Essay 1: Does macro-asset pricing matter for corporate finance?

In an asset-pricing model calibrated to match the standard asset pricing empirical properties—in particular, the time-variation in the equity premium—we calculate the welfare (value) implications of sub-optimal capital budgeting decisions. Specifically, we calculate that an investment policy that ignores the time-variation in the equity premium, such as would occur with a cost of capital following the CAPM, incurs a 16% welfare loss. We also document the implications for a firm’s asset returns in this context.

Essay 2: Debt maturity choice and firms’ investment

This study revisits the relation between firms’ choice of debt maturity and investment in a dynamic world. Prior research suggests that financing with short-term debt encourages investment. In contrast, we establish that short-term debt can reduce investment incentives because firms are more exposed to default risk from frequent debt rollovers. Long-term debt, however, is more subject to illiquidity costs, so firms find an optimal maturity by balancing the opposing forces. For an average firm, the agency cost from using debt is 0.61% of firm value. This suggests that previous studies overestimate the agency cost by ignoring firms’ flexibility to choose maturity. We also measure firm-specific debt overhang costs from likelihood-based structural estimation. The cross-sectional average of the cost is 9.53%, which is significantly larger than the cost for the average firm.

Essay 3: Do corporate investment respond to time-varying risk? Empirical evidence

We empirically test whether firms’ investment decisions take time-varying risk into account. We construct firm-specific discount rates implicit in option prices. Individual equity options and historical equity returns are used to infer the joint distribution of the pricing kernel and equity return, which determines the risk premium of the equity. We will test whether the option-implied discount rates and firms’ investment are negatively associated, as theory predicts.