

Fragile New Economy:

Intangible Capital, Corporate Savings Glut, and Financial Instability

A Brief Summary

Link to the full paper: https://yeli-macrofinance.com/fragile_new_economy.pdf

Studies on money demand focus on households rather than firms, guided by the notion that households save while firms borrow. However, in recent decades, the nonfinancial corporate sector in the U.S. turned from a net borrower to a net saver (Quadrini, 2017). Unlike households whose savings are diversified across assets with different risk and liquidity attributes, firms mainly hold safe and liquid assets (cash substitutes). The root of firms' money demand is financial constraint. Holding cash would not be necessary if, whenever in need of cash, firms were able to freely resort to external financing. Under financial constraints, firms must hold liquidity internally. To explain the rising money demand of nonfinancial firms, it is intuitive to consider what leads to financial constraints in the production sector.

In this paper, I consider the rise of intangible capital in the U.S. economy and its implications on money demand. Intangibles cannot serve as collateral, so, as firms increasingly rely on them in production, financial constraints tighten, which in turn incentivize firms to hold more cash. The “cash and cash equivalents” that firms hold are mostly financial institutions' liabilities.

The innovation of my paper is to take an equilibrium approach that emphasizes both the demand for money and the endogenous supply. As the rise of intangibles drives up firms' incentive to hold money, interest rates offered by these assets decline, allowing financial intermediaries to borrow at low costs. The cheap leverage in turn allows financial intermediaries to drive up the prices of collateral assets that back their issuance of monetary liabilities. My paper develops a dynamic (continuous-time) model that captures this mechanism and provides empirical evidence. It shows that the transition towards an intangible-intensive economy leads to several secular trends, such as the rising corporate savings, declining interest rates in the money markets, debt-fueled growth of the financial sector, and rising valuation of collateral assets.

Moreover, by connecting these secular trends in the run-up to the Global Financial Crisis, my model reveals a new source of financial instability. Corporate savings are procyclical. During booms, firms generate earnings and increase savings. Their purchase of debts issued by the financial sector pushes down the debt costs of financial intermediaries; in contrast, households do not benefit because their debts are not deemed money-like. The funding cost advantage makes financial intermediaries the natural buyers of collateral assets.¹ The longer a boom lasts, the wider the funding-cost wedge is between financial intermediaries and households. When a negative shock hits the financial sector, forcing it to shrink balance sheets, the reallocation of assets to the household sector that faces higher funding costs and higher required return causes asset prices to

¹ In He and Krishnamurthy (2013), the notion that financial intermediaries are the natural buyer of assets is reflected in the assumption that only intermediaries hold risky assets. In Brunnermeier and Sannikov (2014), the financial sector is the natural buyer of assets because asset productivity is higher when held by intermediaries. My model differs in the reason why intermediaries are the natural buyer of assets: their funding costs are lower than the rest of the economy.

decline sharply. Therefore, the model predicts that the longer a boom lasts, the more severe the next crisis will be.

The development of financial markets and institutions has a profound impact on the industrial structure (Rajan and Zingales, 1998). My paper demonstrates that the reverse is also true: the evolution of industrial structure shapes the financial system and can cause financial instability.

References

- Brunnermeier, M. K. and Y. Sannikov (2014). A macroeconomic model with a financial sector. *The American Economic Review* 104(2), 379-421.
- He, Z. and A. Krishnamurthy (2013). Intermediary asset pricing. *The American Economic Review* 103(2), 732-770.
- Quadrini, V. (2017). Bank liabilities channel. *The Journal of Monetary Economics* 89, 25-44.
- Rajan, R. G. and L. Zingales (1998). Financial dependence and growth. *The American Economic Review* 88(3), 559-586.