Low Interest Rates and the Household Sector

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The low interest rate environment

Causes

- **Global saving glut** (Bernanke 2005; Summers 2014; Rachel & Smith 2017)
- **Rich saving glut** (Mian, Straub & Sufi 2021)
- **Deregulation** of product, labour and financial markets
  - Lower price inflation + lower wage inflation + lower real rates = lower nominal rates
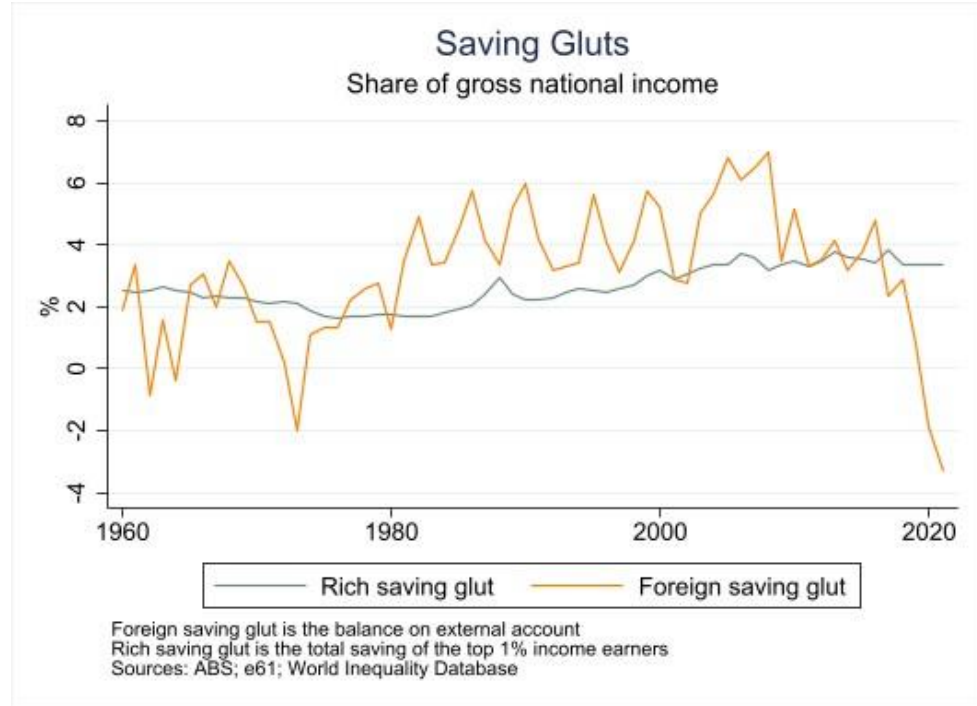
Consequences

- **Rising household wealth** relative to incomes (Piketty & Zucman 2014)
- **Expansion of household balance sheets** (Ellis 2006; Schularick & Taylor 2012; Jordà, Schularick & Taylor 2014)
- **Greater `financial fragility'** of the household sector (Bartscher et al 2020)
- Less known phenomenon: **rising household liquidity** (La Cava & Wang 2021)
  - Effect of low rates on financial stability risks may be benign

Causes of Low Interest Rates

Different types of gluts

- **Foreign saving glut**: the excess supply of foreign saving (=current account deficit)

- **Rich saving glut:** the total value of saving of the top 1% of richest income earners

- The rich saving glut is as large as the foreign saving glut in Australia (when measured by the top 1%)

Saving Gluts
Share of gross national income

Foreign saving glut is the balance on external account
Rich saving glut is the total saving of the top 1% income earners
Sources: ABS; e61; World Inequality Database

Rich saving gluts in the US and Australia

- **Increasing saving gluts of the rich over time**

- **Rising income inequality** has contributed to higher aggregate saving by the rich
  - Richer households save a higher fraction of their income

- Rich saving glut is larger in the US than Australia
  - Due to higher income inequality

Rich Saving Gluts
Share of national income
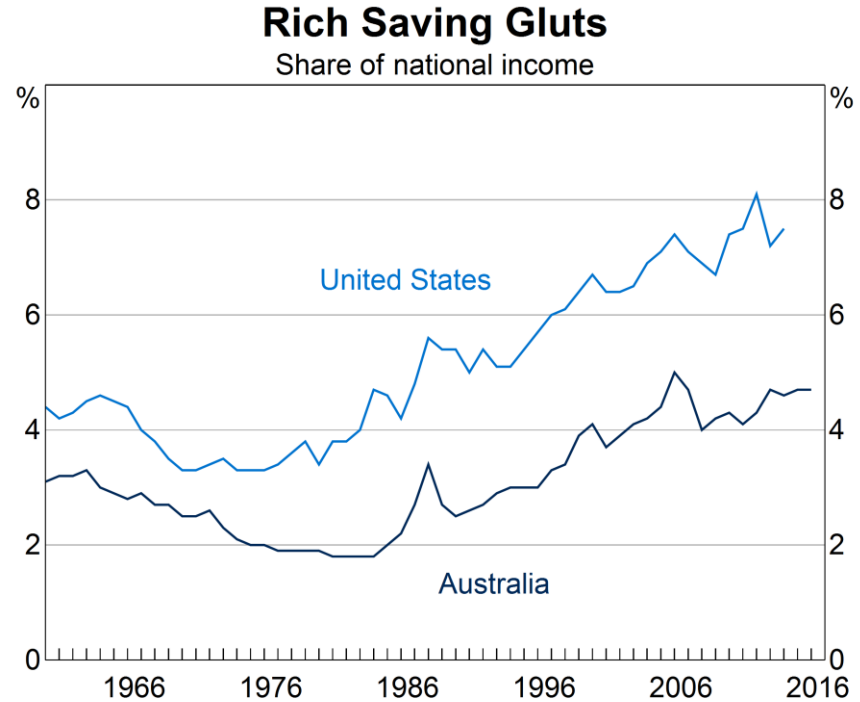
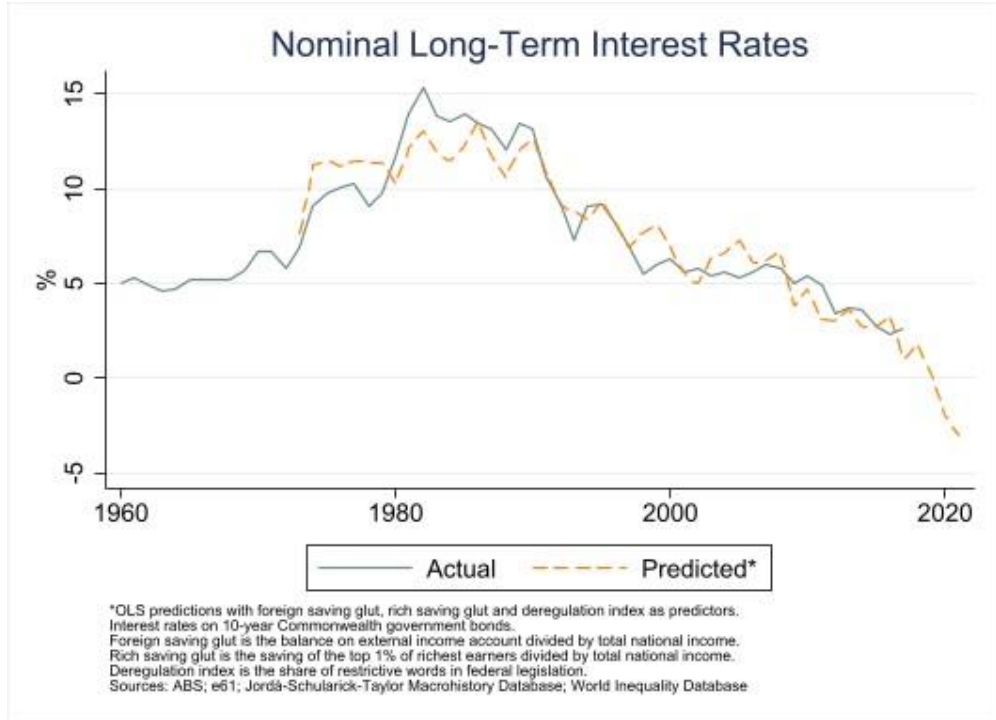Sources: ABS; Author's calculations; BEA; WID

Deregulation of product, labour and financial markets

- **Global trend towards less regulation** of product, labour and financial markets

- But **hard to quantify**

- Measured here through **text analysis** of Federal legislation (QuantGov)

- **Share of restrictive words in government regulations has declined** over time

Australian Deregulation Index*

*Restrictive words per 10,000 words in Federal legislative documents
Source: e61; QuantGov
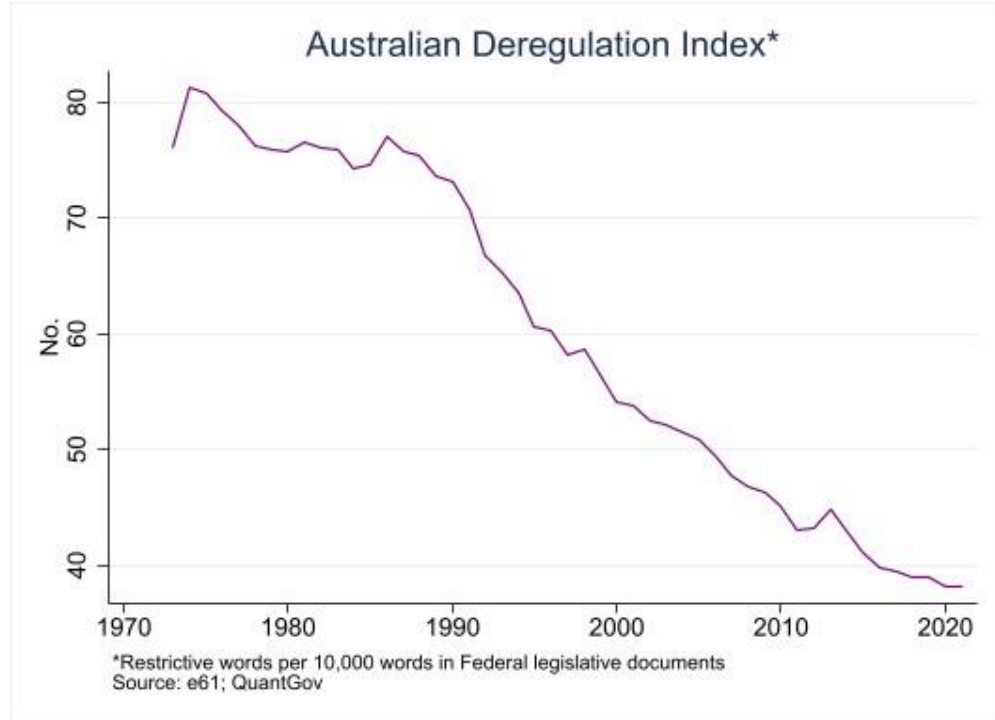
Causes of lower long-term interest rates

- A simple OLS regression does a pretty good job of predicting long-term interest rates in Australia

- Explanatory variables:
  - Foreign saving glut
  - Rich saving glut
  - deregulation index

- Might be something in this!

Nominal Long-Term Interest Rates

Actual — — — Predicted*

*OLS predictions with foreign saving glut, rich saving glut and deregulation index as predictors.
Interest rates on 10-year Commonwealth government bonds.
Foreign saving glut is the balance on external income account divided by total national income.
Rich saving glut is the saving of the top 1% of richest earners divided by total national income.
Deregulation index is the share of restrictive words in federal legislation.
Sources: ABS; e61; Jordà-Schularick-Taylor Macrohistory Database; World Inequality Database

# Consequences of Low Interest Rates

Fact #1: Household wealth has risen strongly relative to incomes

- The **household wealth to income ratio** has doubled over the past 3 decades

- Well documented trend across a range of advanced economies

Household Net Wealth
Relative to household disposable income

Sources: ABS; e61
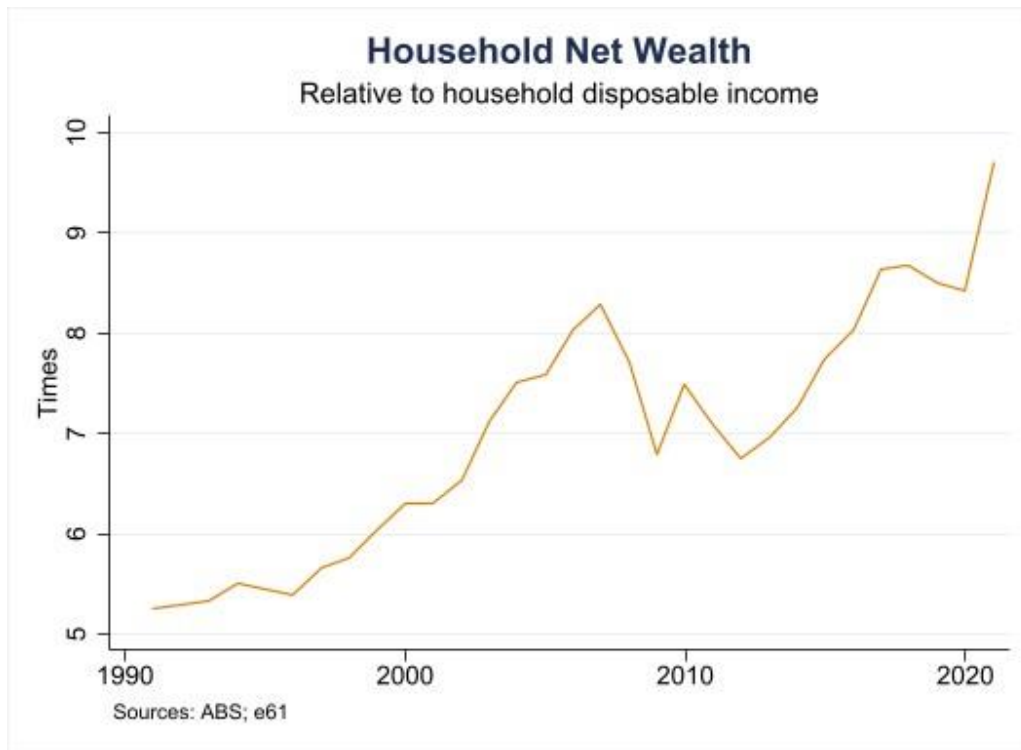
Facts #2 and #3: The expansion of household balance sheets

- **Household balance sheets have expanded on both sides** (assets and liabilities) relative to incomes

- This has been driven mostly by **higher housing prices** (on the asset side) and **higher mortgage debt** (on the liability side)


Household Balance Sheet
Share of disposable income
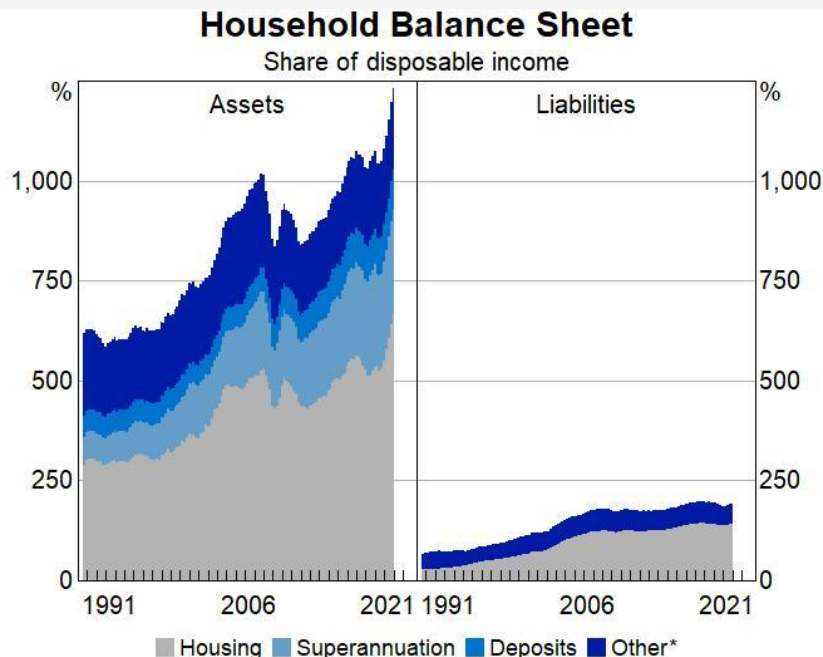
* Other assets include financial assets held outside of superannuation or deposits, consumer durables and all other non-housing non-financial assets; other liabilities include personal credit, student loans and all other non-housing liabilities.

Sources: ABS; APRA; RBA
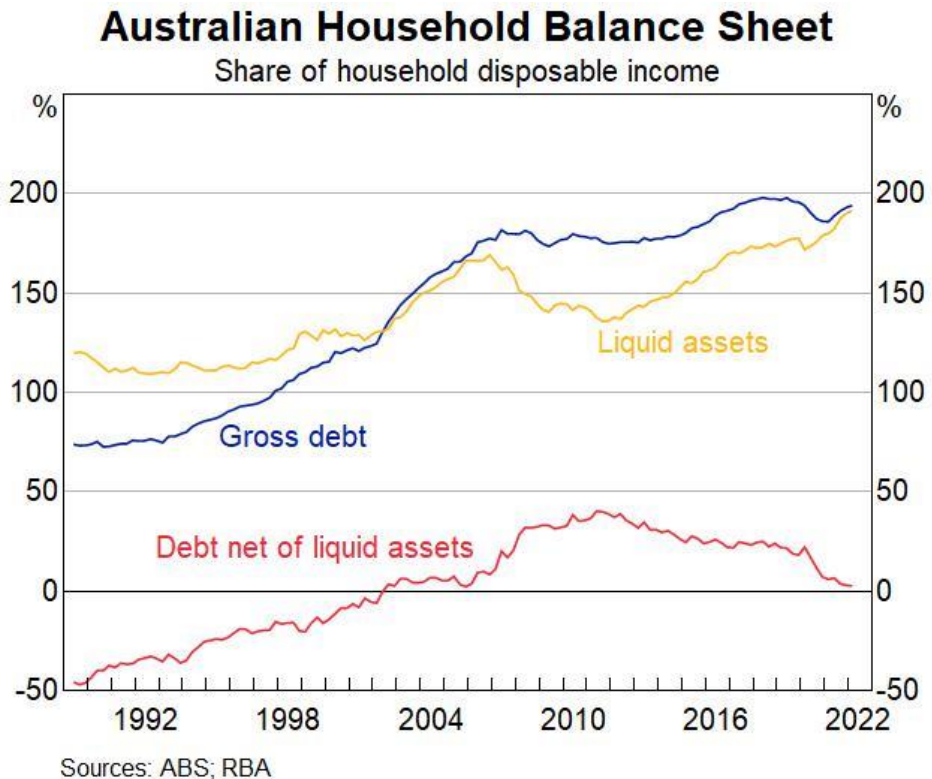
Fact #4: Household liquidity has risen strongly

- But it is less well known that **household cash and deposits have risen strongly** relative to incomes over the same period

Household Liquid Assets
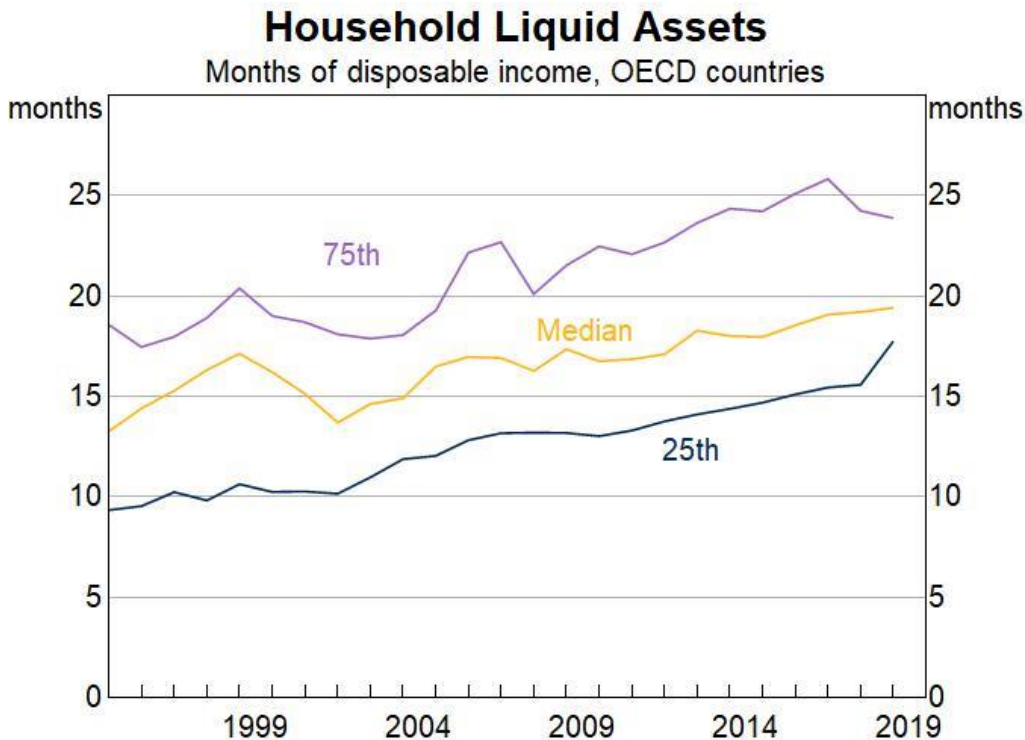Share of disposable income
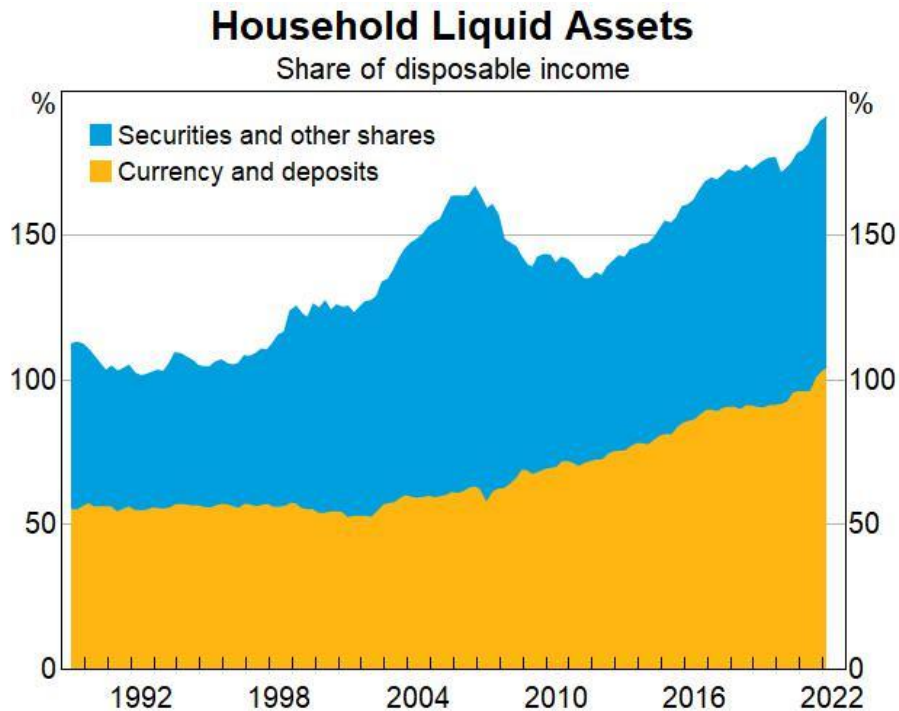
Sources: ABS; RBA

Fact #5: Household liquidity is as big as household debt

- In Australia, **the value of household liquid assets is the same as the value of total household debt**

- <u>Survey evidence</u>: trend rise in liquidity is broad-based, although mortgagors account for the bulk of the rise

Australian Household Balance Sheet
Share of household disposable income

Sources: ABS; RBA

Fact #6: Household liquidity has risen everywhere

- The rise in household cash and deposits (relative to income) is not confined to Australia

- Higher household liquidity has been observed across all the advanced economies over recent decades

Household Liquid Assets
Months of disposable income, OECD countries

months

25

75th

20

Median

15

25th

10

5

0

1999   2004   2009   2014   2019

Sources: Authors' calculations; OECD

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Fact #7: Household financial stress has declined

- **Household financial stress has gradually fallen** over recent decades

- This has occurred despite weak household income growth

- Is the rise in household liquidity the `smoking gun'?

Share of Households in Financial Stress*
By housing tenure
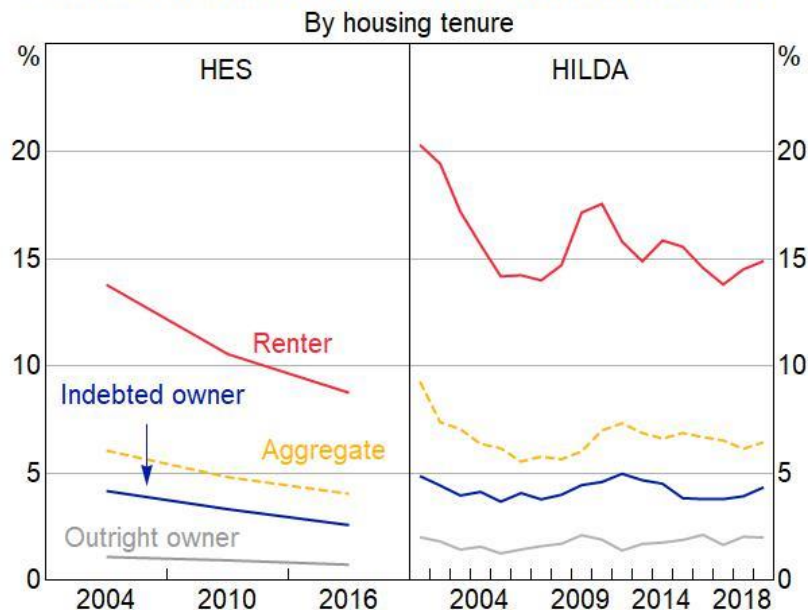
* A household is in financial stress if they experience three or more indicators of financial stress such as unable to pay bills on time, unable to heat home and etc.

Sources: ABS; HILDA Release 19.0; RBA

A call for more research

More on the causes…

- What are the effects of deregulation?

- How are deregulation, inequality and the finance sector linked?

More on the consequences…

- Do low interest rates contribute to greater financial fragility? Or are rapidly increasing interest rates more of a problem?

- How will the household sector respond to a `rapid return to normal' with high levels of both debt and liquidity?

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Q&A

Reserve Slides

Hand-to-mouth Households

Share of all households, financial year

Legend: Wealthy HtM, Poor HtM
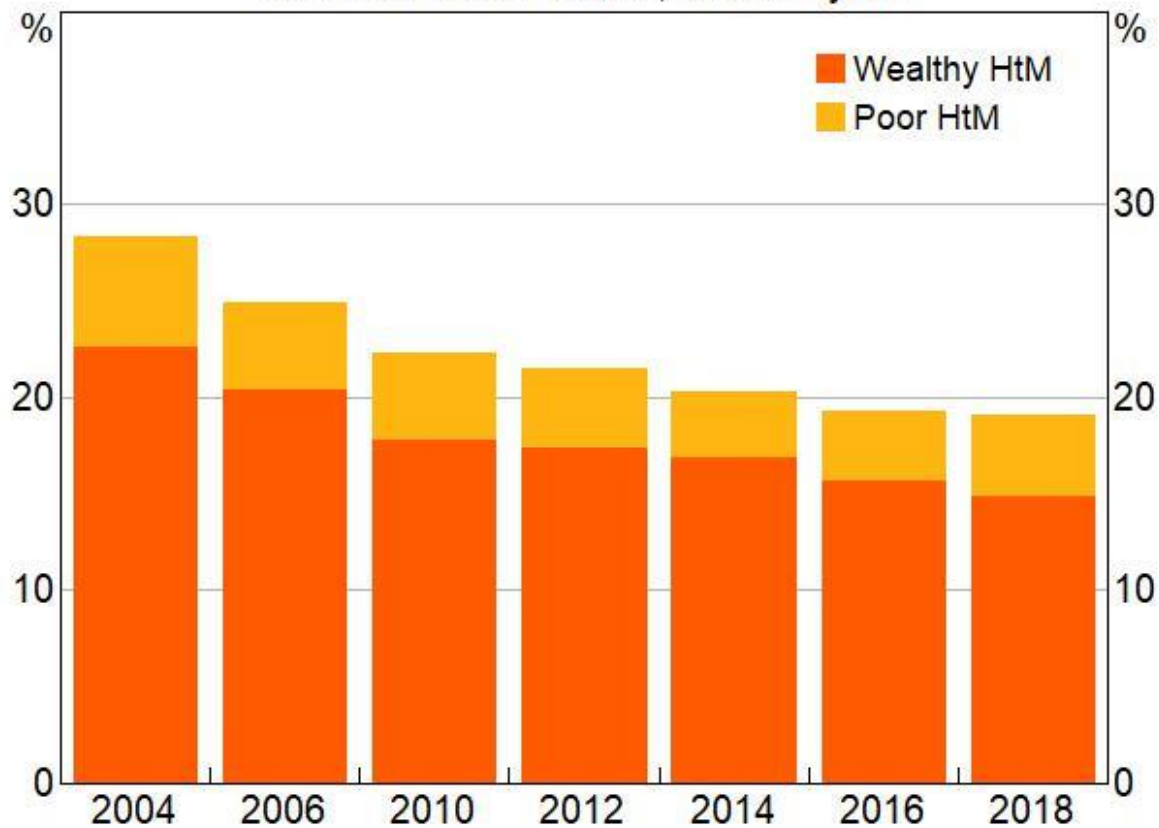
Sources: ABS; Authors' calculations

Hand-to-mouth Households by Housing Tenure

Share of all households, financial year
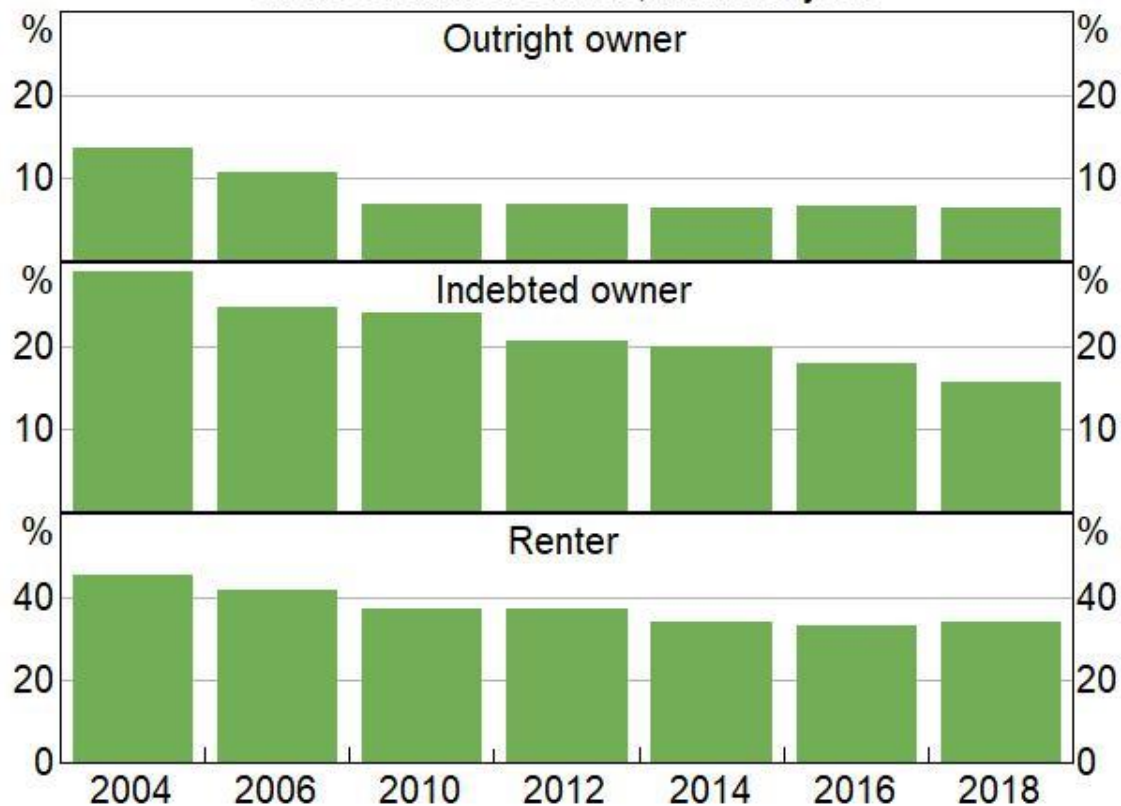
| Source	SS	df	MS			
				Number of obs	=	45
				F(3, 41)	=	91.38
Model	516.076117	3	172.025372	Prob > F	=	0.0000
Residual	77.1860628	41	1.8825869	R-squared	=	0.8699
				Adj R-squared	=	0.8604
Total	593.26218	44	13.4832314	Root MSE	=	1.3721

ltrate	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
restrictshare	.2203677	.0435582	5.06	0.000	.1324002	.3083352
foreign	.7377924	.1322146	5.58	0.000	.4707796	1.004805
rich	-.4798168	.4260091	-1.13	0.267	-1.34016	.380526
_cons	-5.698139	4.827706	-1.18	0.245	-15.44789	4.051612

Relative Wages and Deregulation in the Finance Sector
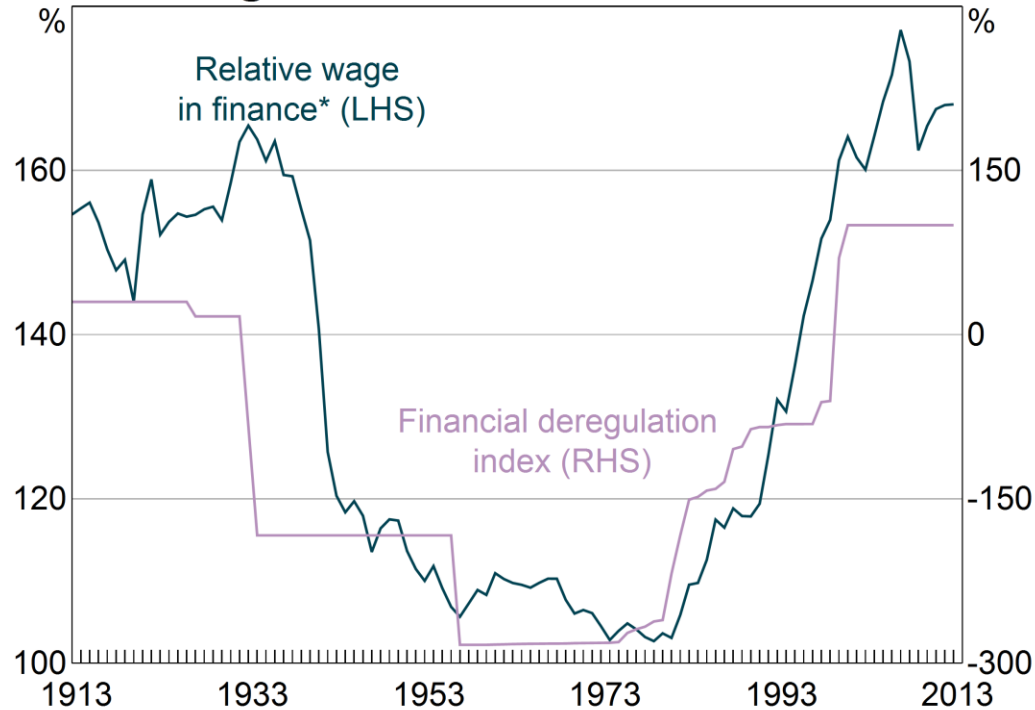
Relative wage in finance* (LHS)

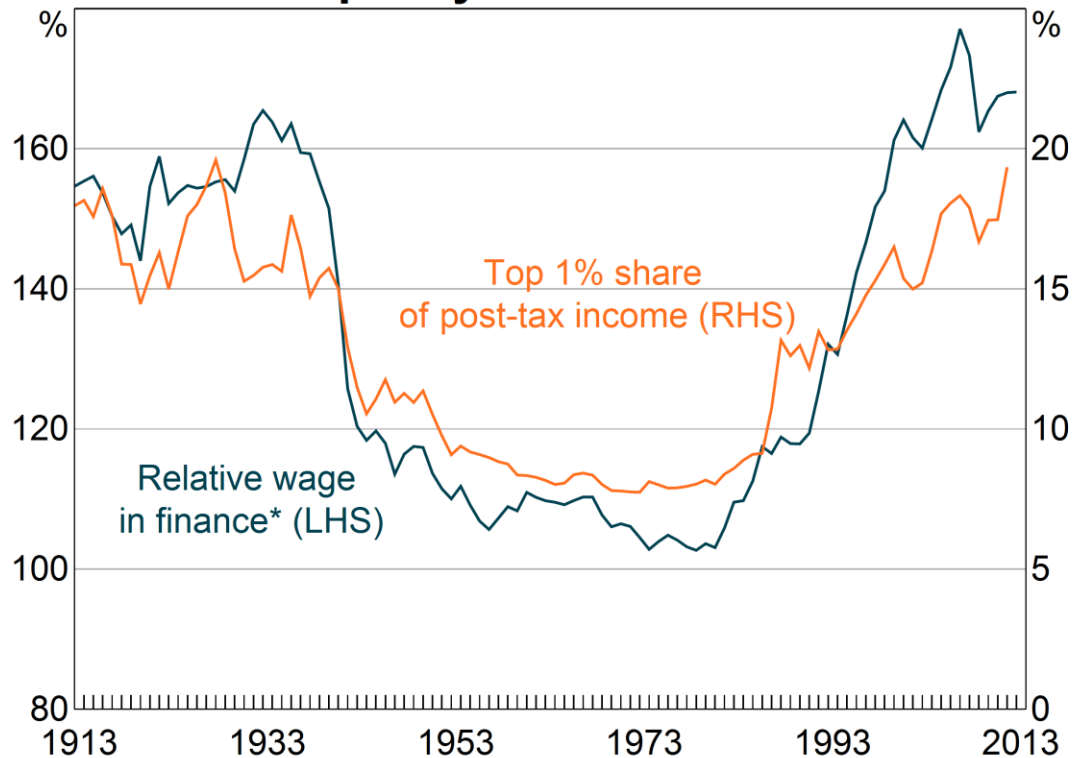Financial deregulation index (RHS)

* Ratio of average wage in finance and insurance relative to private non-farm average wage

Sources: Author's calculations; Bureau of Economic Analysis; Philippon and Reshef (2006); Piketty and Zucman (2017); World Inequality Database

Income Inequality and the Finance Sector

* Ratio of average wage in finance and insurance relative to private non-farm average wage

Sources: Author's calculations; Bureau of Economic Analysis; Philippon and Reshef (2006); Piketty and Zucman (2017); World Inequality Database

Inequality and Relative Wages in Finance
By US state, 1969 to 2014

Notes: The relative wage in finance is measured as the ratio of average earnings in finance to average earnings in all industries.

Change in Share of Earners
in the Top 1%
1979 to 2005
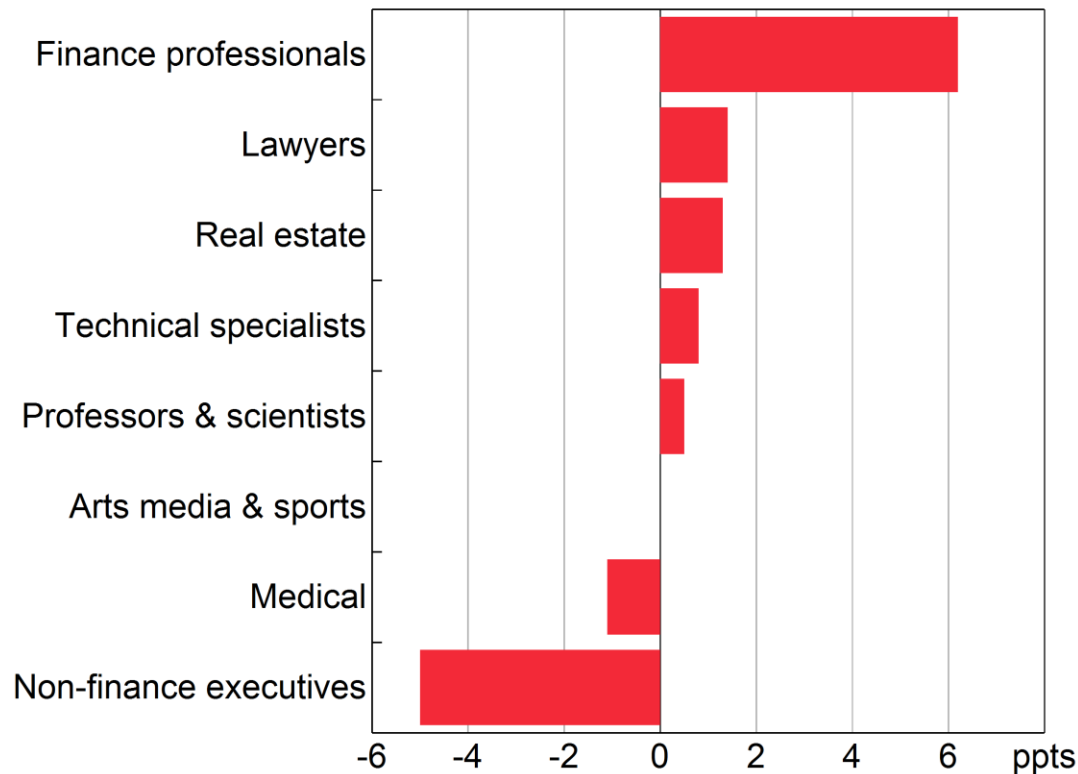
Sources: Author's calculations; Bakija; Cole & Heim (2012)

Change in Income of the Top 1%

## Contribution to change in national income, 1979 to 2005
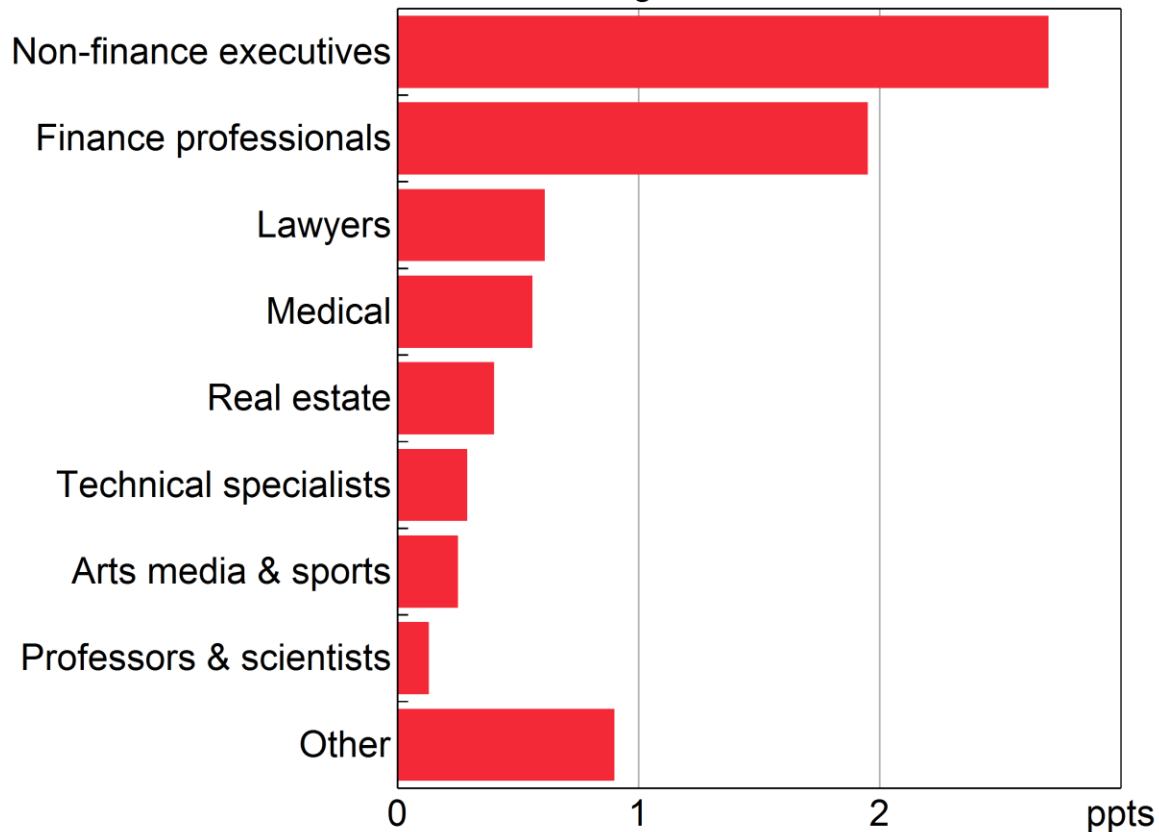
Sources: Author's calculations; Bakija; Cole & Heim (2012)

Does monetary policy affect inequality?

- Sort of
- Multiple channels (and contrasting effects) on income and wealth inequality:
  - Unemployment & labour income
  - Housing wealth & rental income
- Effects appear to be temporary
  - Monetary policy is cyclical
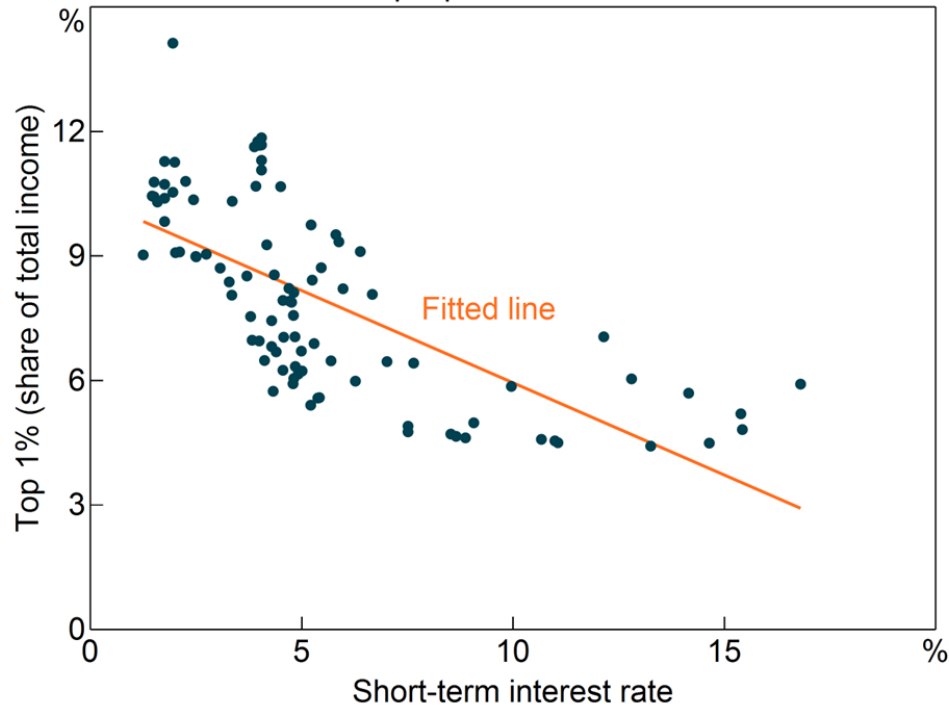 - But what about the secular decline in interest rates?

Income Inequality and Interest Rates
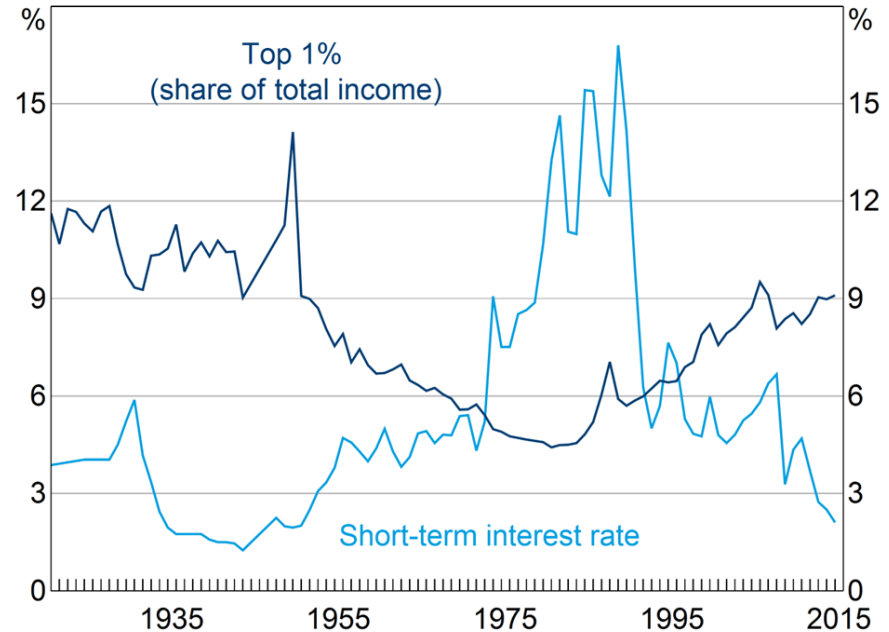
Sources: Jorda-Schularick-Taylor Macrohistory Database; World Inequality Database
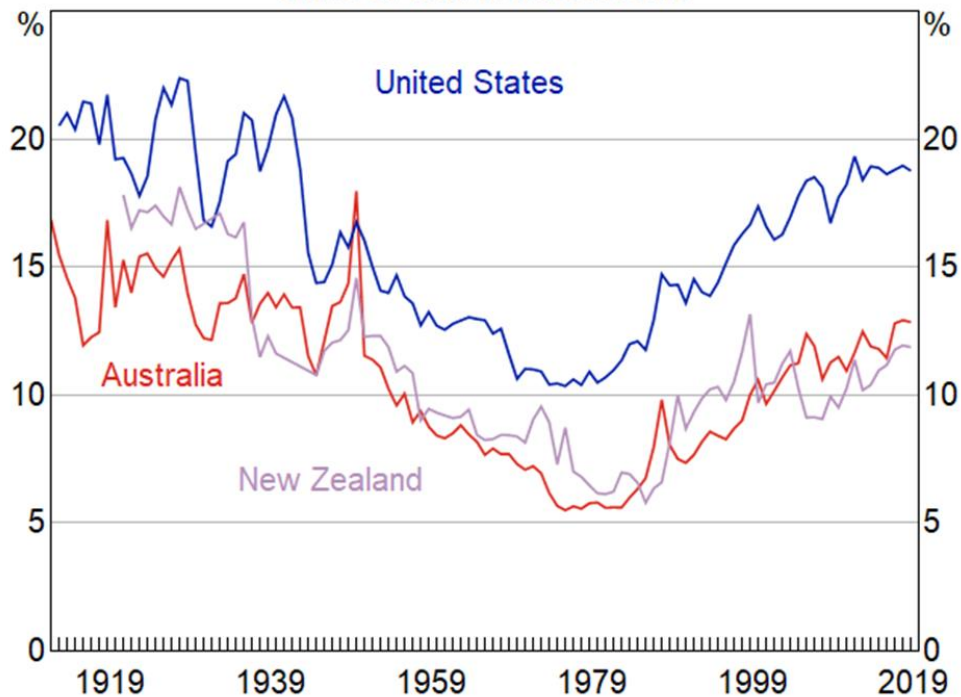
Income Inequality and Interest Rates

Sample period: 1921-2015

Sources: Jorda-Schularick-Taylor Macrohistory Database; World
Inequality Database

Income of Top 1% of Earners*
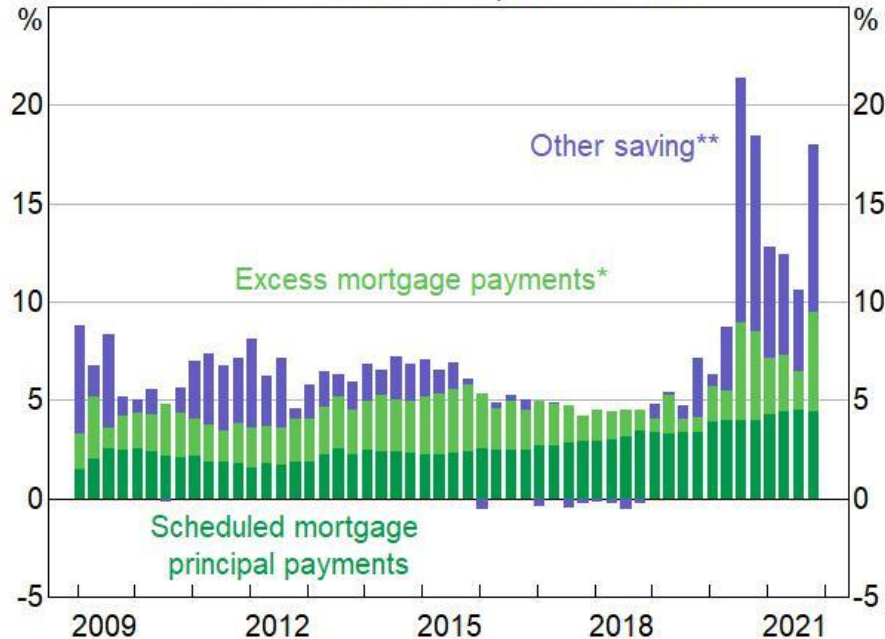### Share of total taxable income

* Based on tax statistics
Source: World Inequality Database

The aggregate household saving rate masks a gradual increase in mortgage prepayments
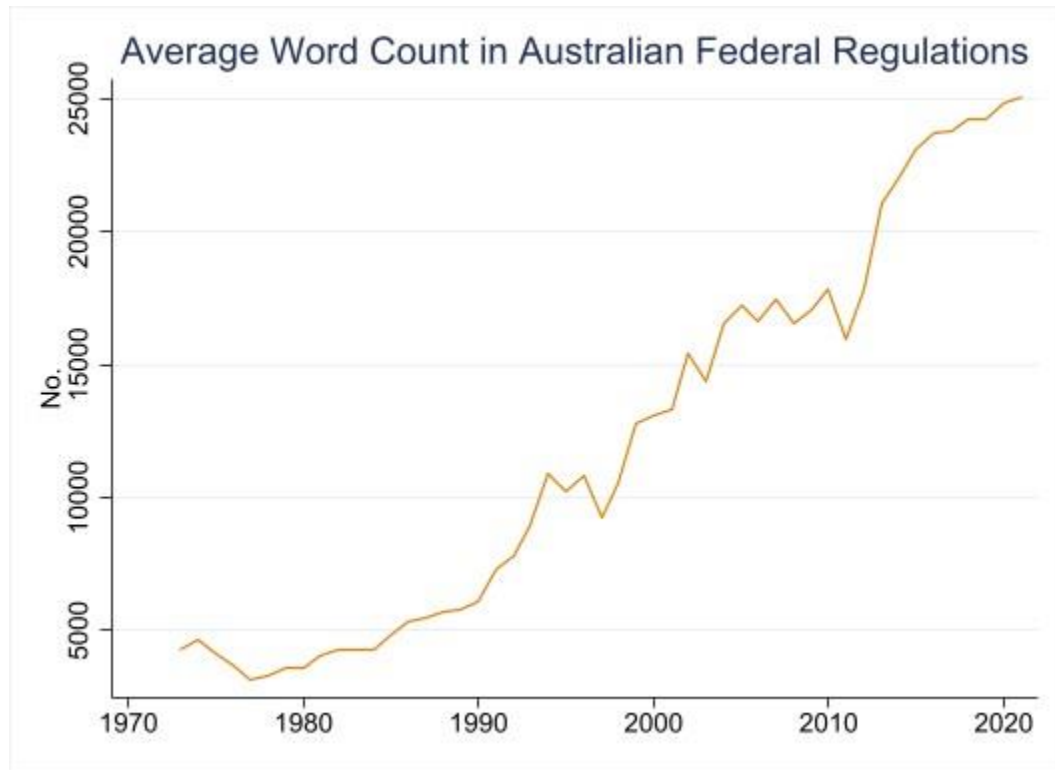

Household Saving Ratio
Share of household disposable income

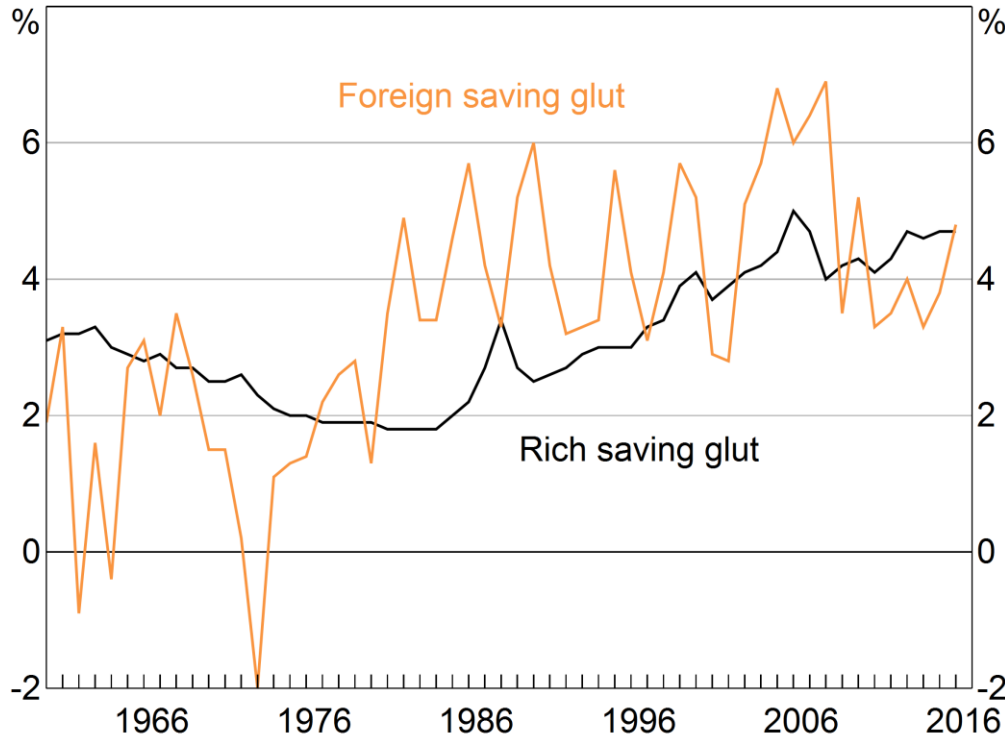* Sum of net flows into redraw and offset accounts
** Net of depreciation
Sources: ABS; APRA; RBA

Average Word Count in Australian Federal Regulations

The rich and foreign saving glut in Australia

Australia - Foreign and Rich Saving Gluts
Share of national income

Sources: ABS; Author's calculations; WID