The Future of Savings

Setting the Stage

Hélène Rey, based on joint work with Pierre-Olivier Gourinchas.

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This work does not reflect in any way the views of the Haut Conseil de Stabilité Financière
Questions:

- Why are global real interest rates so low? (Secular Stagnation [Hansen (1939), Summers (2013)], Savings Glut [Bernanke (2005)])

- For how long are they going to stay low?

- We use a very simple empirical framework and historical data to get at these questions
Global Interest Rates (10-year nominal yields)

The figure reports the annualized realized real 3-month interest rate for the U.S. since 1870.
An Empirical Framework to understand $r$

- Look at the ratio of consumption ($C$) to wealth ($W$) over a long period of time.

- Accounting identity (budget constraint) tells us that ratio $C/W$ is below average when:
  - Consumption is expected to grow faster in the future, or
  - Wealth is expected to grow more slowly in the future: low future return on wealth

- The return on wealth is the risk-free rate $r^f$ plus an excess return $r_p$.

- Formally:

$$\ln(C_t/W_t) = \sum_{s=0}^{\infty} \rho^s r^f_{t+s} + \sum_{s=0}^{\infty} \rho^s r_p^w_{t+s} - \sum_{s=0}^{\infty} \rho^s g^c_{t+s}$$

$$= c_w^f r^f_t + c_w^r p_t + c_w^c$$
The figure reports the ratio of aggregate annual private consumption expenditures to total private wealth (land, housing, financial assets) for the U.S., U.K., Germany and France. Source: Jordà et al (2016), Piketty & Zucman (2014).
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  $$\ln\left(\frac{C_t}{W_t}\right) = \sum_{s=0}^{\infty} \rho^s r_{t+s}^{f} + \sum_{s=0}^{\infty} \rho^s r_{t+s}^{p} - \sum_{s=0}^{\infty} \rho^s g_{t+s}^C$$

  $$= cw_t^{rf} + cw_t^{rp} + cw_t^{c}$$
The figure decomposes the fluctuations in ln(\(C/W\)) around its mean into a risk-free component (\(cw^rf\)), 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 forecasts the 10-year average future short risk-free rate using $\ln(C/W)$. Graph includes 2 standard deviation bands.

**2011-2021 forecast:** $-2\%$
Low Real Rates: Why and How long?

- Empirical evidence favors global financial boom/bust cycle

- Deleveraging post crisis: increased demand for ‘safe’ assets

- Little evidence for technological slowdown or demography factors

- How long? Into next decade! (unless unexpected shock such as a big change in macroeconomic policy)