

The Paul Woolley Centre for the Study of Capital Market Dysfunctionalities

Research agenda

Research at The Paul Woolley Centre aims at understanding the workings of capital markets and the social efficiency of allocations these markets achieve. The research departs from the Arrow-Debreu view of frictionless markets, and emphasizes the role of financial institutions (e.g., investment banks, mutual, hedge, and pension funds) in influencing prices and allocations. The main research themes are:

- **Contracts and organizational structure:** A significant fraction of wealth is managed not by the households who own it, but by professional asset managers. By investing through managers, households expect to trade more cheaply and to benefit from managers' superior expertise. At the same time, the separation between ownership and control generates an agency problem: what ensures that managers act in households' best interests? Agency problems between investors and managers have been studied extensively in corporate finance, in the context of industrial firms. But what are the implications of agency for financial firms and markets? For example, what contracts should govern the relationship between mutual-fund investors and managers? On what metrics should managers be compensated, and what constraints should be imposed on them? How do contracts influence managers' investment policies? To what extent are policies influenced by other incentives such as managers' career concerns? Why does the fund-management industry involve many different organizational structures, such as mutual funds and hedge funds? Is one structure superior? Does the relative desirability of organizational structures change with market conditions?
- **Market frictions and asset prices:** Much asset-pricing research assumes that markets are frictionless and households can trade costlessly. In practice, however, trading involves frictions such as asymmetric information and costs to enter markets. Because of frictions, prices can deviate from fundamentals, and markets can fail to be perfectly liquid. Financial institutions often arise as a response to frictions: for example, households can invest through professional managers because they expect to trade more cheaply and to benefit from managers' superior expertise. But investing through managers can give rise to new frictions arising from the agency problem.

Indeed, contracts can impose constraints on managers (e.g., no short sales), base managers' compensation on market benchmarks, and allow investors to withdraw funds on short notice. Such contractual provisions can reduce managers' ability to bring prices close to fundamentals. For example, a manager believing that the market is overvalued might be prevented from taking a short position, and might even prefer a long position so not to fall behind market benchmarks. How do frictions such as asymmetric information, market-entry costs, or agency, impact the informational efficiency of prices? What are the implications of frictions for market liquidity and for phenomena such as excess volatility or contagion? How do the effects depend on the size and structure of financial institutions? For example, do hedge funds, which face different constraints than mutual funds, change the price dynamics in the markets in which they operate?

- **Allocative efficiency and the macro-economy:** Market frictions can affect not only prices, but also the efficiency of market allocations. For example, if frictions render markets excessively volatile or illiquid, this can increase the risk to investors. Moreover, if prices deviate from fundamentals, this can generate misallocations of capital in the wider economy, with too much capital being allocated to overpriced sectors. In the Arrow-Debreu world, markets achieve Pareto-optimal allocations. Optimality fails, however, in the presence of frictions. What inefficiencies do frictions generate, how important are these, and how can they be measured? In what ways can actions that are optimal from individual investors' viewpoint be collectively suboptimal? And while financial institutions often arise in response to frictions, how important are the frictions that they themselves generate? Is the size of the financial sector (the biggest industry sector globally) commensurate to the services the sector provides? How much does the financial sector contribute to economic growth, and what should the sector's optimal size be?
- **Policy implications:** Can regulatory policies mitigate market inefficiencies? For example, if inefficiencies are generated by the response of asset managers to contractual restrictions, can changes in contracts generate Pareto-improvements? Alternatively, can the creation of new financial assets increase efficiency by completing markets and reducing investors' need to trade? Can GDP bonds perform such a role, and what are the private incentives to create such assets?