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)).
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.
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:

\[ \ln \frac{C_t}{\bar{W}_t} \approx E_t \sum_{s=1}^{\infty} \rho^s \left( \bar{r}_w^f + s - \Delta \ln C_{t+s} \right) \]

- Present value relation:

\[ \ln \frac{C_t}{W_t} \approx E_t \sum_s \rho^s r^f_{t+s} + \nu E_t \sum_s \rho^s r^p_{t+s} - E_t \sum_s \rho^s \Delta \ln C_{t+s} + \varepsilon_t \]

\[ \equiv c_w^f + c_w^{rp} + c_w^c + \varepsilon_t \]
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 ($cw^c$).
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Decomposing the Global Consumption/Wealth Ratio

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The figure decomposes \( \ln(C/W) \) into a risk-free component \( \text{cw}^f \), an excess return component \( \text{cw}^{rp} \) and a consumption growth component \( \text{cw}^c \).
Interpretation

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

- Plausible interpretation:
  - 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)).
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.


- 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