

[Transmission of Monetary Policy with Heterogeneity in Household Portfolios](#)

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At least since Tobin (1969) it is well known that a satisfactory understanding of the monetary transmission mechanism has to go beyond consumption and include household portfolio balances. Changes in the interest rate affect both the intertemporal substitution of consumption and the portfolio composition between liquid nominal claims like government bonds and illiquid real assets like capital. Demand for these different assets translates differently into demand for goods. An increase in the interest rate translates into a shortfall of spending only in so far as higher savings do not increase investment one-for-one.

Importantly, households differ enormously in their wealth and portfolio composition. The fraction of savings going into real assets increases in wealth. Therefore, monetary transmission depends on both the distribution of the marginal propensities to consume (MPC) and, via households' portfolio choices, the marginal propensities to invest (MPI), which together constitute a household's marginal propensity to spend an additional dollar on goods.

This paper assesses the importance of heterogeneity in propensities to consume and invest for the transmission mechanism of monetary policy in the context of a Heterogeneous Agent New Keynesian (HANK) model with asset-market incompleteness, idiosyncratic income risk, and sticky prices. The key feature of the model is to allow for portfolio choice between liquid and illiquid assets in a business-cycle framework. The illiquid asset is real capital. It can only be traded with a certain probability each period but pays a higher return than the liquid asset, which comprises nominal government and household debt and can be traded without frictions. These characteristics enable the model to endogenously generate the distribution of portfolio shares and marginal propensities to consume across households as documented for the United States.

I find that heterogeneity in household portfolios matters for the aggregate effects and the transmission mechanism of monetary policy. It does so via two channels: 1) On average, MPCs are higher and MPIs lower in comparison to the representative agent version of the model because a sizable fraction of households are liquidity constrained. This reduces the elasticity of investment to monetary shocks, while it increases the elasticity of consumption. 2) Heterogeneity in MPCs and MPIs interacts with the redistributive consequences of monetary policy and amplifies this change in elasticities. The transmission mechanism largely goes through changes in income and redistribution, while the direct effect of the interest rate is small.