

As an International Economist, I study the connectivity of the global economy. I believe that events that happen in one country can have ripple effects on all the other countries of the world that are worth studying and quantifying. The questions I ask are “big”: What has the rise of China meant for world economic growth? What are the causes and consequences of economic integration? And how, in a world where peaceful interaction between nations is not a given, are the benefits of trade complemented or limited by concerns about national security and the potential for armed conflict?

Trade and Growth. My job market paper, “Feeding China’s Rise”, provides a quantitative exploration of the relationship between trade and growth, using China’s trade expansion between 1993 and 2011 as a rich illustration of how fundamental changes in one country can have spillover effects across the entire world economy.

To link “trade” with “growth”, I provide a *dynamic, multi-sector* model of world trade where capital accumulates endogenously over time (providing the dynamic component of the model) and where decisions to accumulate capital depend very specifically on sectoral-level changes in trade. These dynamic, sectoral-level interactions are both novel and appealing to study in this context. For the sake of comparison, the existing literature has focused its attention on the possibility that China’s dramatic increase in net exports in manufacturing sectors may have made other manufacturing-exporting countries worse off by eroding their terms of trade. The unique contribution I provide, then, is to also model how changes in sectoral-level trade can have additional implications for growth, via capital accumulation, by shifting the cost of investment and/or the return to capital.

Overall, I find that change in China’s sectoral trade patterns have generally incentivized capital increased capital accumulation in other countries, both through its increased exports of “capital goods” (which serve as key inputs for investment) and through its increased appetite for non-manufactured imports (which tend to be capital-intensive). Compared with the “static”, fixed-capital frameworks used in the current literature, the dynamic effects highlighted by this perspective thus deliver a richer set of possibilities for the gains from trade and, ultimately, large and positive long-run real income gains in China’s trade partners from China’s trade expansion.

Economic integration. My work in the area of economic integration bridges micro-level and macro-level concerns about the causes and consequences of trade policies. At the micro-level, “Firm Heterogeneity and Trade-Induced Layoffs” (EER, 2015, w/ Pinar Uysal and Yoto Yotov) studies the determinants of job losses due to trade liberalization through the lens of a model with heterogeneous firms, *a la* Melitz (2003).¹ Using a novel data set with verified observations of U.S. trade-induced layoffs, we broadly confirm a correspondence between firm-level layoff and the predictions of the theory. This finding is noteworthy given the prevailing practice in the literature of simulating the impact of trade on labor markets using the heterogeneous firms framework as a workhorse.

My other work on trade policies deals with how to correctly assess their macroeconomic impact. In published work, “On the Trade Diversion Effects of Free Trade Agreements” (EL, 2014, w/ Mian Dai and Yoto Yotov) studies whether (and how) free trade agreements (FTAs) divert trade away from nonmember countries. Interestingly, we confirm that FTAs signed during the 1990s have caused FTA-signing countries to reduce imports from FTA-signing non-members, but have not actually led to any trade diversion on the export-side.

1 Melitz, Marc J. "The impact of trade on intra-industry reallocations and aggregate industry productivity." *Econometrica* 71.6 (2003): 1695-1725.

Two other current projects, “Beyond Tariffs” and “Lessons from Twenty Years of Trade Integration”, also pursue this same theme. In “Beyond Tariffs”, I provide a close examination of industry-level changes in trade costs between North American countries after NAFTA, using theory-consistent gravity estimation as a guide. This exercise reveals a surprisingly large effect for NAFTA’s effects on Mexico’s exports to the U.S. and Canada, especially in light of the small magnitudes of the tariffs facing Mexico pre-NAFTA. In “Lessons from Twenty Years of Trade Integration” (w/ Scott Baier and Yoto Yotov), we extend the methodology from “Beyond Tariffs” to investigate broader questions concerning the heterogeneous effects of FTAs in a more general context. Specifically, we introduce two novel indices for explaining heterogeneity in FTA effects: a non-parametric, “inclusive” measure of ex ante trade frictions between countries and, drawing on the influential “terms of trade” theory of Bagwell and Staiger (1999), a simulated measure of each country’s “market power” over world prices.² Notably, we are able to use these indices not only to explain why some FTAs have larger effects than others, but also to shed light on the widely-differing effects we observe within the same agreement. Countries with more “market power”, for example, tend to see a larger increase in imports following an FTA than their partners, as would be in accordance with Bagwell and Staiger’s theory.

Trade and Conflict. My work to-date on trade and security concerns how trade shapes the strategic setting of security policies, which I have tended to approach from a game-theoretic perspective. “The Problem of Peace” (w/ Constantinos Syropoulos) examines, in a small-open economy setting, how the central presence of state institutions in civil conflicts may play a key role in explaining the emergence of a conflict. In our model, a corrupt “government” and an equally self-interested “rebel” rival compete for insecure resources by raising armies from a common labor population. We show that opening to trade can induce the government to favor conflict in this setting, even though conflict results in wasteful destruction of resources, because destruction can also have the perverse benefit of increasing the value it derives from its control of fiscal policies.

Two other ongoing projects, “Prudence and Predation” and “Political Distance and Trade” also explore this same theme of trade and conflict. In contrast to the “Problem of Peace”, both of these papers focus on how international conflicts have strategic as well as practical consequences for trade. In “Prudence and Predation” (with Michelle Garfinkel and Constantinos Syropoulos), we theorize how the possibility of a conflict in the future may not only limit the gains from trade, but may also lead to equilibria where one country refuses to trade in the present in order to preserve its military advantage in the future. In related empirical work, “Political Distance and Trade” (with Davin Chor and Lou Jing) examines causal effects between trade and conflict from the opposite point of view. Using a panel of post-Cold War trade flows, we show that changes in political alignment can reduce trade between countries with dissimilar ruling parties, but this effect is only present for pairs of countries with lingering tensions from a past war.

Other forthcoming projects. In addition, as I work on pushing these papers through to publication, there are several other new projects I am excited to develop further in the next year. In particular, these involve using disaggregated data to construct theory-consistent measures of the potential for trade creation between any pair of countries and, in complementary work, developing a generalized methodology for directly estimating the welfare gains from trade liberalization.

2 Bagwell, Kyle, and Robert W. Staiger. “An Economic Theory of GATT.” *The American Economic Review* 89.1 (1999): 215-248.