Research statement

My research agenda is concerned with core questions of modern macroeconomics: productivity growth, firm dynamics, market power, and the causal evaluation of targeted public policy. Why have many advanced economies failed to translate technological progress into sustained broad-based growth? My work is guided by economic theory and deep empirical analysis using novel tools and data (e.g. the UK Longitudinal Business Database; text from policy announcements). I have a clear focus on policy relevance, informed by my experience as an economist in a research-focused team in government. My projects broadly fall into two categories: **market power and scale** (documenting evidence) and **policy evaluation** (causally identifying impacts).

Market power and scale

From a long-run perspective, productivity growth is the main driver of improvements in living standards. It generates increased wages, more opportunities for employment and raises tax revenue for governments. The UK has experienced low productivity growth for almost two decades. Proximate causes include low investment and the slow diffusion of new technologies. My research documents the shifting competitive landscape and firm dynamics that contribute to this problem, offering insights into the incentives and constraints facing firms.

Market power may arise in both product and labour markets. Estimating market power is challenging, confounded by unobservables, and I have a strong overview of the frontier methods. In particular, estimating markups involves making a variety of choices which will materially affect the estimates. I have learned the robustness of certain decisions and the sensitivity to others. My contributions to this literature include two reports on the UK (CMA 2024a; CMA 2024b) which highlight several important facts and trends over the last two decades: (1) markups have risen slightly, but markdowns have stayed flat, (2) concentration in product and labour markets has remained unchanged, (3) although business dynamism has fallen, this does not seem to be driven by market power, (4) there is a substantial wage penalty for workers in more concentrated labour markets, but this penalty has shrunk. Currently I am extending this work to document market power in UK supply networks, where we find evidence of markup accumulation through supply chains, and that longer, more complex chains are associated with lower concentration.

Returns to scale govern firms' ability to grow and mediate the relationship between markups and profit shares. More concretely, rises in markups will not feed through to profit shares if returns to scale also rise. This may deter firm entry, and affect which firms benefit from new technologies. Many explanations of rising market power, such as intangible capital, superstar firms, IT-investment

and regulatory barriers can be interpreted through returns to scale, either by affecting fixed costs or variable costs. Savagar and Kariel (2025) develops a general equilibrium model with heterogeneous firms and imperfect competition, where returns to scale arise from labour-denominated overheads. We demonstrate that a flattening of the marginal cost curve (a rise in the 'span of control') can jointly explain a rise in returns to scale and a productivity slowdown in the UK. The mechanism is that flatter marginal costs weaken firm selection, allowing low-productivity firms to survive. We are revising this paper for a journal revision, incorporating endogenous heterogeneous markups following Kimball (1995) to strengthen the theoretical channel.

Another paper disentangles scale, span and scope. Using the new UK LBD, we document the outsized role of multi-establishment firms (MEFs) as important drivers of aggregate productivity and employment growth, despite being a small share of businesses. Crucially, we show that MEFs have changed their method of growth, shifting relatively towards growth via *scale* (adding employment in existing establishments, the intensive margin) rather than *span* (creating new establishments, the establishment margin). This shift, accompanied by declining MEF dynamism, is clearly important when considering business dynamism in the UK. We construct a firm dynamics model with establishment creation and imperfect competition to rationalize this phenomenon.

Policy evaluation

The second, complementary strand of my research agenda is dedicated to causal evaluation of government policy, leveraging frontier methods in causal inference and unique data to provide evidence for effective policymaking.

Environmental policy has been widely implemented to reduce greenhouse gas emissions. However, they may have wider economic implications which can be important. My job market paper analyses the various margins of economic adjustment in response to London's Ultra Low Emission Zone (ULEZ). Guided by theory, we investigate this tax on highly polluting vehicles by building a model of location and commuting behavior which highlights four important margins of adjustment: vehicle purchasing, commuting mode, firm location, and residential location. Combining multiple data sources, we use event study and regression discontinuity methods, exploiting the randomness of the policy borders and differential exposure to estimate key elasticities. I plan to build on this initial paper by conducting a meta-analysis of other low emission zones. In addition, I intend to trace the impact of this tax on the second-hand market for highly polluting vehicles and the spatial distribution of pollution activity.

Policy announcements affect how firms, markets and households interpret policy changes, and

have been shown to affect behaviour (McMahon 2024). This research agenda applies text analysis methods to a web-scraped dataset of over 2,000 UK merger cases. There are two projects in their early stages. Schneebacher, Kariel, and McWatters (2025) aims to measure the communication channel of competition policy and its effect on market outcomes. By integrating text data with high-frequency stock price information, we run event studies to investigate the response of directly affected firms and their rivals, to uncover whether information contained in the announcements has measurable market value. The competition authority can reduce or raise policy uncertainty with the language embedded in its announcements, in terms of frequency of publications, clarity of communication and consistency of message. Uncertainty in turn matters for many economic outcomes, including investment, innovation and firm growth.

The second paper is concerned with the various channels of influence on policymakers; academics, powerful incumbents, political preferences and international precedent. We often believe that policymaking is grounded in evidence, but other factors almost certainly play a role. We study this in a competition setting, which is highly technocratic, rules-based, and has substantial economy-wide effects. We investigate how and why competition authorities change their stance, and whether influences are ultimately beneficial or detrimental.

Public procurement plays a critical role in providing government services, promoting transparency, ensuring value-for-money and supporting small businesses. It is more than just government purchases – it is a large economic force (15% of UK GDP) that shapes the economy. However, we know remarkably little how these markets function. The first strand of this research agenda aims to investigate the market structure, competitive dynamics, price evolution and regional variation in UK public procurement. We will document concentration among procurement suppliers and analyse how often incumbents repeatedly win contracts. Furthermore, we will analyse the size and frequency of cost overruns, and whether this is affected by the procurement process itself. The second direction involves focusing on one market (healthcare - the largest sector for UK public procurement) to understand the role for countervailing market power in NHS contracts.