

# Research Statement

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My research interests lie in macroeconomics and span time series analysis, labor, monetary, and environmental economics. I am particularly interested in labor market reform in a dynamic and stochastic general equilibrium (DSGE) framework. I utilize data to employ both modern econometric techniques and structural estimation methods to answer research questions that are both academically interesting and policy-relevant. In this statement, I provide brief descriptions of my current research and future research agenda for the future. More insights into my work are available on my website [ogbeifunlawrence.com](http://ogbeifunlawrence.com).

In my job market paper, titled “Labor Market Reform and the Business Cycle,” I examine how labor market reform contributes to business cycle dynamics. I develop a real business cycle model in which labor market reform affects economic activity by improving employment matching efficiency and reducing vacancy posting costs. I then use shocks to a labor market freedom index (LMFI) to proxy for labor market reform in the United States and calibrate the model under different shock transmission channels to test the empirical relevance of these mechanisms. The impulse response shows that the positive net effect of the LMFI shock on vacancy rate from the structural model with both channels closely fits U.S. data in the VAR model. On the other hand, using OECD data, vacancy rate impulse response shows that both the panel VAR analysis and the disaggregated country-level analysis support the channels of shock transmission identified in the structural model.

In another of my paper, titled “Labor Market Reform and the Steady-state Dynamics,” I evaluate how labor market reform performs under different market conditions. Using a New Keynesian model with an environment characterized by frictions in the labor market, I investigate the effects of labor market reform, described by a permanent change in the labor market freedom index (LMFI), a proxy for reform. I show that a reform aimed at improving labor market flexibility has (un)intended consequences on macroeconomic variables. The main findings are threefold. First, the long-run implication of improving labor market flexibility depends on the policy’s channel. Second, wage rigidity only matters in the short run as it either lengthens or quickens the transition path. Third, firms tend to respond differently in the short run when reform is pre-announced.

Other work in progress focuses on re-examining the conclusions from Lucas’s (1980) study titled “Two Illustrations of the Quantity Theory of Money,” with several changes in mind. First, since the time of his investigation, many measurement problems associated with the Federal Reserve’s published data have become well-known (Barnett (1982), Barnett, Serleitis and Fisher (1992), Barnett (2011)), and superlative indexes of money—whether Divisia or Fisher-Ideal—have been suggested as alternatives that avoid them. Second, because the quantity theory is about long-run relationships between nominal magnitudes, it is not clear that a short-term interest rate, such as the 90-day T-bill rate, is the most appropriate interest rate to capture the expected inflation effects of a change in the rate of money growth. For this reason, the 10-year Treasury note is chosen in this study to replace it.

Third, at the time of its writing, work on filters to smooth economic time series had not begun in earnest. One of the first filters to gain wide acceptance and usage is that of Hodrick and Prescott (1997). Recently, however, Hamilton (2018) has identified several problems with the Hodrick-Prescott filter and suggested an alternative to it. Therefore, the current study will investigate the influence, if any, of the choice of filter on the results. Finally, because several studies since the original Lucas study have identified sources of bias in the CPI, this study will use the GDP deflator for personal consumption expenditures, measured by year-over-year changes in the GDP deflator index. The use of this computation is motivated to eliminate any seasonal effect that may be present in quarterly data. Also, by the nature of the monetary reaction function, policy responses to inflation are based on the evaluation of “overall” agents’ expected and actual behaviors. The CPI does not capture the aggregate behavior of all agents as it measures only changes in consumer prices. The preliminary results have highlighted that filtered data produce estimates that are larger than the unfiltered counterpart. Lucas’s proposition can only be established in the early sub-period when using simple-sum M2 growth. When I used other money measurements in the early subperiod, the filtering technique determined if Lucas’ relationships held.

I also have active research on financial friction. I intend to investigate and quantify the effect of racial-gender imbalances in access to financial markets on both entrepreneurship and the misallocation of productive inputs. I have been granted a confidential, restricted-access version of the Kauffman Firm Survey (KFS), a panel of nearly 5,000 nascent entrepreneurs in the U.S., covering 2004 and 2011. The survey includes information on the age, gender, race, marital status, education, and working/other start-up experience of up to 10 owners, for each firm. It also reports which owners actively manage their businesses, the geographical location, industry, wage bill, assets, revenues, and profits, along with data on different financing sources (debt and equity). This setting will allow me to examine if there is evidence of racial-gender differences in firms’ access to credit and the average product on inputs of production. Also, I hope that I can develop a model of entrepreneurial choice under financial frictions that features agents’ heterogeneity in wealth, productivity, gender and race. The model will be calibrated to the U.S. economy to show whether racial-gender gaps in credit access account for the bulk of racial-gender differences in the average product of capital.

In the long run, I see myself using advanced estimation methodologies to study topics

at the intersection of macro-labor, monetary and environmental economics. I hope that through a finer understanding of the underlying economic forces in my research, I can help inform sound policy decisions.