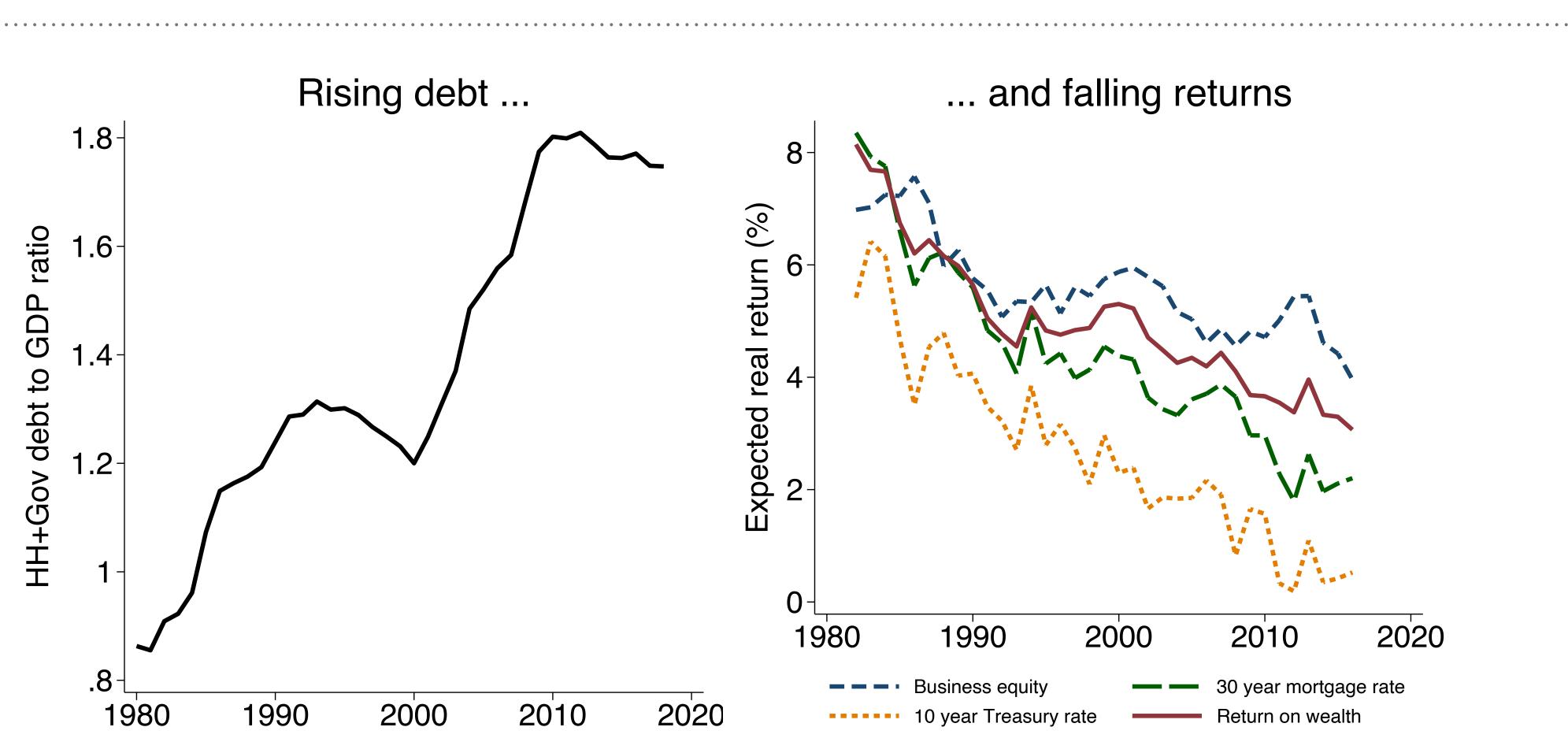
INDEBTED DEMAND AND IMPLICATIONS FOR MONETARY POLICY

Ludwig Straub

(based on work with Atif Mian and Amir Sufi)

RISING DEBT AND FALLING RETURNS



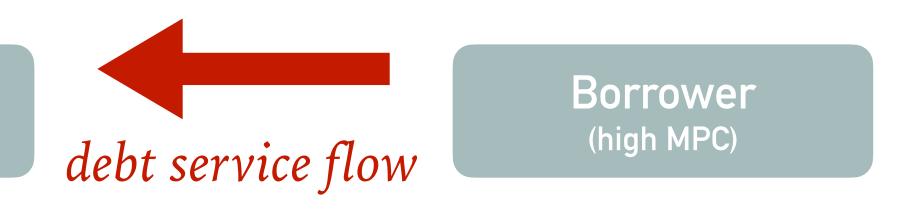
> Standard story goes from right plot to left: reduced interest rates increase debt levels.

TODAY: FROM HIGH DEBT LEVELS TO LOW INTEREST RATES

- Explore a complementary story, going the other way:
 - ► high levels of debt ...
 - cause high debt service payments ...
 - reducing aggregate demand if MPC of borrower > MPC of saver ...
 - pushing down r* !

Saver (low MPC)

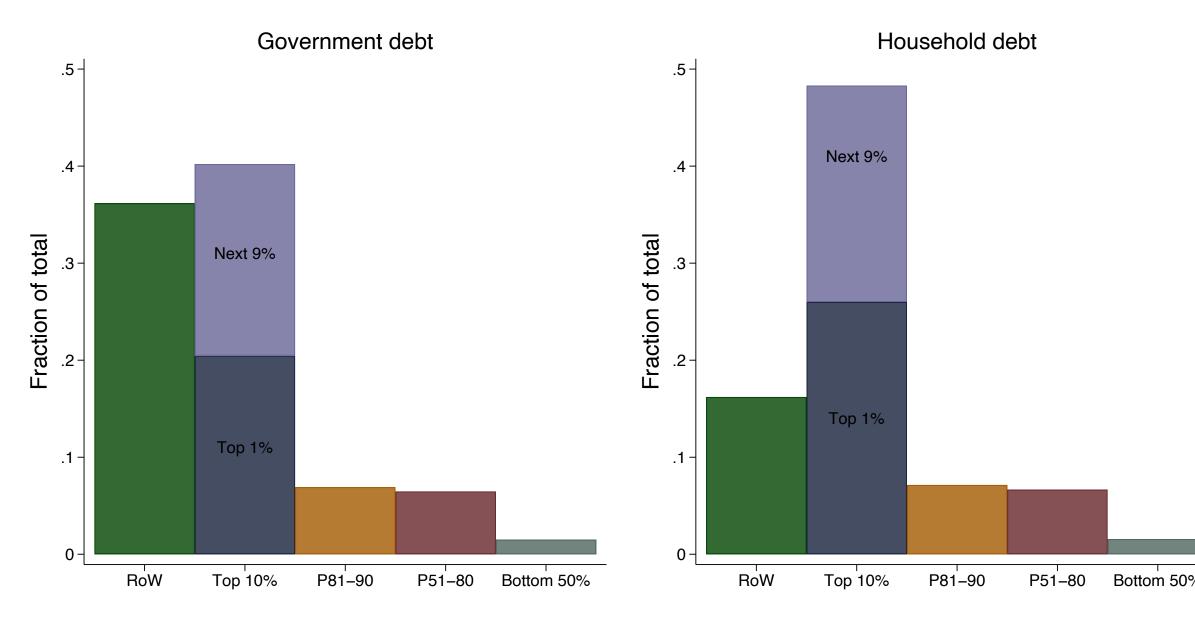
- \blacktriangleright In other words:



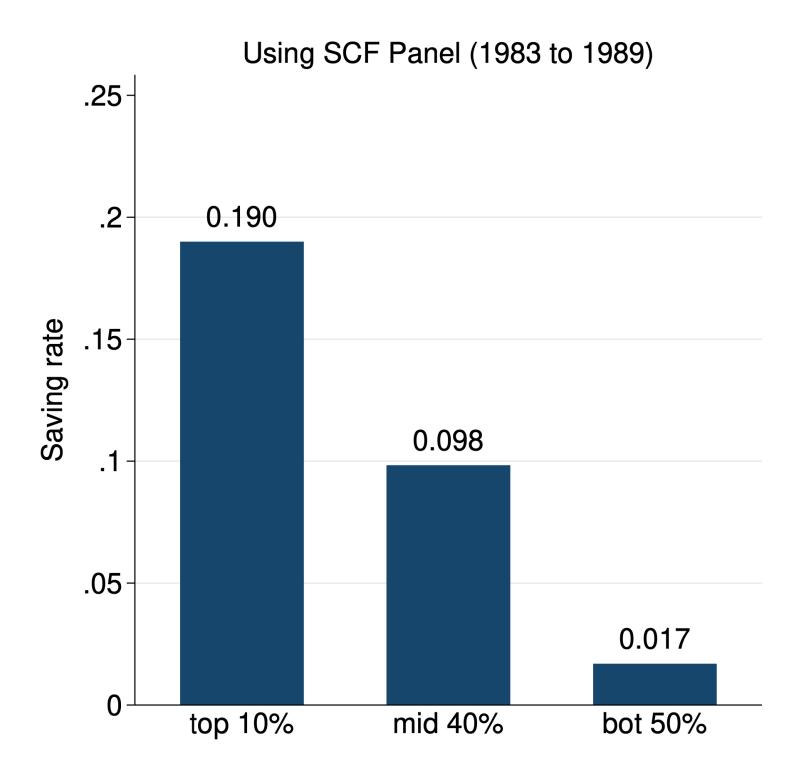
> When debt levels are high, monetary policy has a hard time normalizing rates!

DO SAVERS HAVE GREATER SAVING RATES?

► Identify savers as top 10% & foreigners, then compute their saving rates.



Mian Sufi Straub (2021): "Saving Glut of the Rich"



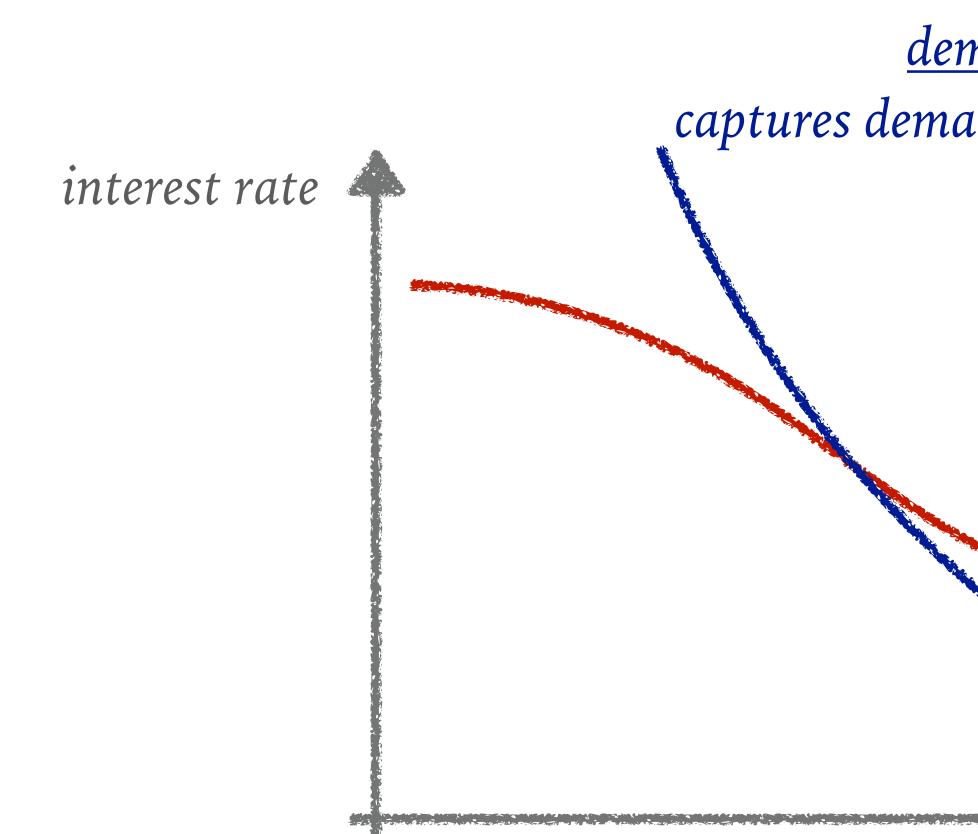
Mian Sufi Straub (2021): "What explains the decline in r*? ..."

THE INDEBTED DEMAND FRAMEWORK

- > Stylized model, matches the key features. Rich savers, poor borrowers.
- Main insight: Increased debt levels give rise to an increased resource flow from borrowers to savers, which reduces aggregate demand, and hence r*
- policy, redistribution
- Next: explain framework & implications graphically

Implications for recent trends in inequality and financial deregulation, monetary

THE INTEREST RATE – DEBT DIAGRAM



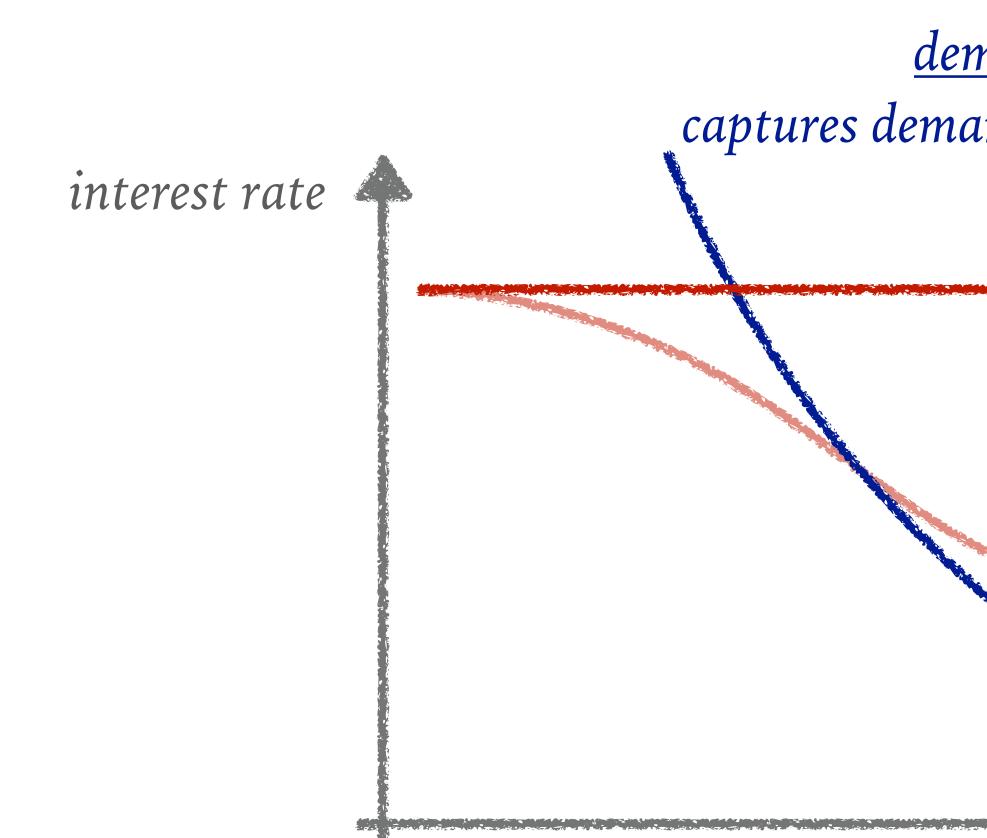
<u>demand condition:</u> captures demand for debt for any given r

> <u>supply condition:</u> greater debt levels imply greater redistribution from high to low MPC, hence lower r*

debt

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THE INTEREST RATE – DEBT DIAGRAM

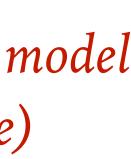


supply condition in standard model (without MPC difference)

demand condition: captures demand for debt for any given r

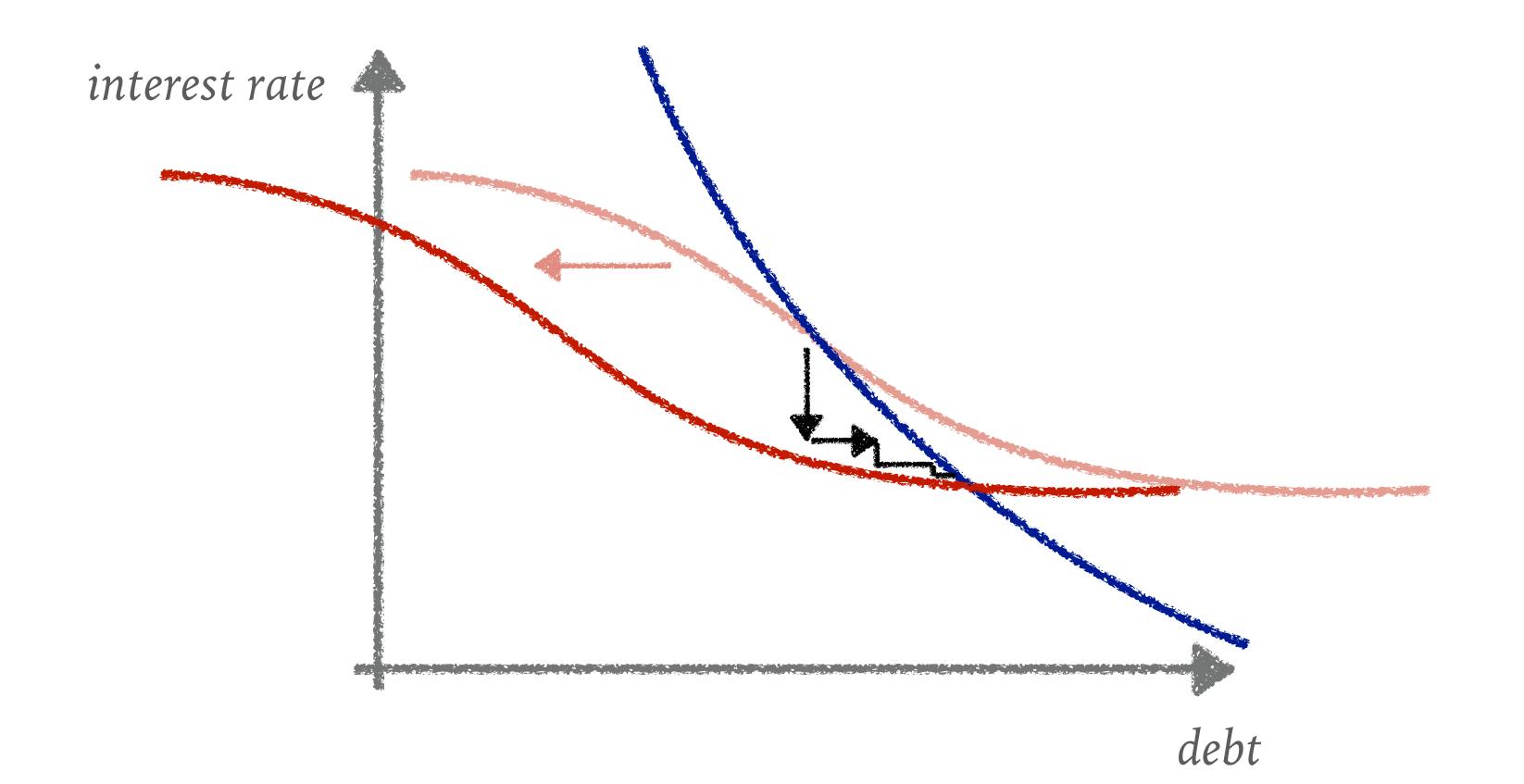
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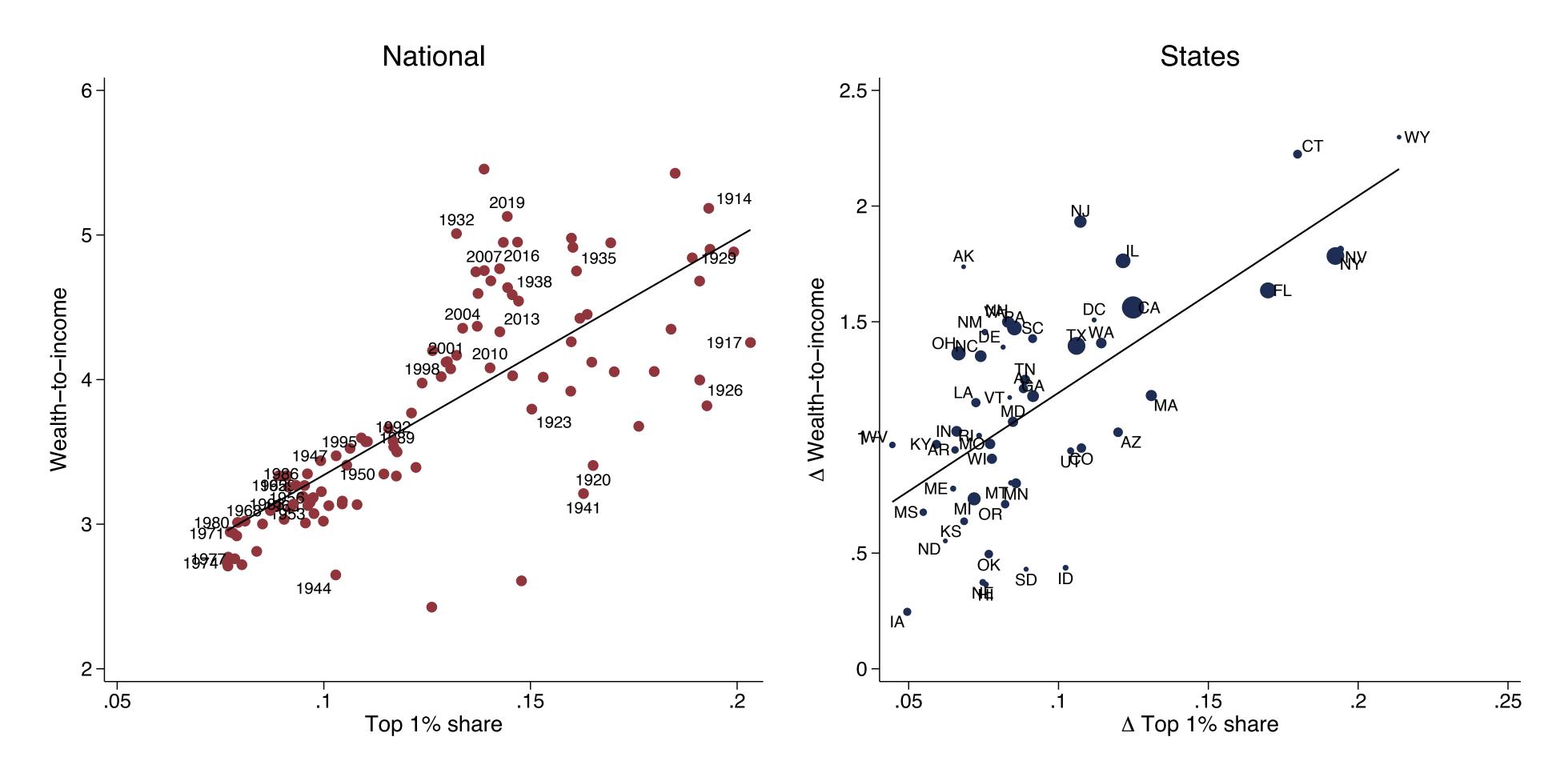
IMPLICATIONS FOR RISING INEQUALITY: FALLING R* AND RISING DEBT

- Rising inequality shifts resources from poor to rich
- \blacktriangleright All else equal reduces r^{*}, stimulates debt, which reduces r^{*} even more, etc...



CAN SEE DIRECT EVIDENCE OF THIS IN THE DATA

Left: Over time, national level. Right: Across U.S. states

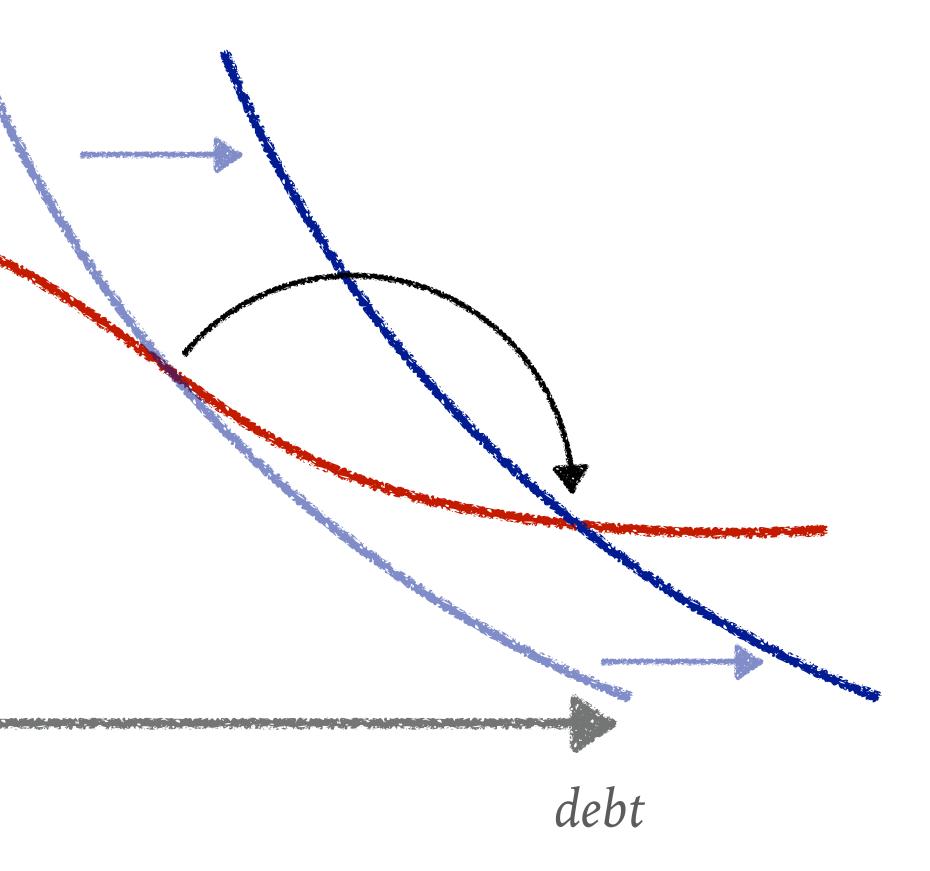


Mian Sufi Straub (2021): "Saving Glut of the Rich"

IMPLICATIONS FOR FINANCIAL DEREGULATION: BOOM & BUST

► Financial deregulation induces boom & bust episode

interest rate



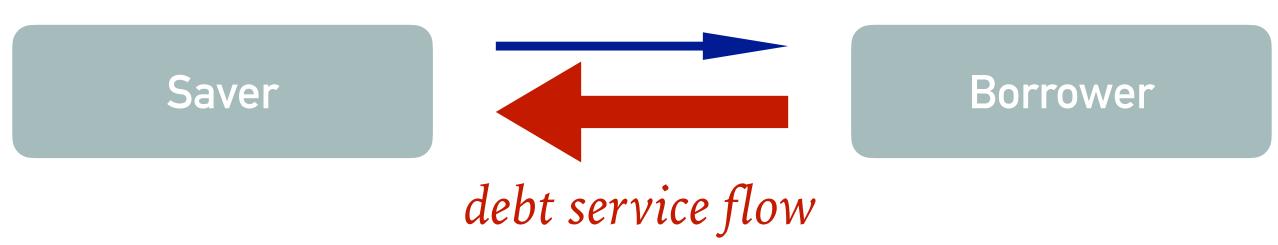
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IMPLICATIONS FOR FINANCIAL DEREGULATION: BOOM & BUST

- ► Financial deregulation induces boom & bust episode
- Boom phase: credit expands, demand increases, r* rises
 - flows go from saver to borrower



Bust phase: new credit stalls, debt service flows > new credit growth

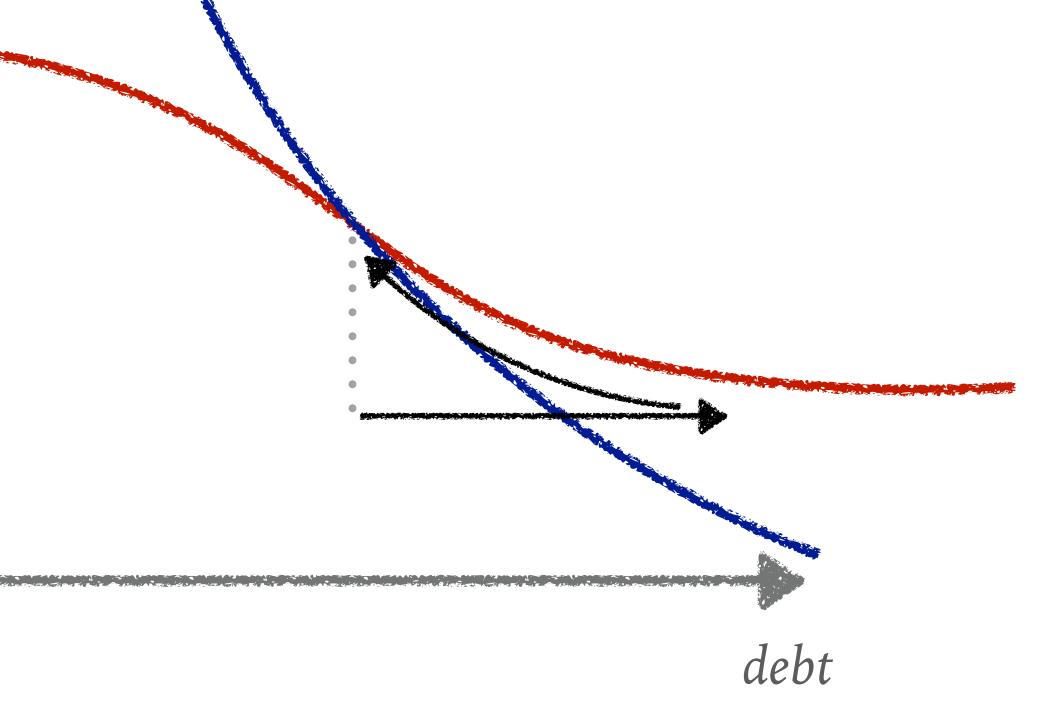


new credit growth

MONETARY POLICY AFFECTS R*

- Imagine a rate cut. Debt levels start rising, adding to demand.
- ► However, once stimulus should be faded out, debt burden reduces demand, r* lower.
- Monetary policy affects r*, no "natural rate hypothesis".

interest rate





ZLB AND DEBT TRAP

- ► Not so easy to resolve !

many ways to do this, ranging from redistribution to progressive taxes

► In currency area context, saver & borrower could be different countries redistribution could take the form of payments from "North" to "South"

► Once debt is sufficiently high, r* is so low that economy is at ZLB. "Debt trap".

> e.g. macroprudential policies to reduce credit creation will reduce demand

> Better policies resolve imbalances between savers and borrowers, i.e. inequality

TAKEAWAYS

 \blacktriangleright Indebted demand = idea that demand falls when debt service flows are high.

- ► Implies that ...
 - rising inequality causes low r* and high debt.
 - Financial deregulation causes boom-bust episodes.
 - \blacktriangleright monetary policy has effects on r^{*}, breaking natural rate hypothesis.