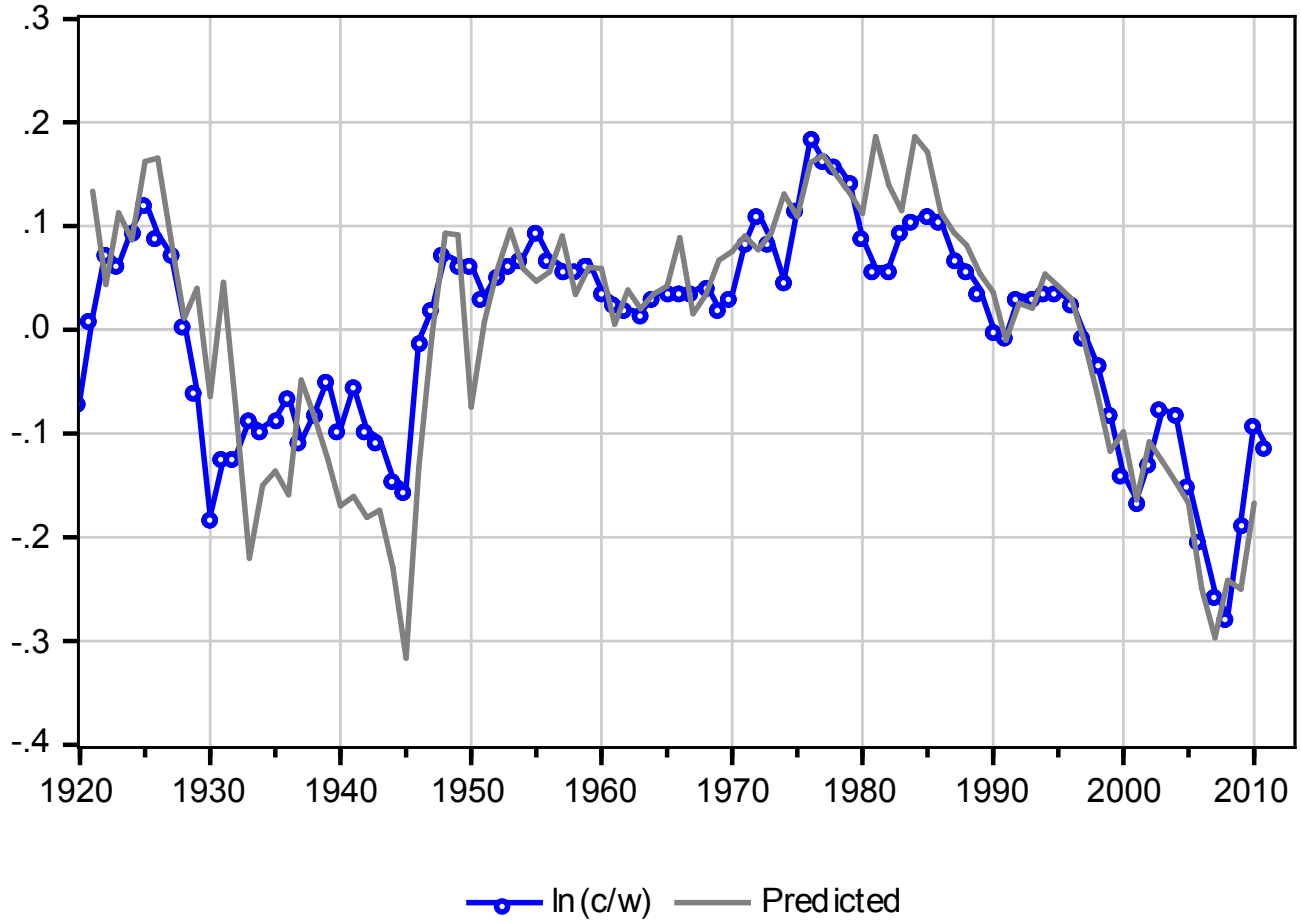
- Present value relation:

$$\begin{aligned} \ln C_t/W_t \quad &\backsimeq \quad \mathbb{E}_t \textstyle\sum_s \rho_w^s r_{t+s}^f \quad + \nu \mathbb{E}_t \textstyle\sum_s \rho_w^s rp_{t+s} \quad - \mathbb{E}_t \textstyle\sum_s \rho_w^s \boldsymbol{\Delta} \ln \mathbf{C_{t+s}} \quad + \varepsilon_t \\ &\equiv \quad cw_t^f \qquad\qquad + cw_t^{rp} \qquad\qquad + \mathbf{cw_t^c} \qquad\qquad + \varepsilon_t \end{aligned}$$

Global Consumption/Wealth Ratio: Hansen and Summers

The figure decomposes the fluctuations in $\ln(C/W)$ around its mean into a risk-free component (cw^f), an excess return component (cw^{rp}) and a consumption growth component ($\mathbf{cw^c}$).

Decomposing the Global Consumption/Wealth Ratio



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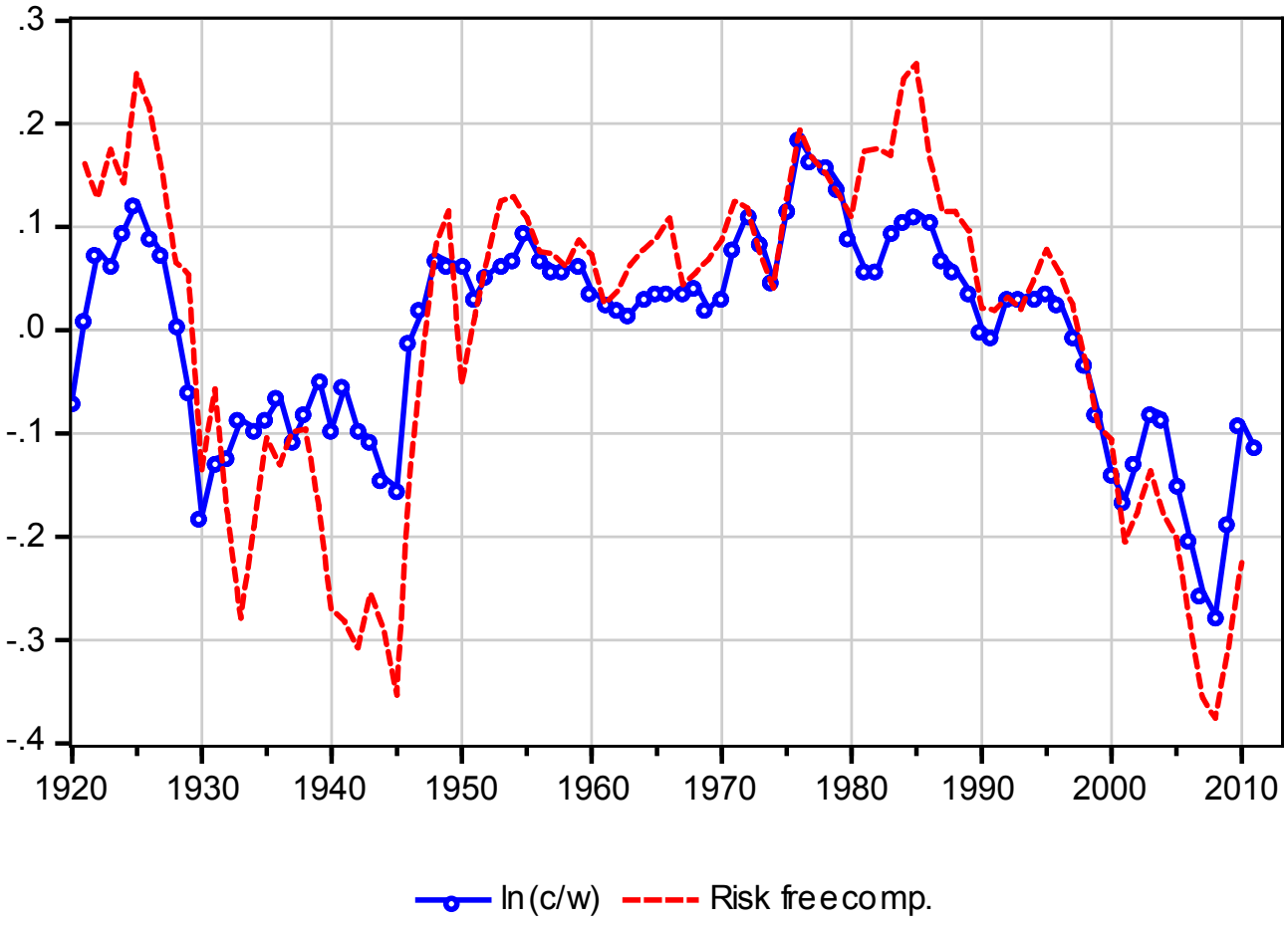

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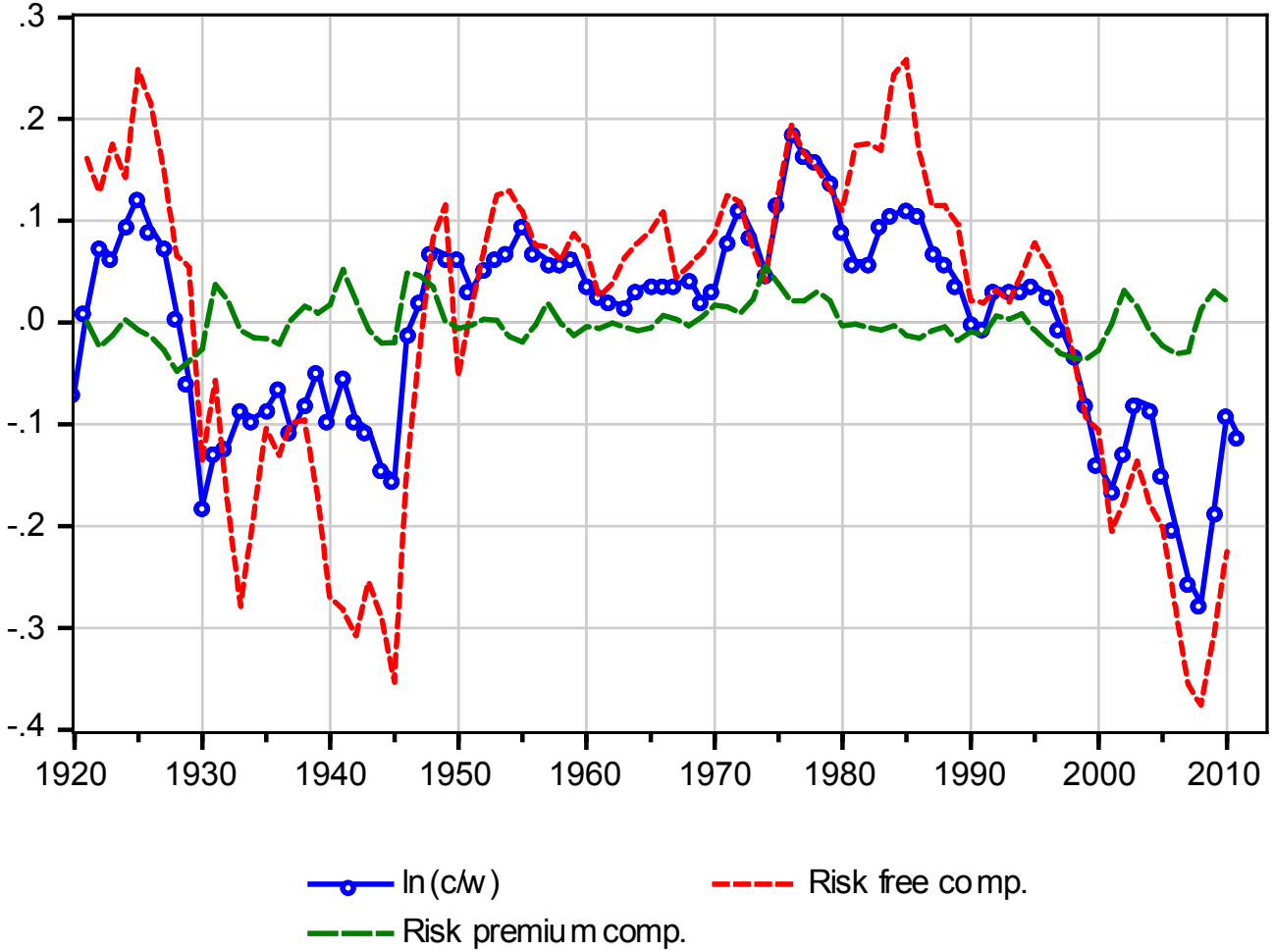

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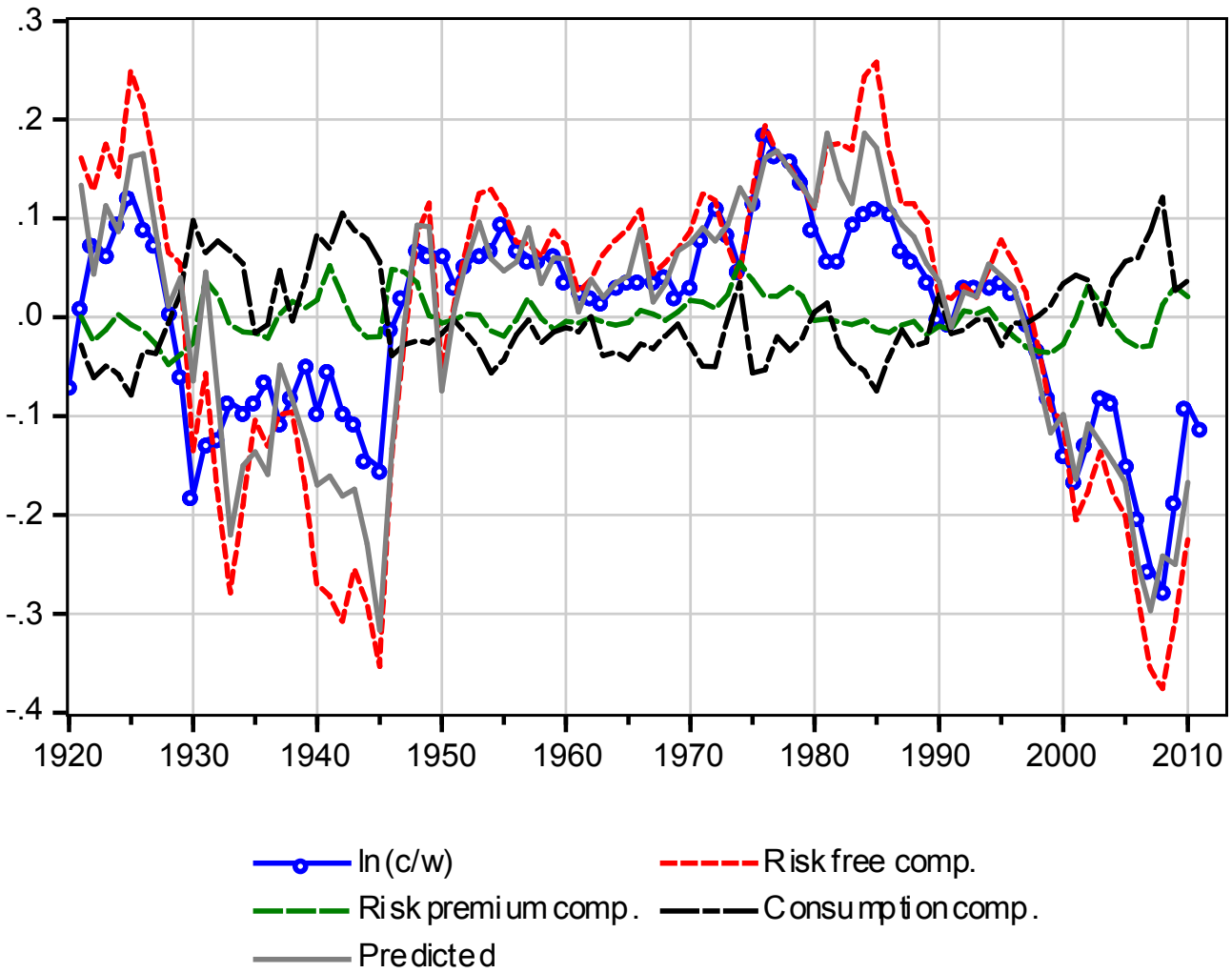

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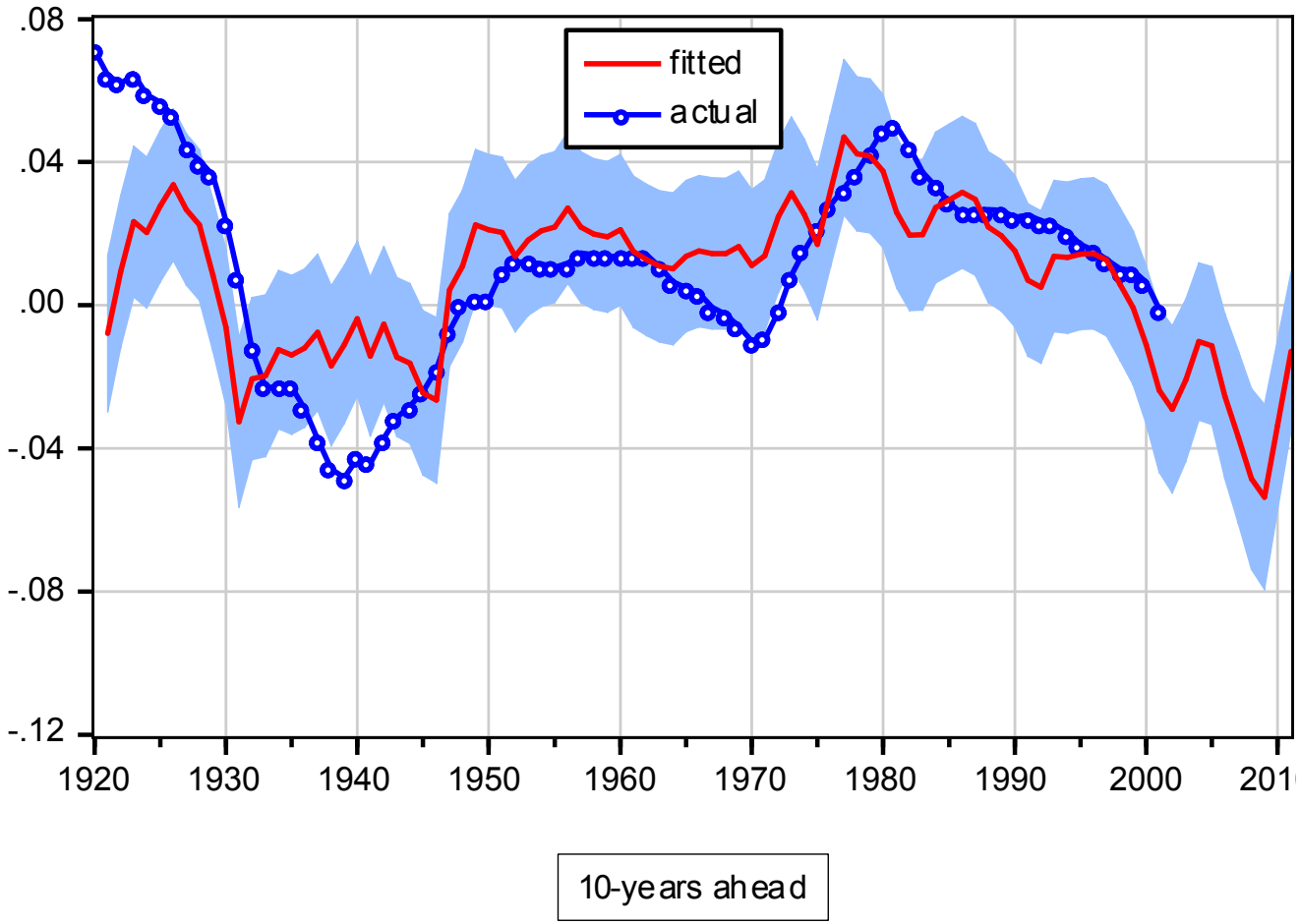
Interpretation

- Most of the action is in the joint dynamics of the consumption wealth ratio and the risk free rate.

- Plausible interpretation:
  - 'Irrational exuberance' in asset prices ('Roaring 20s' and the 'Exuberant 1990-2000s') leads to fast growing financial wealth and fast declining consumption-wealth ratios.
  - Large financial crises (in 1929 and in 2008) lead to deleveraging (increased savings and low consumption) for an extended time (low consumption wealth ratios) and to low real rates.
  - Therefore low consumption wealth ratios tend to be associated with low real rate components.

- This is consistent with debt overhang effects (Reinhart and Rogoff (2014)) and a global financial boom/bust cycle (Miranda-Agrippino & Rey (2015)).

Predicting Global Real Risk-free Rates



The figure forecasts the 10-year average future short risk-free rate using $\ln(C/W)$. Graph includes 2 standard deviation bands.

2011-2021 forecast: -1.3%

Conclusions

- We use a very general almost a-theoretical framework to understand determinants of long run real rates.
- Empirical evidence consistent with global financial boom/bust cycle.
- Euphoria pre-crisis leads to rapid increase in wealth (1920s, 1990s-2000s). This is followed by deleveraging post crisis (1929, 2008) and increased demand for 'safe' assets.
- Hence low consumption-wealth ratios precede crises and are associated with lower future real rates.
- Predictive power: How long will the real rates stay low? Into next decade! Major constraint on monetary policy.
- Research agenda for the Global Financial Cycle: source, propagation, amplification mechanisms, endogenous risk build ups.
- My view: Models with heterogenous intermediaries and moral hazard (risk-taking not properly priced) are what we need.

(Tentative) Policy Conclusions

Ex post:

- Policy dealing with legacy debt on households, banks, government balance sheets (e.g restructuring).
- Fiscal policy including redistribution policies (from low marginal propensity to consume to high marginal propensity to consume individuals).

Ex ante:

- Regulatory policies
- Micro and macro prudential policies, capital flow management policies
- Review policies subsidising debt