**Hassan Afrouzi**[*]—*Research Statement* September 21, 2025

I am a macroeconomist specializing in the aggregate implications of informational frictions, nominal rigidities, and market imperfections. In my research, I combine theoretical frameworks with empirical, experimental, or survey-based evidence to study how these micro-level frictions operate and interact to shape macroeconomic outcomes, particularly in the transmission of monetary policy to inflation and real activity.

More specifically, my research spans the following four interconnected themes. First, my work on models of rational inattention analyzes the macroeconomic impact of firms optimally allocating their limited attention [1, 7, 8]. Second, I use surveys and experiments to study how individuals [2, 11, 13, 20] and firms [7, 15] form and update their beliefs about economic conditions and to test theoretical work on models of inattention. Third, I study how market power and firm competition affect aggregate outcomes, with a particular emphasis on how competitive forces shape firms' information acquisition [1], market power over time [5], and size [6]. More broadly, the rest of my work studies the causes and effects of inflation, partly motivated by the questions raised by the recent surge of inflation worldwide. Within this theme, I study how inflation affects the labor market [9], and how the production structure of the economy [3, 4], lack of commitment [12], or political and economic factors leading to pressures on central banks [10] contribute to the transmission of monetary policy and inflation. In what follows, I provide a more detailed overview of my research agenda within each of these four themes.

***Rational Inattention and Its Macroeconomic Implications.*** The empirical evidence that economic expectations deviate from full-information rational expectations is overwhelming. My research on rational inattention models yields testable predictions on the nature of these deviations, how such beliefs feed into aggregates, and how data can identify their impact on macroeconomic outcomes such as inflation dynamics or monetary non-neutrality.

In *"Strategic Inattention, Inflation Dynamics and the Non-Neutrality of Money"* [1] (*Journal of Political Economy*, 2024), I introduce a new dynamic general equilibrium model with rational inattention and oligopolistic competition where firms acquire information about their competitors' beliefs. The model generates the novel prediction that firms with fewer competitors are less attentive to aggregate variables—a prediction that is supported by data from New Zealand firms. I then show that strategic inattention has significant implications for monetary non-neutrality in a calibrated version of the model: it amplifies monetary non-neutrality by up to 48% and shifts the output response disproportionately toward less competitive sectors. These findings provide a novel channel through which market concentration affects monetary policy transmission.

In *"Dynamic Rational Inattention and the Phillips Curve"* [8] (reject and resubmit, *American Economic Review*) Choongryul Yang and I make two contributions. First, we develop a solution method for dynamic rational inattention models, which we then implement in a computational package (`DRIPs.jl`) that has been used in published work and Ph.D. dissertations.[2] Second, we develop a model in which the slope of the Phillips curve varies with monetary policy and caution against policies that take this relationship as given, akin to those debated prior to 2021. The model predicts that under a hawkish policy, firms pay less attention to costs, respond less to nominal shocks, and the Phillips curve flattens. Under a dovish policy, the Phillips curve first flattens due to changes in information acquisition, then steepens as firms re-engage with a more volatile environment.

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[2]In addition to my own work in the *Journal of Political Economy* [1], several other papers, including Miao, Wu, and Young (2022) [18] (published in *Econometrica*), Song and Stern (2024) [19] (forthcoming in the *Review of Economic Studies*), Mackowiak and Wiederholt (2024a) [16] (forthcoming in *American Economic Journal: Macroeconomics*), Mackowiak and Wiederholt (2024b) [17] (forthcoming in *AER: Insights*), and Jurado (2023) [14] (published in the *Journal of Economic Theory*) have used the DRIPs software to solve dynamic rational inattention models. In addition, at least two papers from recent job market candidates in macroeconomics use DRIPs [21, 22].

In *"What Can Measured Beliefs Tell Us About Monetary Non-Neutrality?"* [7] (reject and resubmit, *American Economic Review*), Joel Flynn, Choongryul Yang, and I study how to measure monetary non-neutrality when firms have imperfect information. In a model with sticky prices and costly information, we derive analytical results for the output response to monetary shocks. We show that rationally inattentive firms optimally acquire information only when changing prices, creating a selection effect where price-changing firms are more informed than others. We also show that measured beliefs are not only sufficient to identify information costs but also necessary in models of imperfect information. Using survey data from New Zealand firms, we find that imperfect information doubles the real effects of monetary shocks compared to full-information benchmarks. Selection in information acquisition is also quantitatively important, as ignoring it overstates these effects by about 50%.

***Survey-based and Experimental Evidence on Beliefs.*** Understanding the mechanisms behind expectation formation requires identifying data-generating processes, agents' information sets, and their updating rules—factors that are challenging to disentangle with traditional datasets on expectations. My work with surveys and controlled experiments aims to isolate particular mechanisms of interest by controlling each of these elements.

In "*Overreaction in Expectations: Evidence and Theory*" [13] (*Quarterly Journal of Economics*, 2023), we use large-scale randomized experiments to document systematic biases in how individuals forecast stable AR(1) stochastic processes. We document three key facts: forecasts display significant overreaction to recent observations, with stronger overreaction for less persistent processes and longer forecast horizons. After showing how alternative models fail to explain these facts, we introduce a tractable model where costly recall of past information causes agents to overweight recent observations when estimating the long-run mean. This provides a unified framework for understanding expectation formation across different settings and time horizons.

In *"Tell Me Something I Don't Already Know: Learning in Low and High-Inflation Settings"* [20] (*Econometrica*, forthcoming), we study how the economic environment affects attention to inflation through a collection of randomized controlled trials across different countries and time periods. Using information provision experiments during the recent global inflation, we show that as inflation rose in advanced economies, economic agents responded less to information treatments. Using a rational inattention model to interpret our empirical findings, we identify mechanisms that could be driving these RCT findings, and find that they are most consistent with higher volatility or greater availability of information in periods of high inflation.

In "*Inflation Targeting Does Not Anchor Inflation Expectations*" [15] (*Brookings Papers on Economic Activity*, 2015), we use a novel survey of firm managers in New Zealand to show that despite 25 years of inflation targeting, managers displayed little anchoring of inflation expectations. Their forecasts reflected high levels of uncertainty and were extremely dispersed, even at long-run horizons. Most managers were unaware of the central bank's objectives and were poorly informed about recent inflation. These findings raised important questions about the effectiveness of inflation targeting and central bank communication strategies in managing firms' expectations, and partly contributed to the launch of the rapidly growing literature on how firms' expectations are formed.

My recent work on "*Inflation Preferences*" [11] (joint with Alexander Dietrich, Kristian Myrseth, Romanos Priftis, and Raphael Schoenle) explores how the public's preferred level of inflation relates to their understanding of monetary policy and economic theory as well as their socioeconomic characteristics. Using novel survey evidence, we document that U.S. consumers on average prefer an inflation rate of 0%, substantially below the Federal Reserve's 2% target. Then, through randomized information provision, we provide causal evidence that households' dislike of inflation is related to their perception of its real costs in terms of their earnings.

Finally, in "*Is It the Message or the Messenger? Examining Immigration Beliefs*" [2] (*Journal of Political Economy*

*Microeconomics*, 2024), Carolina Arteaga, Emily Weisburst, and I use experimental methods to decompose how different sources of information affect belief formation. Through a large-scale experiment about immigration beliefs, we show that the identity of political leaders influences beliefs beyond the content of their messages *only* when they deliver unanticipated messages to individuals in their own party. The findings demonstrate how the credibility and identity of information sources interact with message content to shape beliefs.

***Market Power and Market Concentration.*** Understanding how market power shapes aggregate outcomes has become increasingly important as market concentration has risen in recent decades. My work in this area examines how competition affects firms' decisions and, through those decisions, aggregate dynamics.

In "*Concentration, Market Power, and Misallocation: The Role of Endogenous Customer Acquisition*" [6] (revise and resubmit, *Econometrica*), Andres Drenik, Ryan Kim, and I investigate how different margins of market share relate to firms' market power. Using merged microdata on producers and consumers, we document that a firm's market share is mainly driven by its number of customers, while its price-cost markup is associated only with its average sales per customer. This finding challenges standard macroeconomic models where market share and markups are directly linked through preferences. We develop a new model reflecting this empirical evidence and the endogenous nature of customer acquisition. When calibrated, the model predicts substantially higher markup dispersion than conventional models, suggesting greater efficiency losses from misallocation. Our analysis reveals that compared to the efficient allocation, the equilibrium aggregate TFP and output are 10.8% and 14% lower, respectively, highlighting significant welfare costs from customer misallocation.

In "*Endogenous Firm Competition and Cyclicality of Markups*" [5] (*Review of Economics and Statistics*, 2024), Luigi Caloi and I show that the cyclicality of output growth is a sufficient predictor of the cyclicality of markups in models that micro-found variable markups through dynamic trade-offs. We test the predictions of these models using Compustat data in the U.S. and survey data on firms' expectations from New Zealand, finding evidence supporting implicit collusion mechanisms. Our calibrated general equilibrium model reveals that the degree of the hump-shaped response in output is crucial for determining the aggregate markup cyclicality.

***Inflation and Transmission of Monetary Policy.*** The recent period of high inflation has renewed interest in fundamental questions about inflation dynamics and the transmission of monetary policy. How does inflation interact with and affect labor market dynamics? How does central bank credibility affect inflation outcomes with emerging structural changes and political pressures around the world? How do production networks interact with monetary policy in determining the propagation of sectoral shocks? My research in this area provides new theoretical models and empirical evidence on these channels of monetary policy transmission.

In "*A Theory of How Workers Keep Up with Inflation,*" [9] (revise and resubmit, *Quarterly Journal of Economics*), Andres Blanco, Andres Drenik, Erik Hurst, and I study how inflation affects the labor market. After the rise in inflation in 2021, the vacancy-to-unemployment ratio in the U.S. labor market reached historically high levels without any meaningful changes in unemployment, i.e., a shift in the Beveridge curve. This observation led to the speculation that inflation itself was due to the hot labor market dynamics after the pandemic. Our paper starts with the observation that real wages have remained consistently below their pre-inflation trends, implying that the hot labor market cannot be the source of inflation. We then show that inflation can jointly explain the high vacancy-to-unemployment ratio with declining real wages in a model with labor search and nominal wage stickiness. Inflation erodes real wages and leads to workers searching more on the job. This raises the value of vacancies for firms and increases the vacancy-to-unemployment ratio, ultimately because real wages are too low. We conclude the paper by showing that the recent surge in inflation has affected the labor market in a way that is

consistent with our model, and similar to the inflation spikes in the 1950s and the mid-1970s.

In "*Monetary Policy without Commitment*" [12] (revise and resubmit, *American Economic Review*), Marina Halac, Kenneth Rogoff, Pierre Yared, and I study how central bank credibility affects both long-run inflation and inflation dynamics. We analytically solve an optimal policy problem under lack of commitment in a fully nonlinear New Keynesian model, and show that long-run inflation increases following an unanticipated permanent increase in the labor wedge or decrease in the elasticity of substitution across varieties, with inflation overshooting in the transition. We find that small changes in these economic fundamentals can lead to large changes in inflation. These results provide a new perspective on the inflationary implications of central bank incentives and highlight the importance of nonlinearities in shaping inflation dynamics through misallocation.

In "*Changing Central Bank Pressures and Inflation*" [10] (*Brookings Papers on Economic Activity*, 2024), we present a simplified framework based on our work above for evaluating how economic and political factors generate pressures on the central bank that affect long-run inflation through the interaction of commitment problems and changes in the economic environment. Our work provides a fresh perspective on the forces that drove global inflation down over the past four decades and suggests that for inflation to remain low, central banks would need to resist and offset the global economic pressures that are pushing inflation upward.

In "*Inflation and GDP Dynamics in Production Networks: A Sufficient Statistics Approach*" [11], Saroj Bhattarai and I derive analytical solutions and sufficient statistics for inflation and GDP dynamics in multi-sector New Keynesian economies with input-output linkages. Our analysis reveals the precise way in which production linkages, price stickiness across different sectors, and arbitrary price stabilization rules on the part of monetary policy interact and influence inflation and GDP persistence in response to monetary and sectoral shocks. One of our main theoretical contributions is to provide a spectral perturbation result that sheds light on the exact nature of these interactions in shaping the first-order effects of production networks. We then measure our sufficient statistics for the U.S. economy and show that in addition to significantly amplifying monetary non-neutrality and inflation persistence, production networks also generate substantial heterogeneity in the responses of aggregate inflation and GDP to sectoral shocks which depend on sectors' "network-adjusted price stickiness."

In "*Relative-Price Changes as Aggregate Supply Shocks Revisited: Theory and Evidence*" [4] (*Journal of Monetary Economics*, 2024), Saroj Bhattarai, Edson Wu, and I examine the role of sectoral shocks in driving aggregate inflation. We provide theory and evidence that relative price shocks can cause aggregate inflation and act as aggregate supply shocks. Using exogenous oil price shocks as an instrument, we show that energy price increases have significant positive effects not only on headline inflation but also on U.S. core inflation while depressing real activity. Our theoretical framework demonstrates how production networks and heterogeneous price rigidity shape these effects and lead to inflationary episodes driven by relative prices even when monetary policy eliminates any slack in the economy. This research is particularly relevant for understanding post-COVID inflation dynamics and the role of sectoral price changes in driving aggregate inflation.

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