RESERVE BANK OF AUSTRALIA

Progressive Taxation and Monetary Policy in Australia

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September 4, 2025

This talk: Question

Question: How does tax progressivity affect monetary policy?

- tax progressivity acts as an automatic stabilizer against income changes
  $\rightarrow$ a decrease in pre-tax income is partially offset by a lower tax rate
- it affects households' precautionary savings, ability to accumulate wealth, influences labour force participation decisions

Those effects have implications for:

1. The natural rate of interest
2. Monetary policy transmission and trade-offs
3. The distributional effects of monetary policy

This talk: Approach

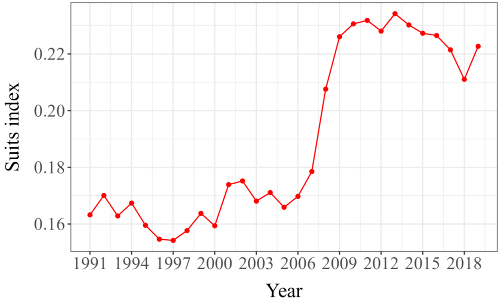
Answering this question

- requires a model with progressive taxation and heterogeneous households/incomes
- requires a general equilibrium model with price rigidities to study monetary policy

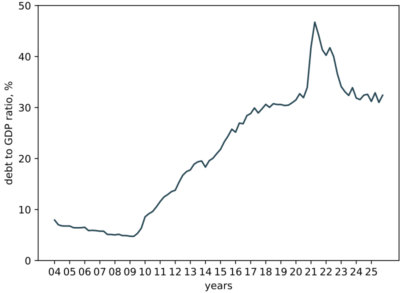
Approach: Australian HANK (Heterogeneous Agent New Keynesian) model

- households with different income and wealth levels
- households, firms, the central bank, fiscal authority, and foreign sector meet in asset, goods and labour markets and their decisions are based on current and expected economic conditions
- extensive fiscal block
- resource sector, open economy, offset accounts

Recent developments: Tax progressivity increased since the GFC



Source: Tran and Zakariyya (2023).



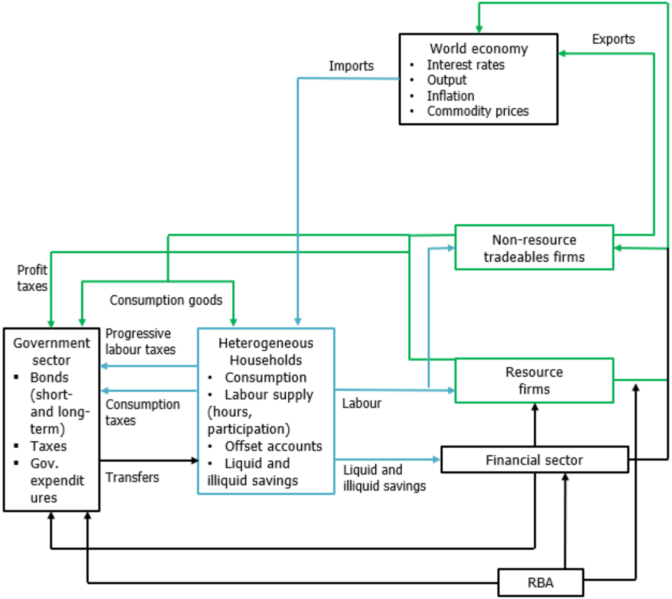
Source: ABS and AOFM.

- with government debt rising roughly at the same time - implications of which are more studied in the international literature, therefore a useful benchmark

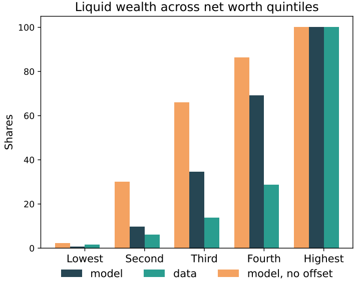
This talk: Results

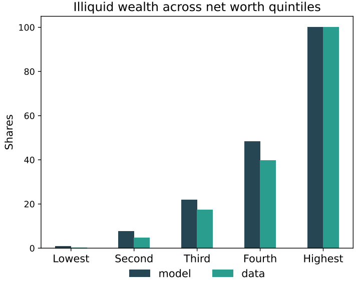
1. Natural rate:
   - A higher natural rate is associated with greater tax progressivity.
   - The increase in progressivity since the GFC has put an upward pressure of around 5 b.p. on the natural rate.
   - The contribution from government debt expansion is half of that.
   - The increase is primarily driven by the insurance role of progressive taxation.
2. Monetary policy transmission:
   - The insurance role of progressive taxation leads to higher labour force participation in response to monetary tightening.
   - A similar/slightly improved inflation-output trade-off under higher tax progressivity.
3. Distributional effects:
   - Changes the burden of monetary tightening across the population.

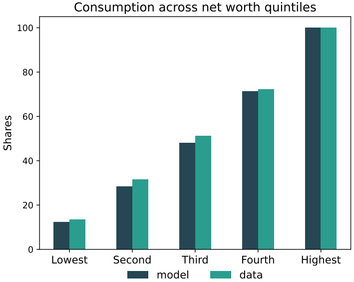
Australian HANK model

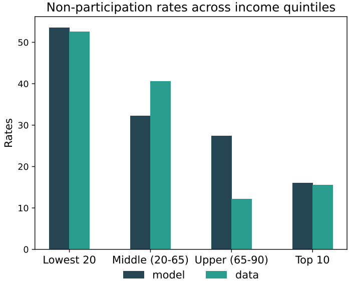


Model details: Heterogeneous households









Model details: Fiscal and monetary policies

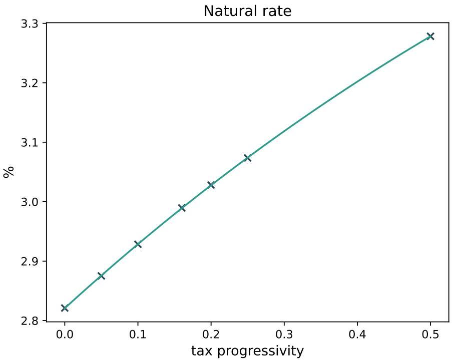
Fiscal policy tools:

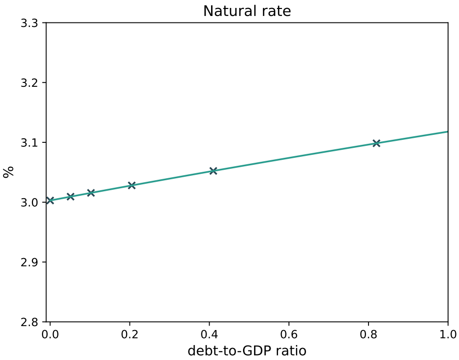
- progressive labour income taxes
- average labour income tax
- consumption tax
- profit tax
- government spending
- short- and long-term government debt

Monetary policy tools:

- cash rate

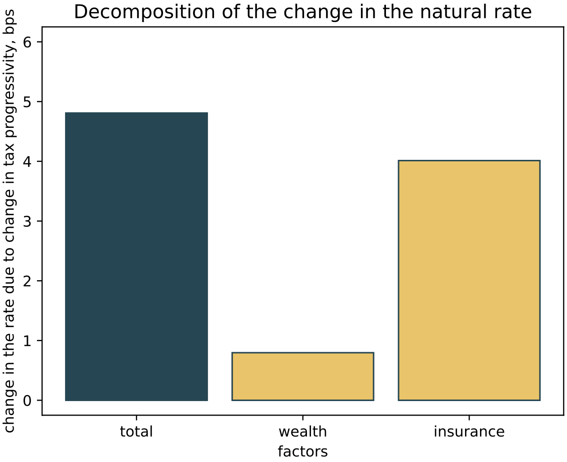
Quantitative results: Higher natural rate with higher tax progressivity





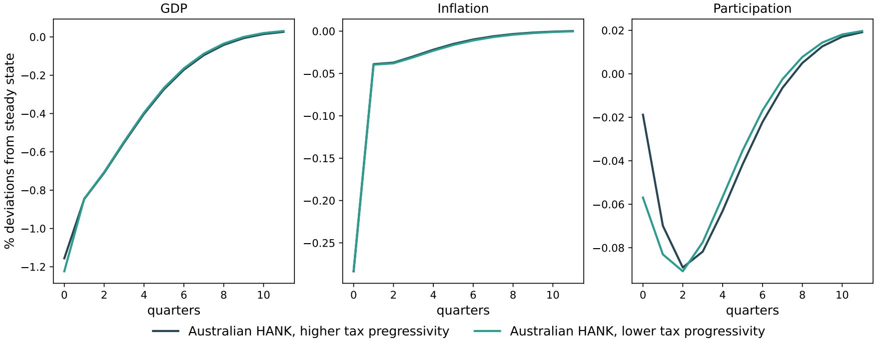
- natural rate is the riskless return that equates the demand and supply of savings in the long-run equilibrium - long-run r*
- since GFC change in progressivity from 0.16 to 0.2 $\rightarrow \approx 5$ b.p. in natural rate
- since GFC change in debt-to-GDP from almost 0 to 0.2 $\rightarrow$ half of the above

Quantitative results: Higher natural rate is driven by insurance motive



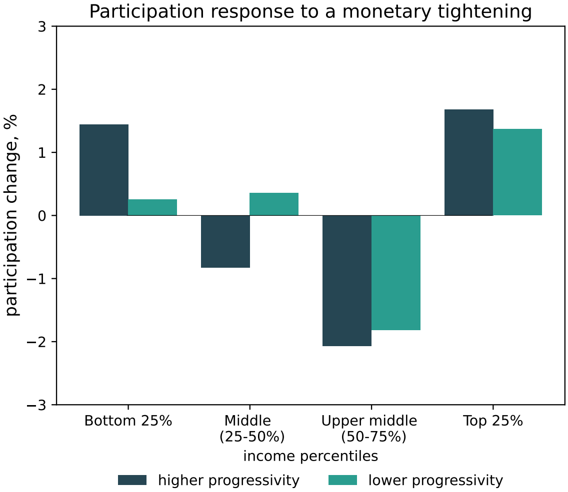
- when income shocks are better insured, less incentives for self-insurance through precautionary savings
- higher tax rates on high-income households, who have lower propensities to consume, lead to a decline in aggregate savings

Quantitative results: Similar/slightly improved inflation-output trade-off



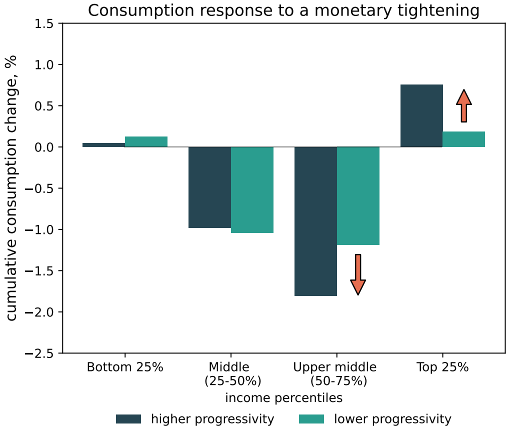
- with higher progressivity household labour force participation falls less when interest rates increase, which supports aggregate economic activity

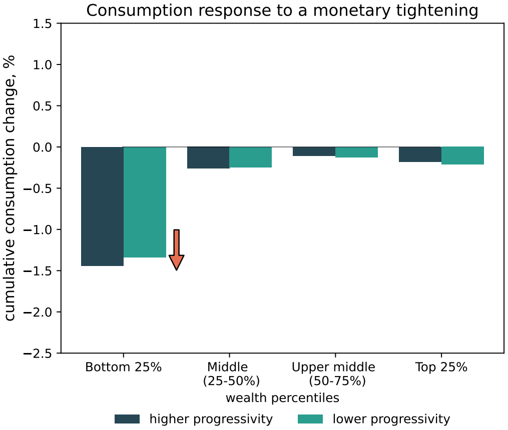
Quantitative results: Participation responses vary across the population



- bottom: higher participation due to a greater need to sustain consumption
- middle: lower participation as a result of reduced labour earnings and increased capital income
- top earners: higher participation due to a selection effect
- higher progressivity → amplification of responses

Quantitative results: Amplified distributional effects with higher progressivity





- amplification amid lower levels of precautionary savings with higher progressivity

Conclusions

The development of a new tool that combines household heterogeneity with aggregate dynamics provides a framework for investigating the implications of progressive taxation on monetary policy.

Higher tax progressivity implies

1. A higher natural rate of interest, driven by reduced levels of precautionary savings.
2. Higher participation in response to monetary tightening, which results in a smaller decline in economic activity and therefore a slightly improved/similar inflation-output trade-off.
3. Amplified distributional effects of monetary policy: beneficiaries gain more, while those who bear the costs experience greater losses.

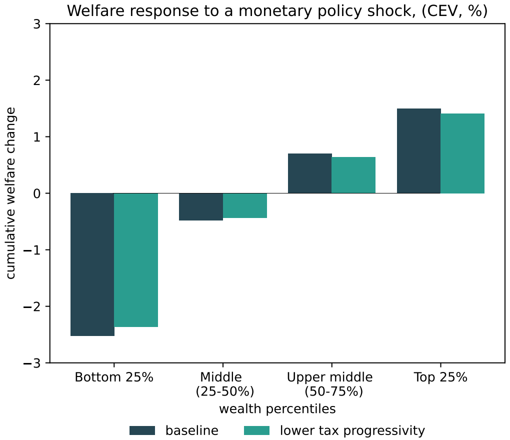
Spares

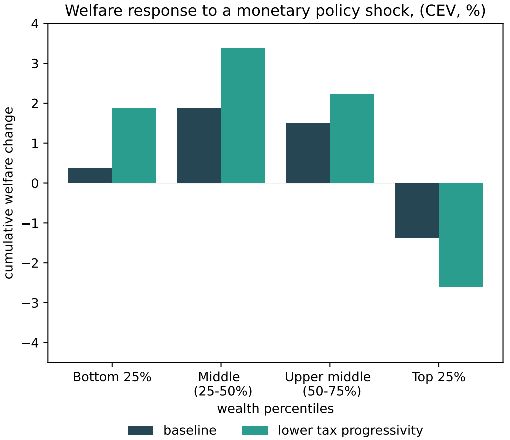
Future directions

The model allows to study

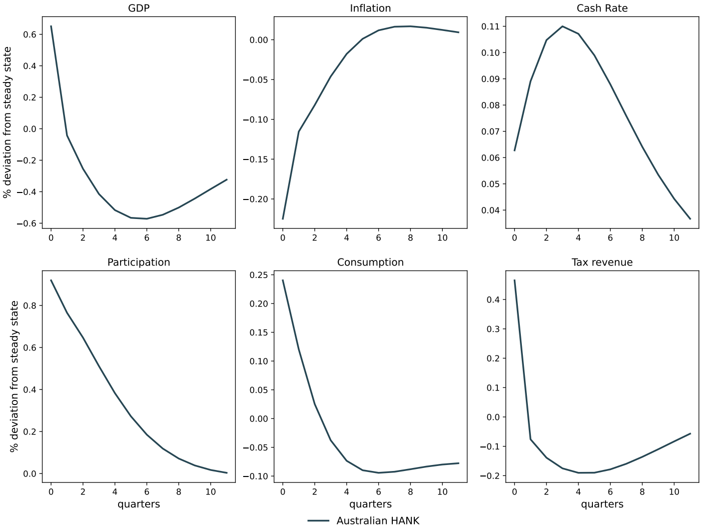
- distributional effects of shocks/policies
- changes in the distribution affect monetary transmission and the aggregate economy
- extensive fiscal block allows to look at the effects of debt maturity, liquidity premium, taxes, transfers, benefits on monetary policy
- ...

Quantitative results: Distributional effects depend on fiscal policy reaction to monetary tightening





Quantitative results: Increase in tax progressivity is inflationary



Drivers of r-star

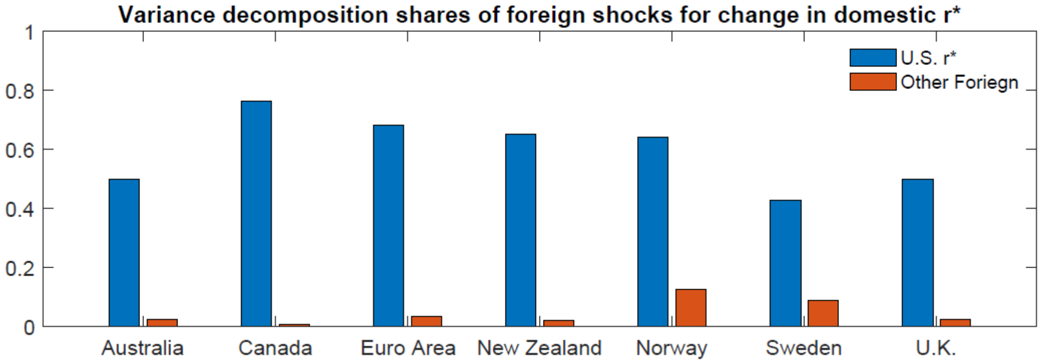


Figure 3: Morley and Wong (2025)

Progressive taxation