Research Statement

I am a macroeconomist with interests in Public Finance, International Trade, and Applied Econometrics. My research focuses on how governments, subject to political frictions, can use fiscal rules to manage public debt, achieve sustainable economic growth, and improve citizens' welfare. Additionally, I study how trade transmits shocks across developing countries and their macroeconomic implications for monetary policy. In my research I first use data to document empirical facts, and then I use theory by building macroeconomic models to address economic questions. I have three working papers and three work-in-progress.

1. Balanced Budget Rule and Economic Growth [Job Market Paper]
This paper studies the impact of a new Balanced Budget rule (BBR) on economic growth adopted in Switzerland's constitution in 2003. Its distinctive feature is that the government deficit limit is flexible depending on the comparison between real and potential GDP, unlike the traditional fixed 3% deficit limit in the European Union. First, using a synthetic control method, I document that from 2003 to 2018, the BBR adoption has been associated with an average annual growth rate of 0.95% in Switzerland. Second, I build an endogenous growth model with a shortsighted government making inefficient decisions. I find that by reducing public debt, the BBR tempers the "crowding-out effect of debt" and frees up resources for private investment in R&D. Additionally, by reducing the service of the debt, it frees up resources for public investment in R&D. These investments, in turn, foster economic growth. Third, the model calibrated to Switzerland shows that the long-term yearly growth effect of the new BBR is 1.27 basis points, which compounds to a 1% GDP gain after 10 years. Furthermore, compared to traditional BBRs, which reduce welfare, the new BBR increases it, providing a rationale for the lack of enforcement of traditional BBRs.

2. Trade and Shocks Transmission in a Regional Trade Agreement, *with Régis Kouassi*
Using an IV strategy, we document that productivity shocks namely climatic and political shocks in an origin country affect inflation in the destination country through trade in Africa. Second, we develop an international trade model à la Eaton and Kortum (2002) extended to include money to discuss how Regional Trade Agreements (RTA) can amplify the transmission of productivity shocks across countries. We use the model to explore how the African Continental Free Trade Agreement (AfCFTA), adopted in 2021, could affect countries' inflation and its implications for their monetary policy.

3. Reevaluating the Impact of Regional Trade Agreements in Africa
I revisit the effect of Regional Trade Agreements (RTAs) on African intra-trade, finding that they have significantly increased trade by 62 to 77 percent from 1995 to 2019. These figures are lower than most estimates in the literature. I address several issues related to estimating the effects of RTAs, namely the selection bias due to the prevalence of zeros in trade data, the staggered adoption feature of RTAs, and their heterogeneous effects across regions and over time. To deal with these issues, I apply a structural gravity model, a Pseudo Poisson Maximum Likelihood (PPML) method, and a heterogenous robust Difference-in-Differences estimator. The results also indicate that RTAs generally take between five and eight years to have a significant impact on trade.

4. WAEMU facing AfCFTA: Implications for Trade and Monetary Policy, *with Régis Kouassi*
he purpose of the AfCFTA is to reduce trade barriers for greater integration between African countries. WAEMU, having historically had its main trading partners outside Africa, will have to trade more within the continent. This paper identifies African countries with which WAEMU could increase its trade, and studies the implications of such an increase on macroeconomic stability, before proposing a monetary policy orientation to minimize the impact of external shocks. To do so, we develop a new approach to detect the trade expansion potential between two economies. This approach, applied to WAEMU countries using the Harmonized System's detailed four-digit product classification, over the period 1996 to 2016, reveals that South Africa, Egypt, Morocco, Nigeria, Tunisia, Kenya, and Ghana are the countries with the highest potential for trade expansion with WAEMU. With the AfCFTA, WAEMU could increase its imports by

more than 12% on average with each of the African partners listed above. This figure reaches 32% for South Africa, the first potential partner. Using a new Keynesian model in an open economy, calibrated to WAEMU, we simulate several trade integration scenarios, targeted at the partners identified above. We find that greater integration with these countries will increase the transmission of price and production shocks from African partners to WAEMU economy. BCEAO within a framework of an optimal monetary policy should, in addition to inflation, react more to variations in the effective nominal exchange rate. Based on these results, the paper makes some recommendations for trade and monetary policies.

5. Bridging Economies: Measuring Trade Potential Between Nations *with Régis Kouassi*
In this research paper

6. Transition to Renewables and Public Debt Sustainability
With Chaffa Lucien and Kodjo Koudakpo
In my third research paper entitled

7. Additional research project

7.1. Bureaucracy and Public Debt

7.2. Optimal Monetary Policy in a Monetary Union: The Case of a Large and a Small Member State

7.3. The cost of multiple currencies on trade: the case of Africa

Version of October 22, 2024 and updated version here, you can visit my Website here.