Research Statement

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I am an applied theorist and my research is centered on the intersection of International Macroeconomics, Income Inequality, and Political Economy. Specifically, I focus on foreign exchange stock-flow dynamics, banking and international finance, exchange rate behavior, and macroeconomic policy. I also explore the interplay among economic development, the distribution of income and wealth, and political conflict. A central theme of this work is the examination of how politics rooted in identity or group affiliation influence the quality of institutions, state capacity, income and wealth inequality, and overall economic performance. My work often connects theory with data to test and quantify theoretical channels, and I am particularly motivated by the real-world questions that arise when conventional theory fails to account for stylized facts.

Macro Policy and the Paradoxes of Plenty and Banking. I study how fiscal dominance, a phenomenon affecting the autonomy of central banks and the efficacy of monetary policy, contributes to the paradoxes of *plenty* and *banking*. The main goal is to explain why resource-rich economies often experience chronic foreign exchange shortages (the paradox of plenty), and why banks in low- and middle-income countries, despite being profitable with excess liquidity, offer fewer loans to firms (the paradox of banking).

The Finance Resource Curse. Recent evidence from low- and middle-income countries suggests that commodity price shocks result in the financial resource curse, characterized by reduced credit creation and loan-deposit ratios, increased excess bank liquidity, and higher interest rate spreads. Two related stylized facts are pre-mature deindustrialization due to commodity price shocks, and persistent non-borrowed and non-remunerated excess bank reserves. I account for these banking puzzles in *Fiscal Dominance and the Financial Resource Curse: The Paradoxes of Plenty and Banking (2022)*, which challenges the conventional explanation of oligopoly banking power. The oligopoly model has at least two shortcomings: (i) It explains only a subset of the facts, such as higher interest rate spreads, and (ii) The model does not provide an explanation for the necessary increase in bank power during commodity price shocks. In contrast, I show that fiscal dominance intensifies with commodity price shocks, leading to a higher trend growth of bank deposits and interest operating costs. As a defensive measure, banks hold more liquid assets and increase the interest rate spread, resulting in lower loan-deposit ratios. Consequently, banks appear more profitable and find themselves inundated with non-borrowed and non-remunerated bank reserves. Fiscal dominance also raises aggregate demand and accelerates the banks' share of consumer loans, contributing to an unstable boom in property prices. Overall, this research extends the discourse on the Dutch disease and the resource curse, highlighting the significant role of fiscal policy in destabilizing banking and financial systems. This is in contrast to standard models that explore the impact of capital inflows on the real exchange rate, the tradable sector and long-run productivity growth.

In ongoing work with Tarron Khemraj, *Fiscal Dominance, Banking and the Foreign Exchange Constraint*, we extend my earlier research on the finance resource curse. This work explores the paradox of

plenty or foreign exchange shortages noted earlier. The study shows that sound banking requires a stable diversification ratio between local and foreign assets. Therefore, in an environment of fiscal dominance, banks are compelled to accumulate more foreign assets as their local assets expand in response to the surge in aggregate demand. We show theoretically and empirically that the severity of the foreign exchange shortage in the private sector is causally related to the degree of fiscal dominance. In contrast to the conventional model that attributes the foreign exchange shortage to bank oligopoly power, our research reveals that banks have largely maintained a stable diversification ratio. The novelty of our study lies in the integration of foreign assets, banking, and fiscal dominance to explore foreign exchange stock-flow dynamics, departing from the traditional absorption and monetary approaches to the balance of payments.

In **forthcoming work**, fiscal dominance is explored as the result of a significant infrastructure gap and extreme income and wealth inequality. This paper introduces a simple model of deferred payment that allows the fiscal authority to gradually address these issues without triggering undesired inflation, real exchange rate appreciations, or unbalanced economic growth. **Future research** documents new evidence of the financial resource curse and constructs an index to quantitatively measure its effects.

Optimal Fiscal Policy and Debt Sustainability. Fiscal-oil dominance may contribute to a financial resource curse. Therefore, governments are advised to adhere to a version of the Domar debt sustainability rule: a primary surplus when the interest rate exceeds the growth rate ($r > g$), which is the expected long-run condition in a dynamically efficient economy. In *Throwing Darts and Missing the Bullseye: Fiscal and Debt Sustainability in Open Economies (2022)*, I establish the importance of stock-flow consistency for understanding debt sustainability since the standard debt indicators combine debt stock and GDP flow variables. I show that the Domar debt sustainability rule is only valid when the goods market flow equilibrium is omitted. This is so because the debt rule is derived from the government budget identity, which only accounts for debt stock dynamics. My stock-flow accounting demonstrates that the private sector debt stock and the external balance matter for the debt rule. Under plausible parameter values, a primary fiscal deficit is consistent with a stationary debt ratio even if $r > g$. I show that the *demand constraint* for public debt ensures the debt ratio does not explode. For example, the private sector must *dissave* in public sector bonds to repay debt obligations as the private sector debt share increases. In summary, my research expands the theoretical foundation that supports the feasibility of permanent fiscal deficits. This prompts a reassessment of optimal fiscal policies and the Tinbergen Rule, as a stock-flow consistent fiscal policy has the potential to achieve *both* full employment and debt stability.

Future investigations include estimating stock-flow consistent primary balances for developed and developing economies to inform forecasts and policy analyses.

To Dollarize or Not To Dollarize? On consideration of the political business cycle and weak institutions, even stock-flow consistent primary deficits are routinely violated. But dollarization has the advantage of committing to fiscal responsibility *ex ante* as governments lose their seigniorage power. However, there is no consensus in empirical and theoretical studies on its broader economic effects. Official dollarization attempts are limited, but financial dollarization, especially in small open economies with a history of inflation,

is more common. To inform the dollarization debate, I present new theory to better identify the relationship between dollarization and economic performance.

Financial Dollarization and Exchange Rate Behavior. In collaboration with Samuel Braithwaite and Tarron Khemraj, our research paper, *Financial Dollarisation and Exchange Rate Dynamics in Jamaica (2023)*, introduces and tests a novel theory of exchange rate determination in a financially dollarized economy. Our primary motivation is the empirical observation that the Jamaican-USD exchange rate exhibits a trend stationary depreciation instead of the expected random walk, a finding documented for the first time. The model emphasizes households' accumulation of dollar-deposits to hedge against business cycle and exchange rate risks, while firms prefer dollar-loans due to their exchange rate-adjusted cost efficiency. A key theoretical result is that dollar-deposits and dollar-loans serve as propagating and mean-reverting factors, respectively, contributing to the trend-stationary depreciation. We provide robust empirical evidence supporting this theoretical framework. This study has two key implications: (i) Asset substitution may compromise the shock-absorbing capacity of flexible exchange rates, and (ii) Financial dollarization has the potential to weaken the monetary transmission mechanism of the benchmark model due to the nexus between dollar-loans and the nominal exchange rate.

Dollarization and Economic Growth. In ongoing work, *A Theory of Dollarization and Economic Growth*, I develop a model to assess the long-term growth implications of dollarization compared to a monetarily sovereign economy with monetized fiscal deficits. The model is consistent with the stylized fact that monetized fiscal deficits raise the risk premium and interest rate on external debt. Additionally, a monetization shock increases the loan rate and prompts banks to accumulate foreign assets, thereby reducing capital accumulation and economic growth. The key finding is that dollarization mitigates the adverse effects associated with monetization and enhances the long-run growth rate. This research bears two implications for the empirical literature: (i) Empirical studies must estimate and utilize *long-run* growth rates instead of actual growth rates, as monetization introduces an upward bias in the latter, and (ii) The appropriate comparator group should consist of monetarily sovereign economies that *engage in monetization*, rather than a general comparison to non-dollarized economies.

The next stage of research includes: (i) Documenting new evidence of a trend stationary depreciation in financially dollarized economies, (ii) Providing new empirical estimates regarding the long-term growth effects of dollarization, and (iii) Developing new macro models to better identify how dollarization affects banking, income and wealth distribution, and the fiscal-monetary policy nexus.

Income Distribution. This line of research aims to establish and understand the new stylized facts of income distribution in emerging markets. Three articles focus on China, South Africa, Chile and Mexico. In joint work with Giorgos Gouzoulis, *Varieties of Functional Income Inequality in Latin America: Chile and Mexico Compared* (Socio-Economic Review 2022), we find that private debt and inadequate public welfare account for a significant contraction in Chile's wage share, while larger public welfare expenditures have stabilised the wage share in Mexico. These findings suggest that higher income inequality and a withering away of the state are not inevitable features of globalization.

In *The Rise of Income Inequality in Guyana*, I use data from the Global Consumption and Income Project to study income inequality in Guyana (Social & Economic Studies 2017). This is an interesting case to study because of its ethnic politics, resource-wealth and equilibrium of fiscal dominance. I document strong evidence of relatively high income inequality based on several indicators, but this work overlooks ethnic inequality. In subsequent work, *Income Inequality in Guyana: Class or Ethnicity? New Evidence from Survey Data* (World Development 2024), I address this gap by utilizing data from the Latin American Public Opinion Project (2006-2016) and the Guyana Labour Force Surveys (2017-2021). This study finds that class inequality exceeds ethnic inequality, a significant finding given the country's organised political patronage along ethnic lines. However, the ethnic income gaps are most pronounced in the top 10% of the income distribution. These differences do not align with ethnic population shares, indicating significant representational inequality. A key implication of this result is that ethnic politics may function as a tool for ethnic dominance of the top 10% of the income distribution.

Income Inequality and the Macroeconomy. My research on income inequality motivates two macro papers. In, *Growth-Distribution Trade-off in an Endogenous Growth Model: The Case of Dependent Economies (2024)*, I formally demonstrate that an economy's long-run wage share is constrained by the requirement of a sustainable balance of payments. Thus, extensive redistributive policies engender balance of payments crises. This explains, in part, the equilibrium of high inequality and the existence of a growth-distribution tradeoff in small open economies. In ongoing research, *Remembering Havelock Brewster: Extending the Wage-Productivity Theorem*, I develop a model of public sector wage determination in the context of the open economy and firms' market power. The model demonstrates that if public sector nominal wages grow in line with total factor productivity growth, only by accident are real wages constant, as the wage policy does not account for import inflation, the growth rate of firm-level mark-up and the loan rate. This finding warrants a significant rethink of the wage-productivity theorem, which informs **future theoretical work**.

Political Economy. Two published papers construct an alternative theoretical argument that economic structures fundamentally determine economic performance. Structural change is important because it relaxes the previously mentioned balance of payments constraint. The paper, *Geography, Economic Structures and Institutions: A Synthesis*' (Structural Change and Economic Dynamics 2019), shows how economic structures affect institutions, inequality, and political transitions. However, our understanding of structural change remains limited as governments struggle with managing these transformations. In *The Political Economy of Ethnic Income Inequality: Lessons from Guyana (2021)*, I model the political and economic competition between Indo-Guyanese and Afro-Guyanese. The study reveals that pro-ethnic voting leads to extreme class and ethnic inequality, consistent with the evidence noted earlier. Another feature of the model is its ability to explain the dynamics of state capacity for structural change. For example, a weak state emerges when the dominant ethnic group becomes a majoritarian tyrant, which lowers state autonomy and enforcement capacity. **In the future**, I plan to develop new models of ethnic and class regimes of accumulation, providing new insights for policy on reparations, wealth inequality, and state capabilities.