Discussion of "What next for r^*? A capital market equilibrium perspective" by Lukasz Rachel

Adrien Auclert, Stanford

Brookings Papers on Economic Activity Conference, September 2025

This paper

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- **Wanted:** r^*
  - the most important number for monetary policy-makers
    - gives the policy rate to set so that inflation is on target in the long-run
  - one of the most important number for fiscal policy-makers
    - determines long-run sustainability of given fiscal trajectory

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- **This paper**: historical estimates of r^* and its determinants+scenarios for the future
- Timely update of Rachel and Summers (2019 Brookings)
  - Recent increase in real long bond yields ("new normal"?)
  - Large rise in government debt, AI revolution, trade war, Ukraine war…

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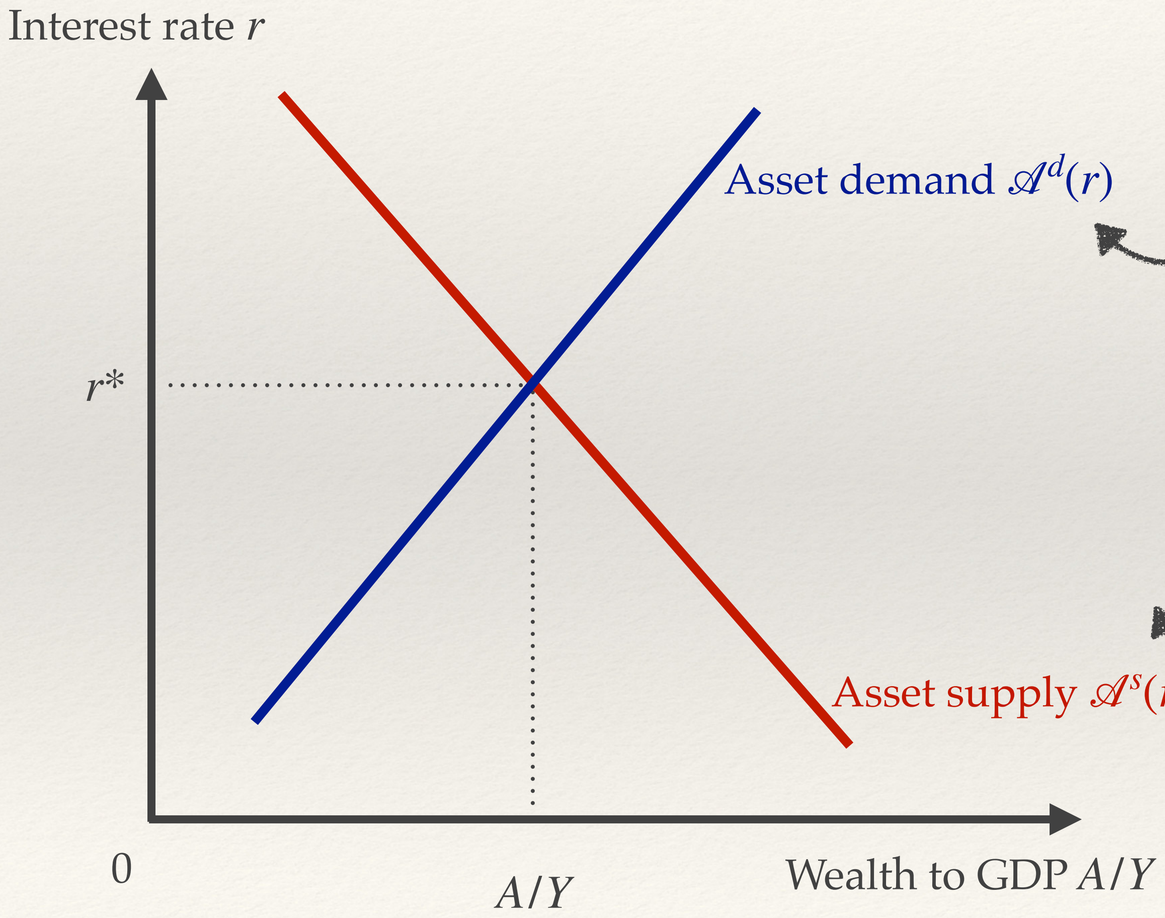
  - r^* is the rate that ensures that asset supply = asset demand
  - So, study mapping structural forces → asset supply and demand → r^*
- Complementary to "the race between asset supply and asset demand" (Jackson Hole paper with Malmberg, Rognlie and Straub, AMRS)
  - Despite very different approaches, for the most part, our papers agree !
  - This discussion: highlight key points of agreement (and some disagreement)

Determinants of long-run r^*



Amount of wealth households accumulate in the long-run given market r, relative to GDP

Value of assets issued by firms and government given market r, relative to GDP

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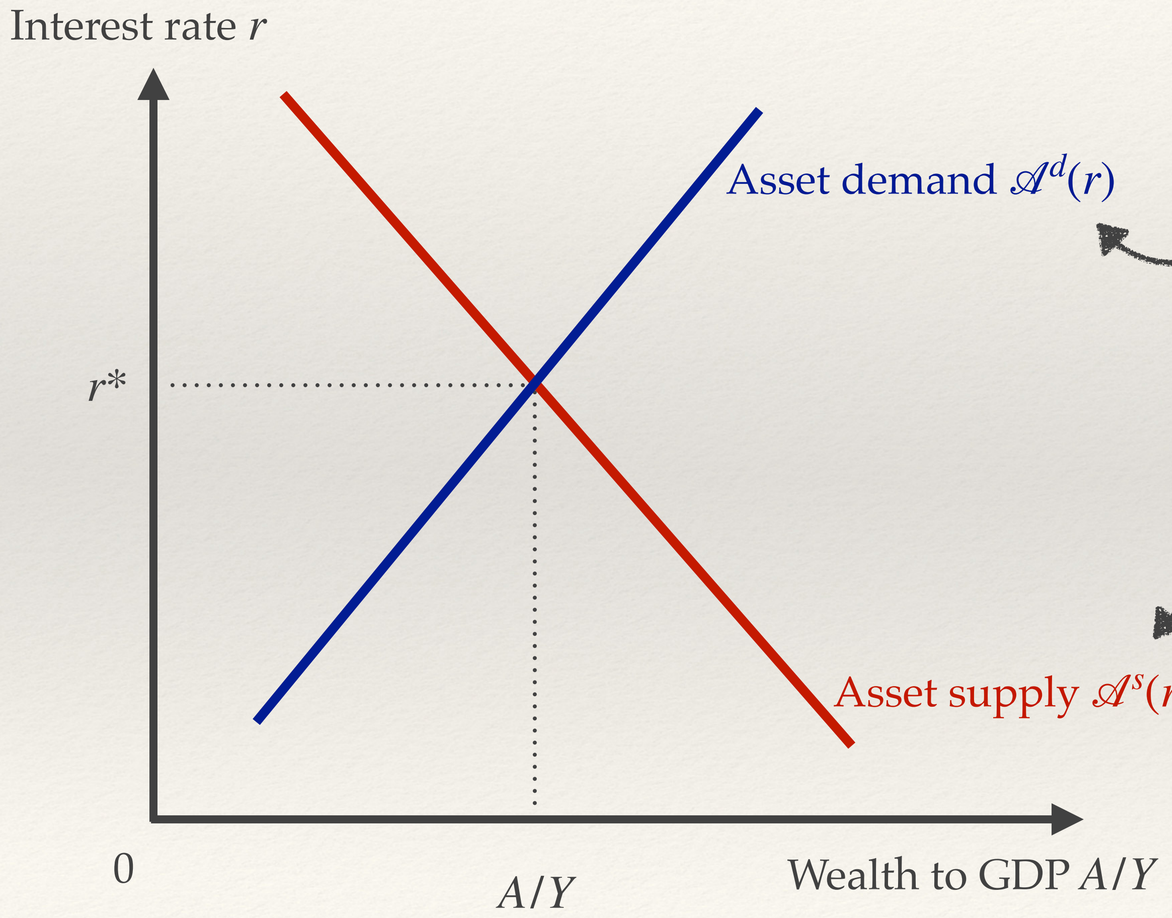

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Key: finite elasticity wrt r (unlike neoclassical model)

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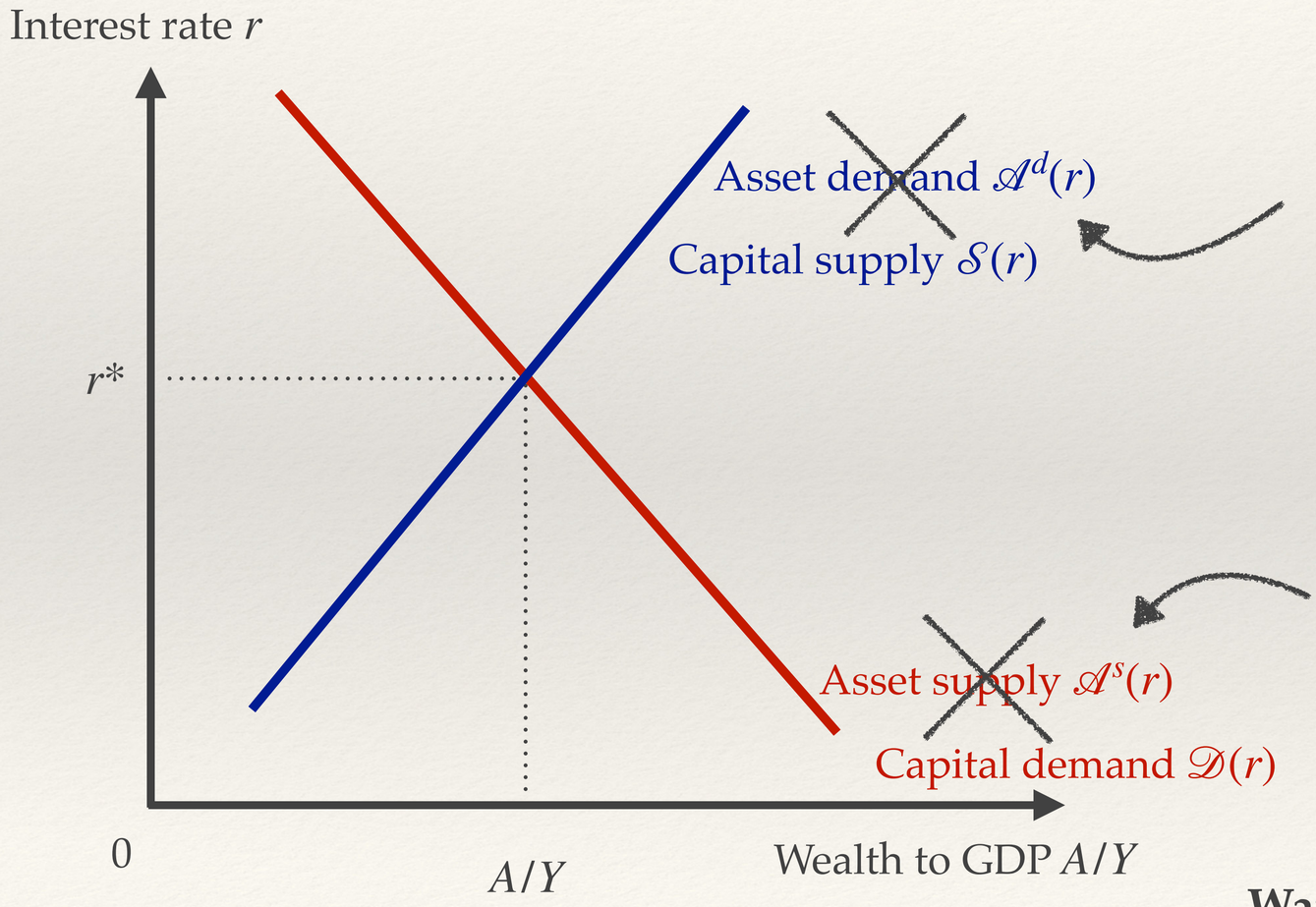

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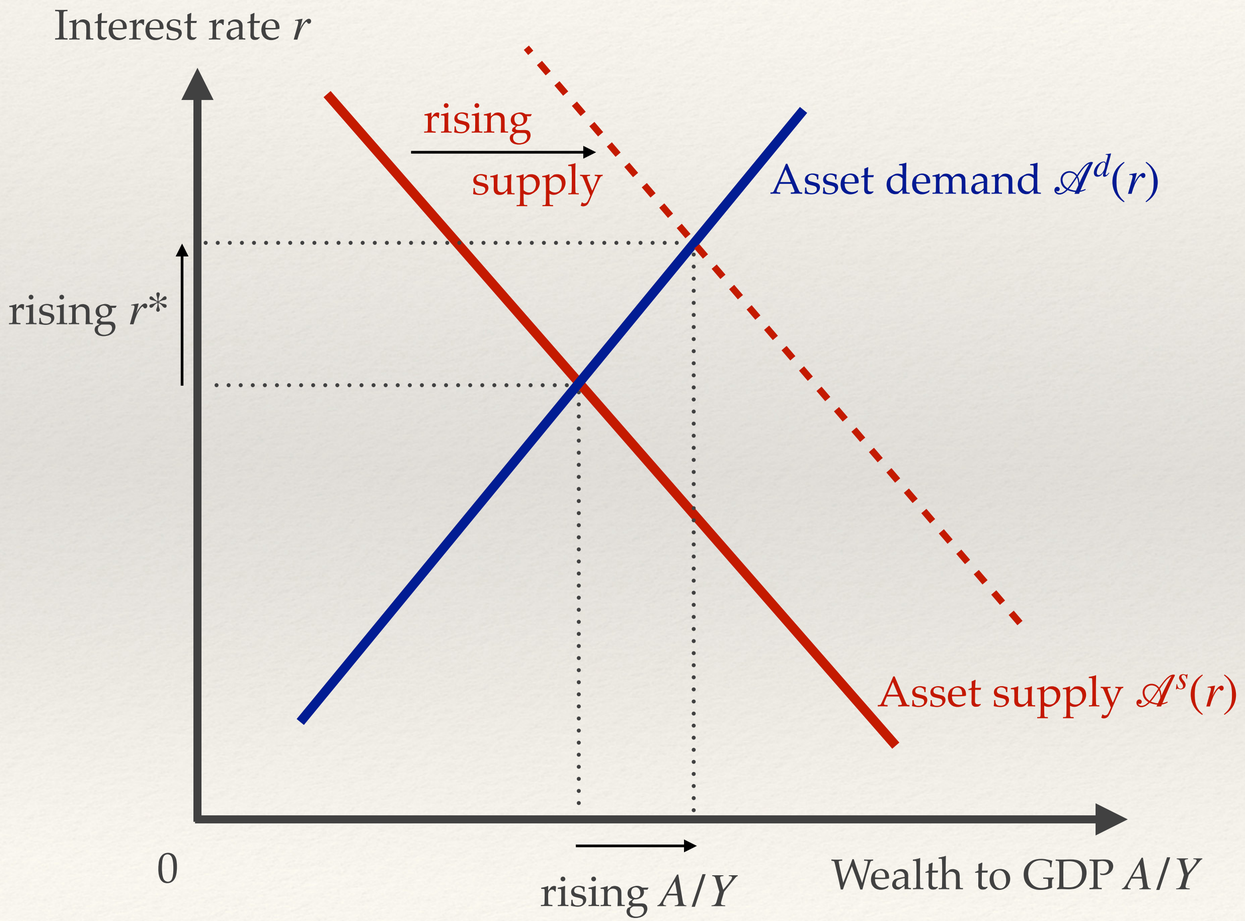
Warning: this paper uses the opposite convention!

Determinants of long-run r^*



Forces that raise asset supply:

- More government debt
- Automation / rising capital intensity
- Rising markups (so firm valuations!)
- Higher expected growth (valuations!)

If these forces dominate, r^* rises

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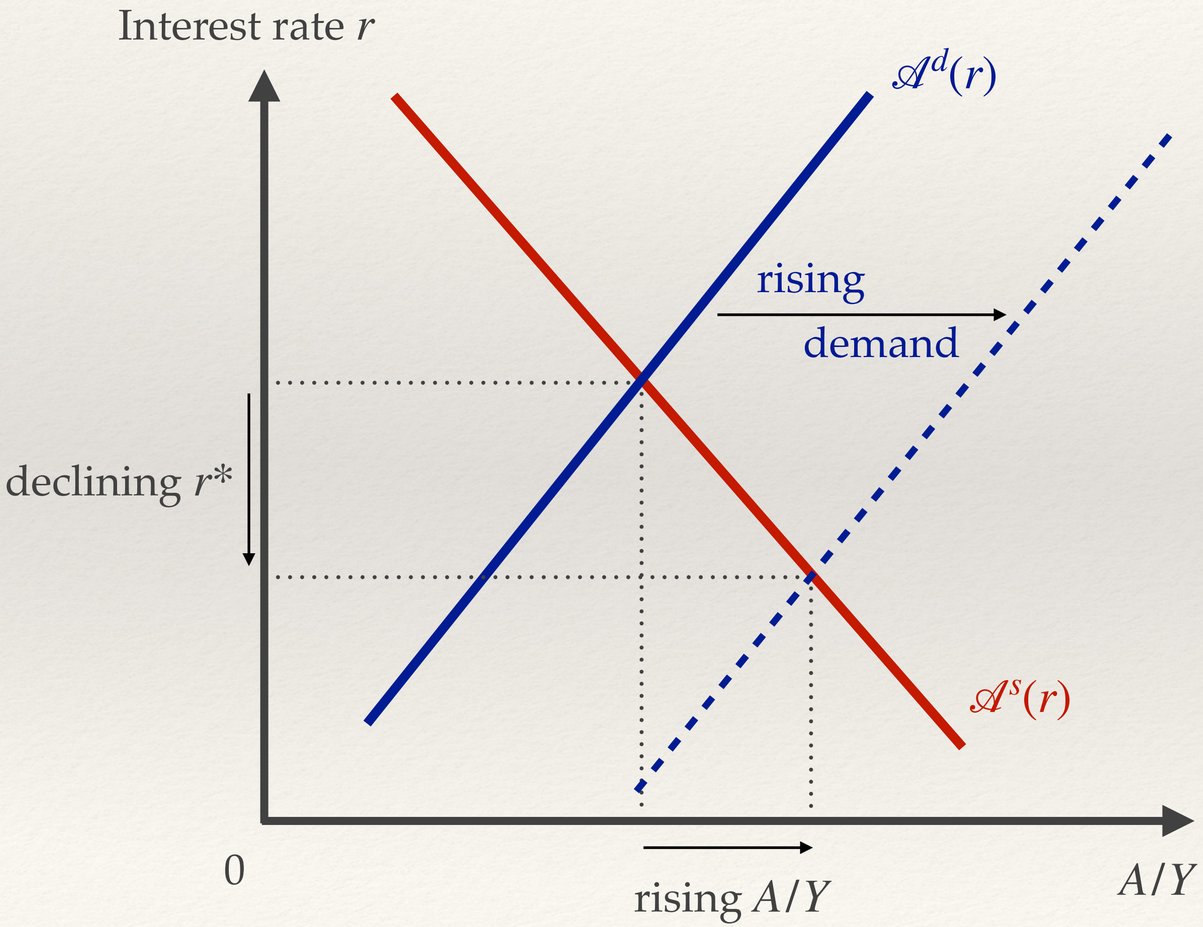

Forces that raise asset demand:

- Population aging
- Inequality
- Lower expected growth
- Lower taxes
- Less generous social security
- Rising foreign asset demand

If these forces dominate, r^* falls

Implementation in this paper

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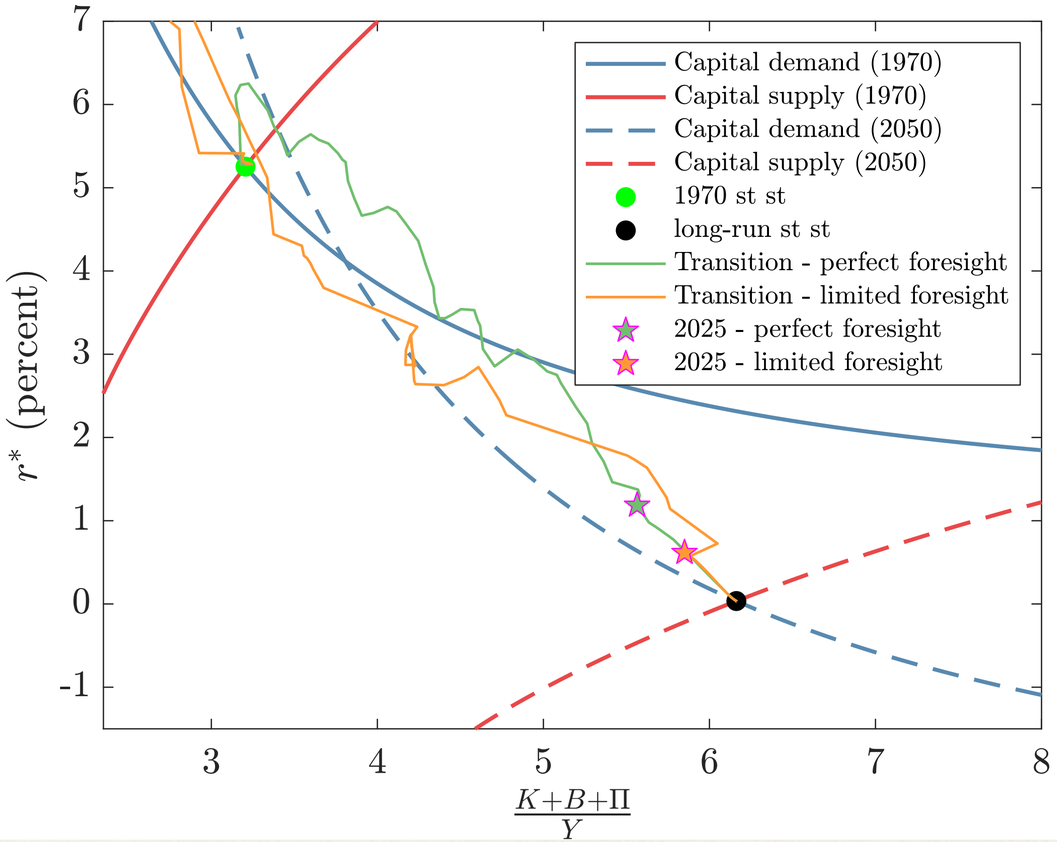
  - "Double heart attack" model [Blanchard, Gertler, Carvalho-Ferrero-Nechio,…]
  - Feed in changes in life expectancy, social security, labor taxes etc
- Calibrate, then study how r^* has evolved given these fundamentals

Main finding: asset demand wins!



Asset demand shifted by more than asset supply!

r fell, A/Y rose

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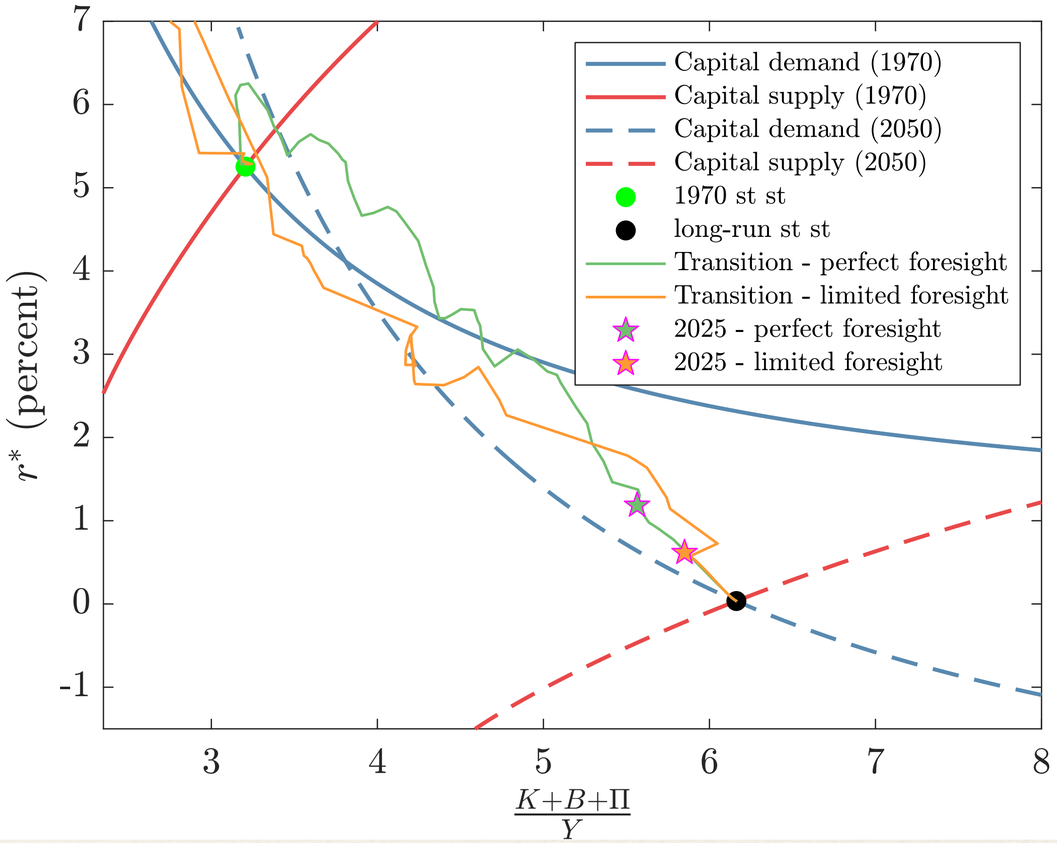

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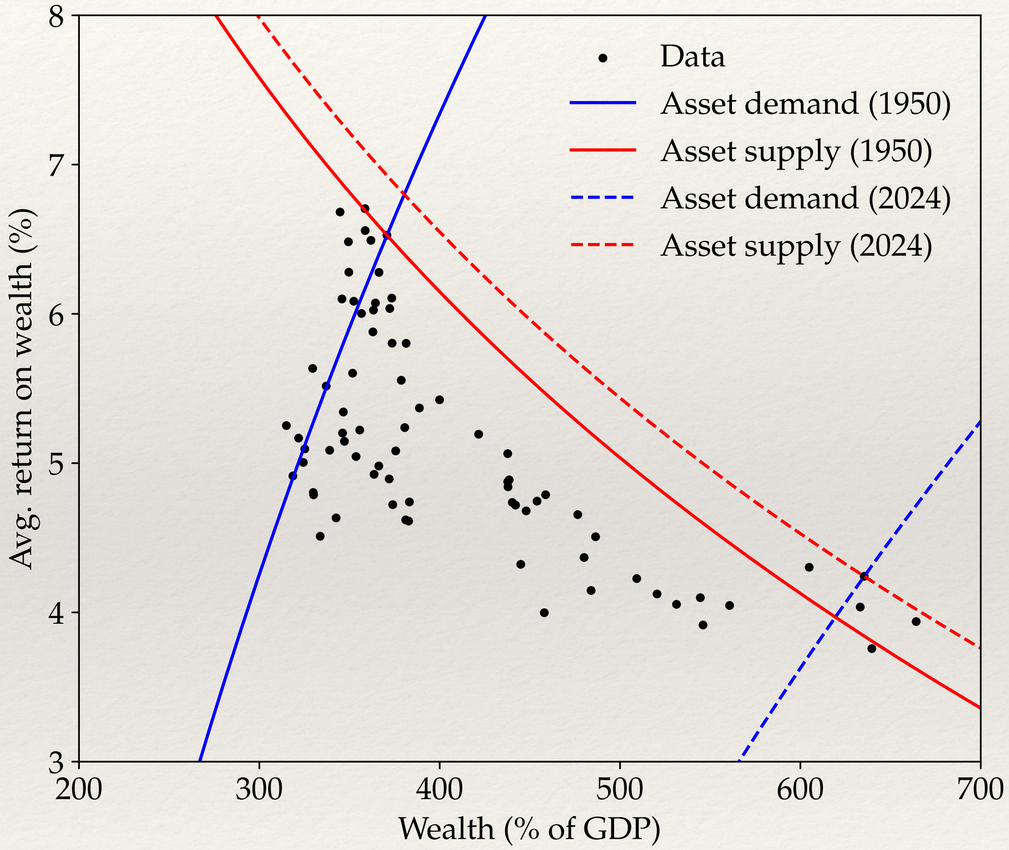

AMRS: Same message using different asset demand model
+ direct data on r !

Effects on *r** in bps, 1970-2050

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	This paper
Overall	-515
Productivity growth	-215
Demographics	-275
Inequality	—
Global saving glut	-25
Risk premium	-160
Government debt	145
Markups	105
Social security + taxes	130

Effects on r^* in bps, 1970-2050

	This paper	AMRS (1970-2024)
Overall	-515	-250
Productivity growth	-215	-63
Demographics	-275	-116
Inequality	—	-91
Global saving glut	-25	-66
Risk premium	-160	10
Government debt	145	55
Markups	105	220
Social security + taxes	130	17

Compared to AMRS:

Larger magnitudes overall (r^* observed vs not)

Agree on direction and rel. magnitude of most forces

Underlying asset demand model: tractable OLG

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- Double heart-attack model is OLG model with nice aggregation
  - Workers (and retirees) born at different times have same MPCs out of wealth
  - (Near) closed form solution for asset demand schedule as function of params

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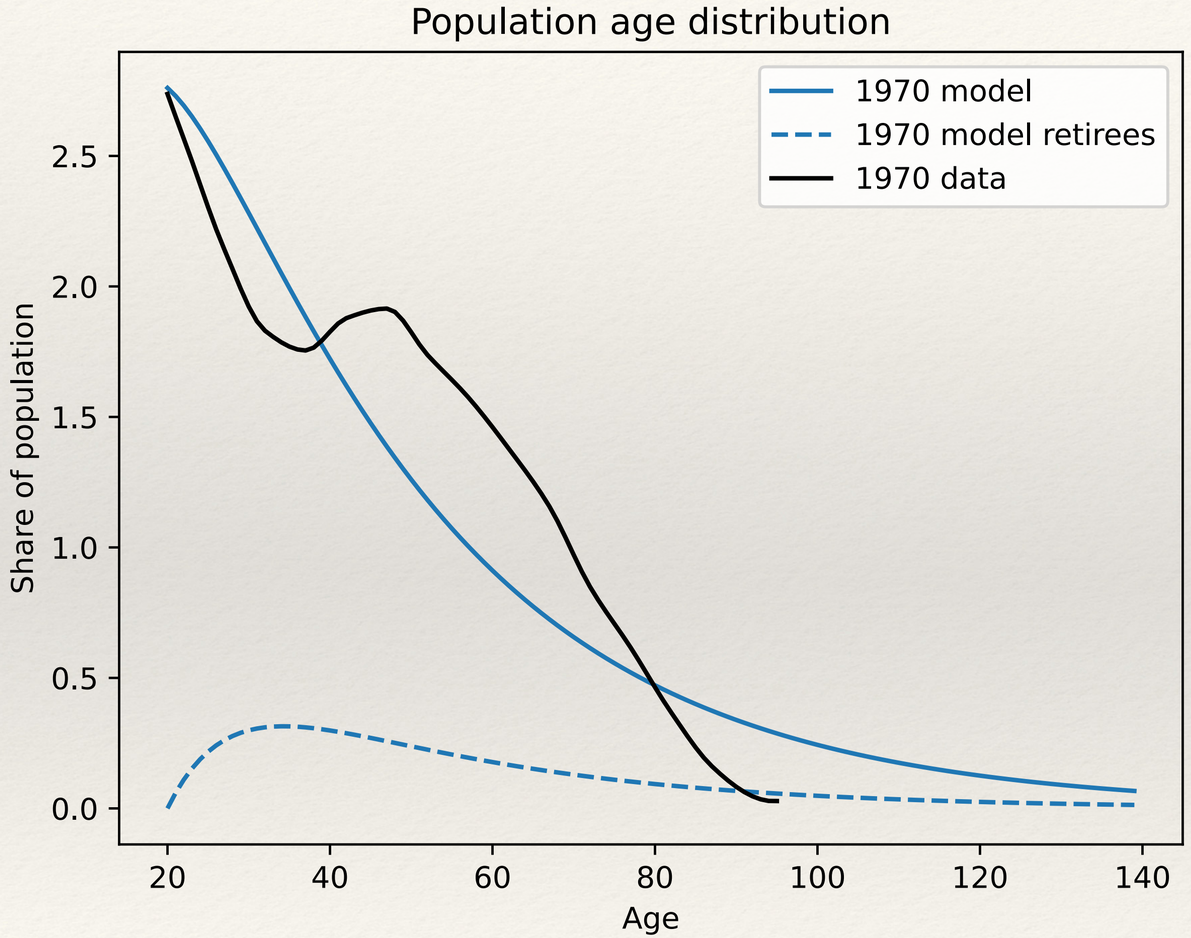
- Next: example of life expectancy (part of demographics)
  - In paper, by far the largest driver of the increase in wealth-to-GDP (+200%)

Micro implications of the tractable OLG model



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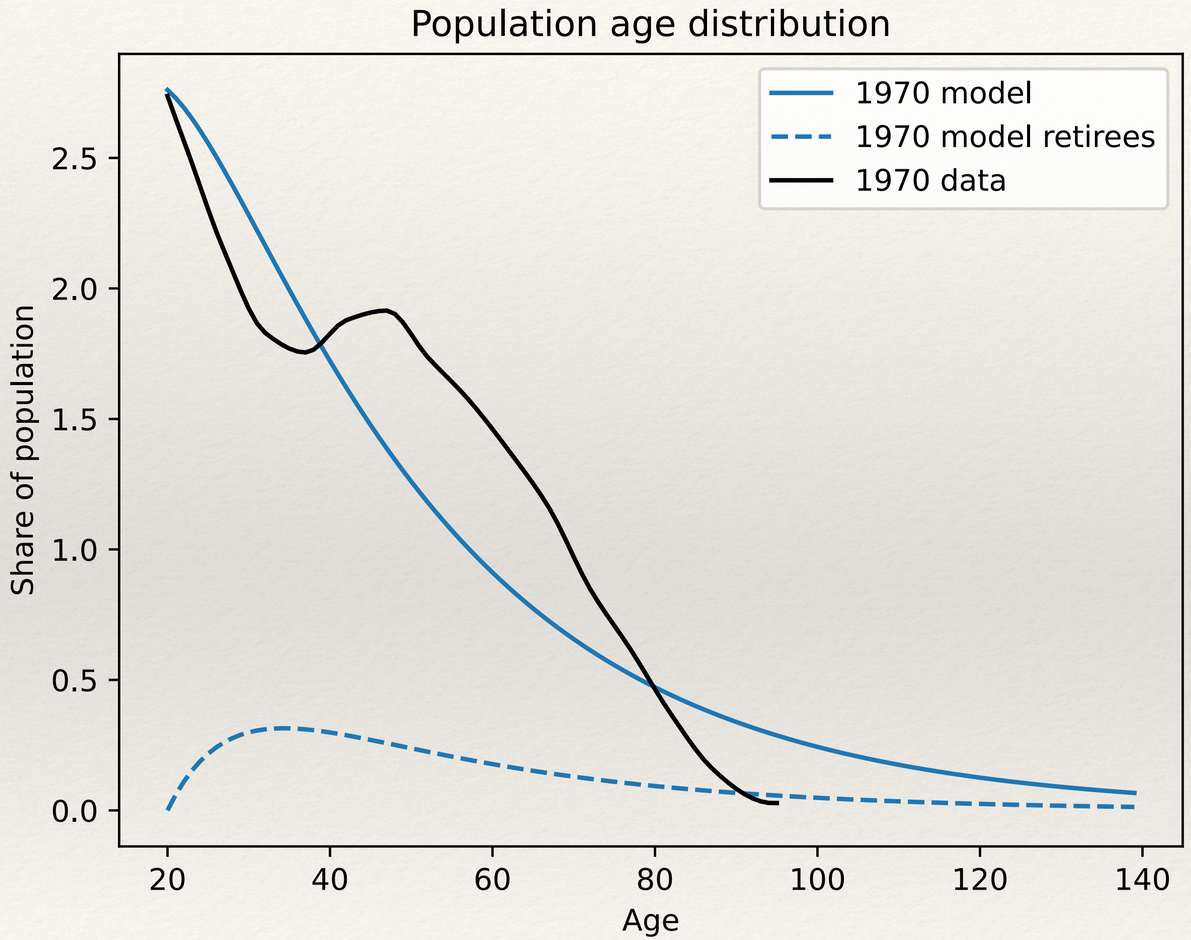

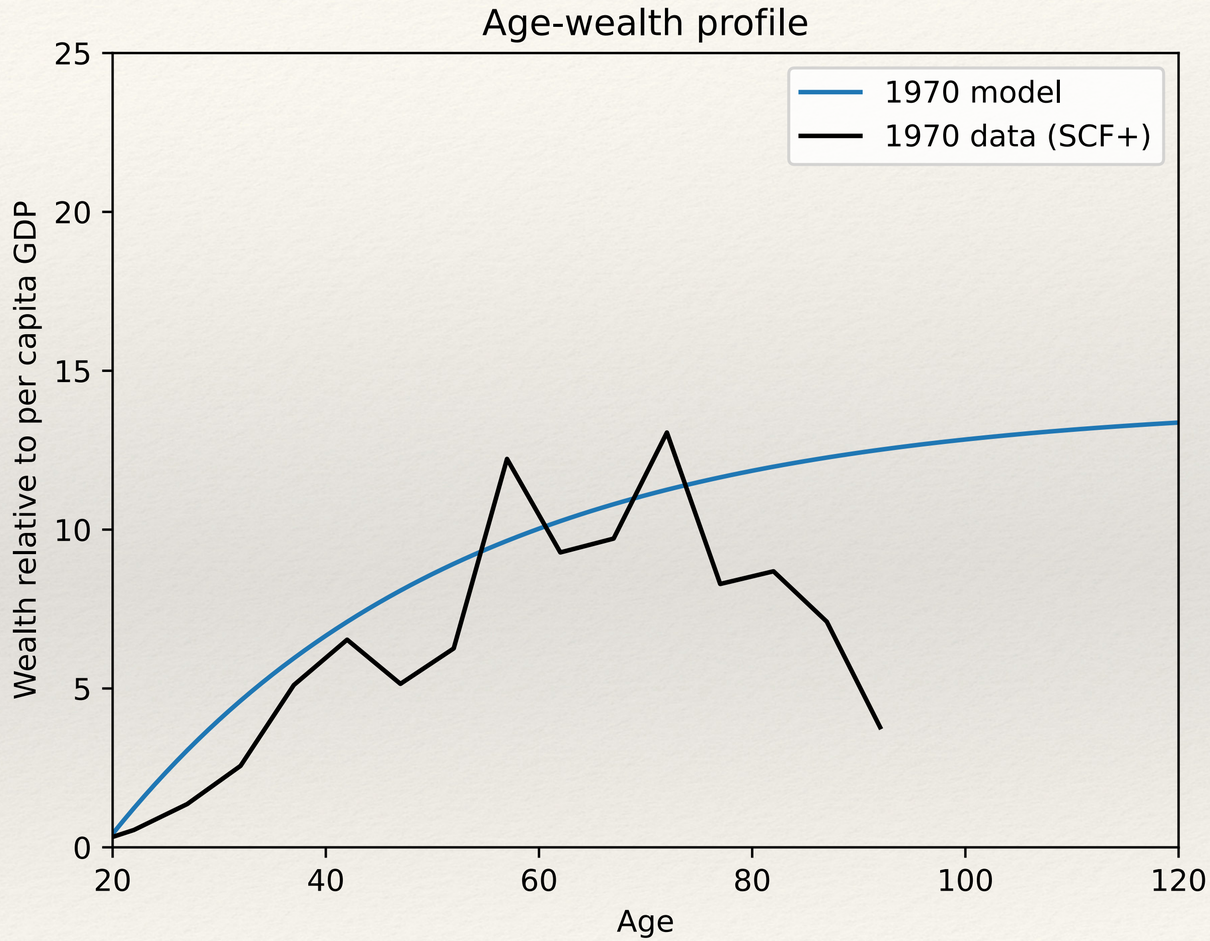

Model overestimates asset demand by having too many rich old people…

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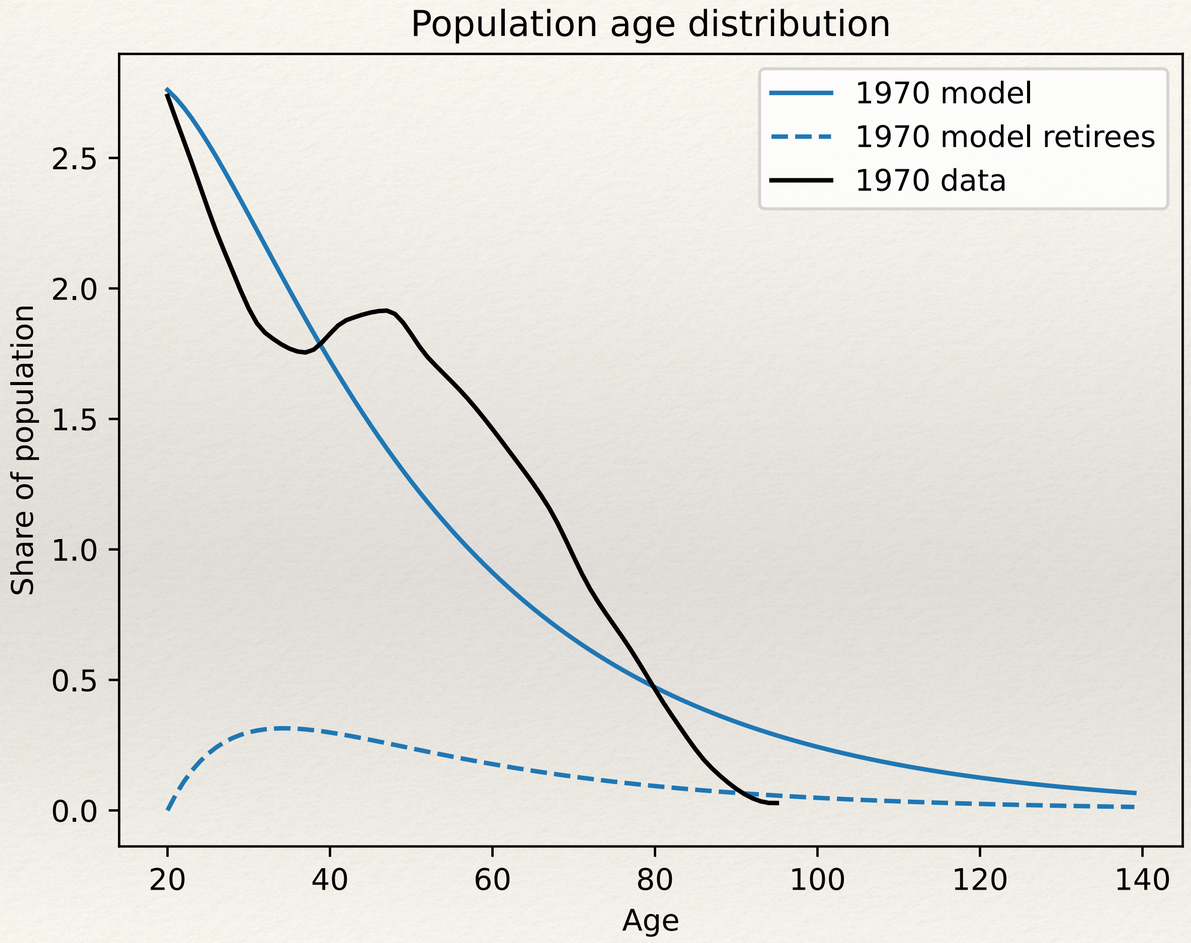
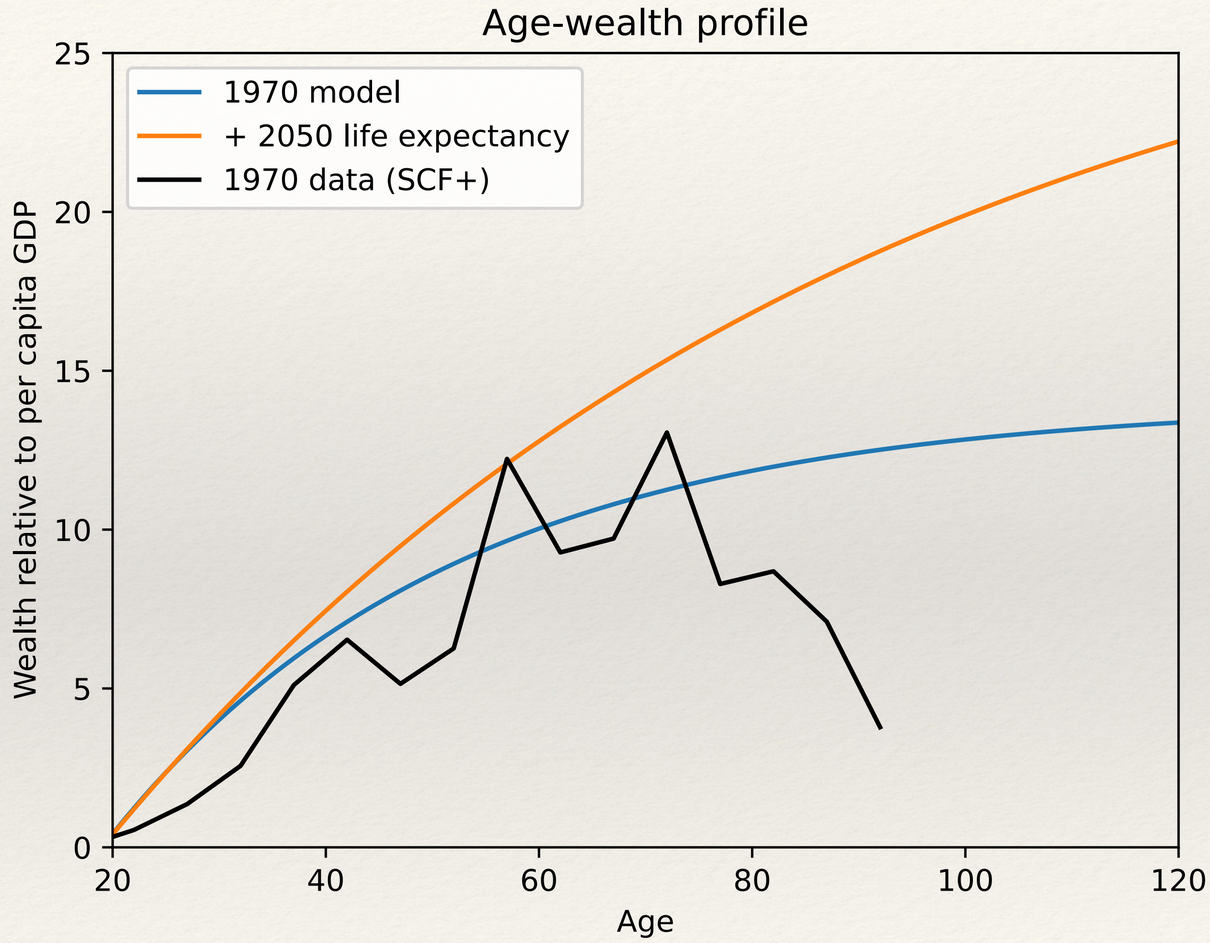
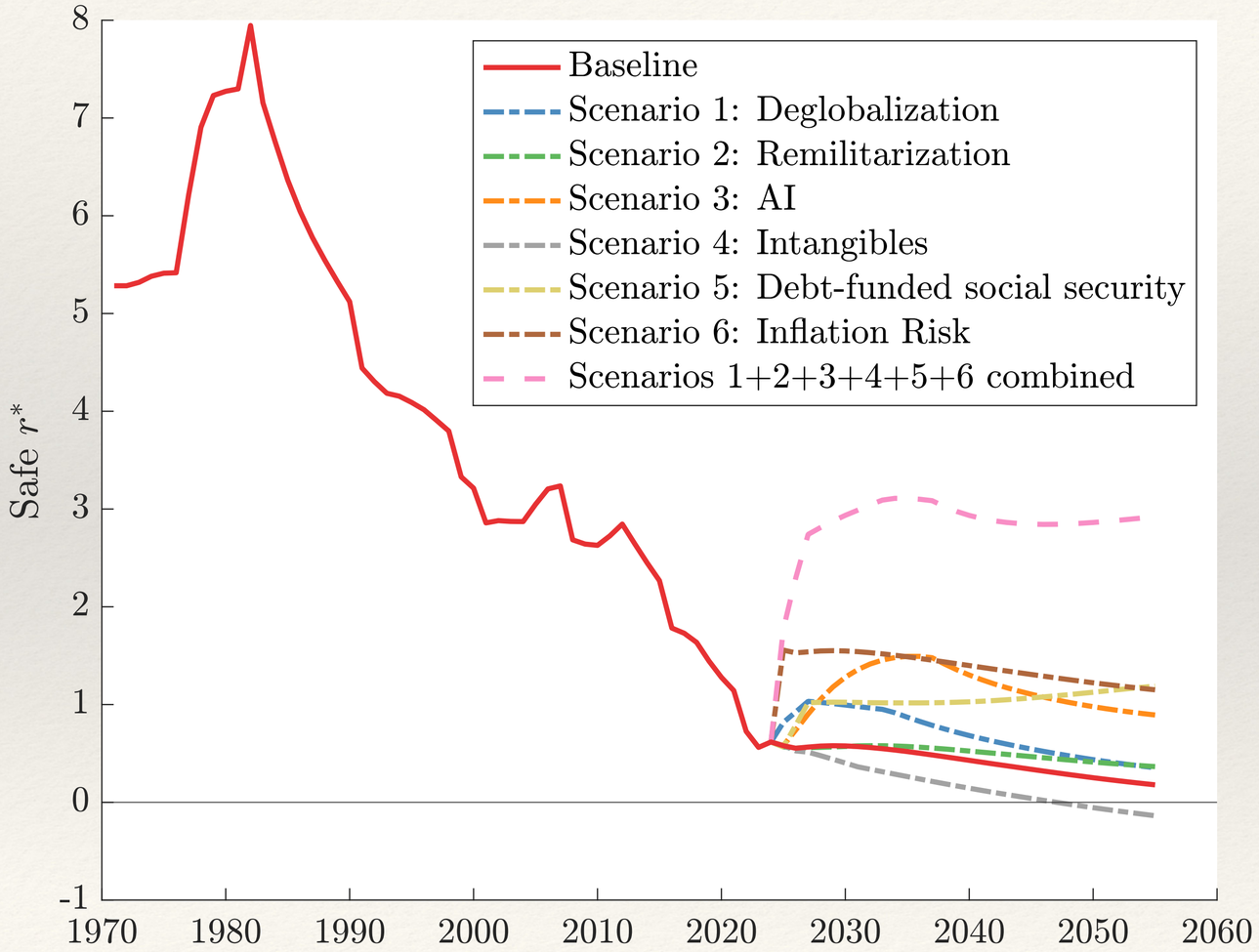




…and likely also overestimates the effect of mortality on life-cycle saving

Going forward scenarios



- Paper baseline: modest r^* ↓
- At end: 6 risk scenarios
- But "debt-funded social security" way too optimistic!
- Assumes social security +Medicare to 13% of GDP, debt to 145% of GDP
- CBO forecasts more… and no steady state in sight!
- see "The race between asset demand and asset supply"

Conclusion

- Excellent and timely paper, will be very influential!
- Clearly the right approach to r^*
- Magnitudes change a little when using micro-data-based asset demand
- Paper is too optimistic about the fiscal future