

Research Statement - 2020*

Foreign investment, trade, and migration in a de-globalizing world

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I am an international economist who genuinely believes in rigorous applied social science research aimed to improve our world. I enjoy pursuing theoretically-founded empirical research to address policy-relevant questions. Most of my efforts aim to build applied models of interconnected cross-border flows and estimate policy changes and shocks. However, I am a staunch advocate of interweaving with related disciplines (business and management) and a broader audience (policy-makers and students). Therefore, I delve into several other topics like social media, business ethics, financial sustainability, and corporate governance, which I find relevant and appealing. Moreover, these topics often provide new insights and fresh ideas that re-enforce my economics research.

Three objectives summarize my research agenda broadly:

- Developing context-specific tractable models for international trade, Foreign Direct Investment (FDI), and migration with many of the gravity literature's common elements.
- Moving forward on the empirical estimation of gravity models to guide policy-relevant questions.
- Advancing on corporate and management practices that enhance business performance and development.

Boiled down, the main goal I seek to achieve in my research agenda is to continue developing models and methods to advance the economics of disintegration into two areas. Firstly, a comprehensive analysis of foreign direct divestment. Secondly, understanding the role of migration and its interconnection with trade and investment.

This research project statement focuses on my completed work since 2016 and is organized into three broad research areas. The first two sections, 1) foreign direct investment & trade, and 2) migration, describe ongoing current research and provides a road-map for the 2021-22 and 2022-23 academic years. Finally,

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the third section includes miscellaneous business and finance research that are not easily shoehorned in any previous categories.

1 Foreign direct investment & trade

My objective in this area is study the primary conduits of globalization: FDI and trade. My interest in this topic dates back to my early work, which was predominantly empirical. I focused on two themes that inspired my later work: institutions (Paniagua & Sapena, 2014) and economic crises (Gil-Pareja, Llorca-Vivero & Paniagua, 2013). Constructing the dataset for these papers while learning gravity estimation methods has been instrumental for my career. In particular, implementing a panel dataset with the detailed firm-level FDI data was challenging (Paniagua, 2016).¹

1.1 Published work

As was much of all my work, the shared theme across many of this research is theoretically-founded policy design and evaluation. In my most recent papers summarized below, I either estimate the effect of a policy or develop models to assess policy changes related to FDI and trade. One highlight was the use of my research by the Asian Development Bank (ADB) during the negotiation on the accession of South Pacific States to the New York Convention.²

- “Does arbitration promote FDI?” *Journal of Law & Economics*, 2016. Myburgh and Paniagua (2016) is a cornerstone in my academic growth. Firstly, the paper allowed me to explore the theoretical scaffolds of FDI. Secondly, it allowed me to understand the structural estimation methods of gravity and translate them to FDI, which are now the profession’s norm.³ Thirdly, the fact that the paper was influential in policy-making motivated and convinced me that rigorous research can make a difference. It allowed me to interact closely with international institutions and policy-makers in developing countries like Fiji’s and PNG’s judiciary.⁴ These collaborations sparked an exciting avenue of research and policy advice aimed to developing standards for the economic assessment of international trade law reform.⁵ In sum, I learned to appreciate the relevance and stimulus of international interactions and collaborations.

Myburgh and Paniagua’s (2016) academic contribution capitalized on Berkowitz et al. (2006) work,

¹I use data from FDIMarkets, which is part of the Financial Times Ltd. group and is the official data source of greenfield data of the UNCTAD’s World Investment Report and the Economics Intelligence Unit.

²For details see <https://www.adb.org/news/events/second-south-pacific-international-arbitration-conference>

³The gravity literature pioneered by Anderson (1979) and Bergstrand (1985) is the workhorse of the studies in international economic flows.

⁴I have collaborated with developing banks (ADB and World Bank) and public trade-law institutions (UNCITRAL and UNIDROIT)

⁵For details see <https://unidroitfoundation.org/economic-assessment-of-law/>

who studied the effect of international arbitration on trade flows and concluded that international institutions acted as substitutes of dysfunctional national institutions. I extended this view to FDI with a theoretical model supported by a structural estimation. The empirical evidence exposes a relevant insight: the main effect of arbitration on FDI is increasing the volume of investment. The paper’s methodological improves the gravity quantile regression of Paniagua, Sapana & Figueredo (2015) with a structural approach to overcome known estimation biases. Gravity quantile regressions have increased in popularity since then. The realization of the role of international institutions that promote economic integration inspired subsequent papers.

- “Trade law and trade flows” *World Economy*, 2020. Gil-Pareja, Llorca-Vivero & Paniagua (2020) is the natural evolution of my work on trade law and institutions. I develop a model that innovates by presenting an array of international conventions (arbitration, mediation, and conciliation) and estimate their effect on trade with structural gravity. The estimates show that domestic trade law reform and international treaties positively affect trade. In this area, Carril-Caccia, Milgram & Paniagua (2019) provides a straight-forward empirical test of these ideas applied to institutions’ role in the development of Middle East and North African countries.
- “Is Energy market integration a green light for FDI?” *Energy Journal*, 2018. On a seemingly different topic, Costa-Campi, Paniagua & Trujillo-Baute (2018) focuses on domestic institutions’ substitution by looking at energy markets. The paper offers interesting contributions related to the effects of international vs. domestic market design. This research allowed me to shed light on the black box of the firm’s input factors from a theoretical perspective. Inspired by Bergstrand and Egger (2007), who added human (physical) capital to Markusen’s (2004) two-factor “knowledge-capital” model, Costa-Campi et al., (2018) derives gravity equations for within-firm factors like capital and energy. Since then, I have applied the idea of firm factor movements to approach several research questions, which I elaborate in the next section. In addition, Batalla, Paniagua & Trujillo-Baute (2019) builds on this idea and exploits a novel dataset on electricity trade to estimate the effect of the European Single Electricity Market on energy flows.

1.2 Current ongoing work

The exciting contributions in the area of structural gravity as summarized in Yotov et al. (2016), along with several vital aspects developed recently, e.g., Anderson et al. (2020), improved the methodology to estimate gravity equations and stimulated new research avenues. This methodology’s key advantages are: firstly, the correct identification of variables at the origin or destination countries individually; secondly, the

possibility to compute General Equilibrium (GE) effects, namely Gross Domestic Product (GDP) and prices. My research agenda is divided into three current projects related to each of these improvements, each of which involves several papers in this broad area.

- *Divide and Conquer*. Firstly, I'm actively involved in an exciting project that takes the first stab at the structural gravity model's regional decomposition. Larch, Paniagua & Yotov (2020) uses a new regional dataset from Spain to nest and estimate an international model of trade structure with sub-national regions. This approach offers new insights on the heterogeneous impact of trade agreements, border effects and allows us to quantify, for example, the impact of economic disintegration like independence movements or Brexit at a regional level.
- *Economic complexity and trade*. Secondly, I pursue several trade papers with a GE perspective with two approaches. On the one hand, empirical policy papers that quantify the trade-related effects on GDP, consumer and producer prices of commercial arbitration, corruption, and currency unions. On the other hand, applied theory papers that delve into pressing issues. Myro, Paniagua & Segarra (2020) looks into economic complexity to explain trade patterns, posing exciting questions about China's effects as a global player and policies like bringing back production to the US.
- *HQ Intangible Capital and FDI*. Thirdly, I am currently involved in a series of projects with my usual collaborators that take a fresh look at country-level determinants of FDI. In particular, Carril-Caccia, Milgram & Paniagua (2020) is novel in introducing intra-national FDI flows at the extensive and extensive margins to estimate the effect of terror violence on FDI flows. I also look into the effect of the spillover of intangible capital between foreign firms. An important activity related to FDI is the investment in regional Headquarters that provide managerial and financial services to other affiliates. I quantify the effect of the establishment of regional HQ in other firms within the same sector. Following the same philosophy, I revisit the effect of several policy-relevant antecedents like currency unions and institutions.

Lastly, I work with two graduate students in research related to higher education, regional investment promotion, and the link between trade and FDI. I take my advisory role seriously; still, I enjoy and find invigorating collaborating with them.

1.3 Future work: Foreign Direct Divestment

Most research in this area focused on firm entry in the context of an increasingly globalized world. The somewhat unexpected turn of events at a global scale, however, raises new questions on de-globalization.

For example: why do firms leave foreign markets or divest? From a theoretical perspective, firm exit is at the core of the seminal trade models since: "... new entrants bids up the real wage and forces the least productive firms to exit" (Melitz, 2003, p. 1716). However, this inherent part of globalization has evaded scholarly scrutiny, and only a handful of papers focus on firm leaving, rendering our understanding on why and how firms divest (and its effects) precarious.⁶

The objective of the research is twofold:

- On the theory side, I am to build a global, multi-sector, and multi-region model of direct foreign divestment (FDD) by capitalizing on cutting-edge research in the area of international trade and FDI. Standing on the shoulders of earlier modeling techniques, including my own contributions, I plan to advance further in the study of divestment flows with within-firm factors.
- On the data front, I plan to build a database to estimate all key parameters of the model and capture key regional and sector components. The knowledge frontier in this field clashes with the availability of databases that allow the correct identification of divestment at the regional and sector level. However, the data portal FDIMarkets recently covers new global data on relocations, which I can compliment with the Spanish administrative data on foreign divestment. I expect that such a database would become a public good that will generate significant additional benefits. Quality public data opens a path for countries better to understand their economies, design better economic policies, and debunk fake economic news.

Armed with a model that would guide an empirical exercise with detailed data, the plan is to shoot at exciting and policy-relevant questions. Are the determinants of FDD just the reverse of FDI? Do better institutions retain foreign investment. Are global FDD flows providing incentives that promote democratic and economic development? What is the role of migration, and especially return migration? Has the COVID-19 pandemic accelerated FDD? Additionally, the relationship between trade and FDD is an open question that would allow me to quantify the GE effects of divestment.

2 Migration

My second research objective is related to assessing the economic impact of social interactions. Migration and its related policies are currently caught in the crosshairs of political and academic spirited debates, including labor economists.⁷ As an international economist, my interest narrows down to the interrelationship of migration with other of cross-border flows., e.g., trade, involvement, jobs, and ideas. My academic interest

⁶For exceptions see for example, Borga et al. (2020); Javorcik and Poelhekke (2017).

⁷For example, the Card vs. Borjas debate on the effects of the flow of new arrivals on domestic wages.

in the role of job-driven migration started motivated by the great slap of the recent financial crisis. In several papers written before 2016 I studied the flow of jobs and ex-pat employees, significantly their role as “knowledge brokers” and the effect of economic crises. This earlier work encouraged me to look deeper into its mechanisms and me made reflect on relevance of migration’s rich diversity.

2.1 Published work

In the papers written since 2016 summarized below, I studied several channels by which migration affects international economics flows. The fact that two competitive research grants founded most of this work allowed me to improve several skills that I found to be crucial for successful research. As Principal Investigator, I manage the deadlines and budget of a team of senior and junior academics, and supervise the research outputs.

The completed work in this area is motivated by three facts:

- “Homeward bound FDI: Are migrants a bridge over troubled finance?” *Economic Modelling*, 2016. The first fact was established by Gould (1994): migration reduces information frictions associated with trade and FDI. Cuadros, Martín-Montaner & Paniagua (2016) tuned this idea to finance and credit access. Using similar models and empirical techniques as described in the section above, I show that migrants moderate the effects of banking crises on FDI flows.
- “Migration and FDI: The role of job skills” *International Review of Economics & Finance*, 2019. The second well-established fact is the relevance of migrant’s human capital: high-skilled migrants have a larger impact on economic flows (Docquier and Lodigiani, 2010). Cuadros, Martín-Montaner & Paniagua (2019) dissect the skills are really relevant in the migration-FDI link: job skills, particularly management abilities. The paper has been important for my progress as an academic economist in three ways. First, I faced a negative result that appeared disguised on several papers, but remained buried under the rug.⁸ I was challenged to stand by and explain exhaustively the results during the review process, encouraging me to support stubborn negative results in my editor or referee roles. Second, during the modeling process, I became fully convinced of the flexibility of three-factor models, in the spirit of my earlier work. Additionally, the paper estimates gravity at the sector level, which I later exploit in the ongoing work described below. Thirdly, several news outlets in the US featured my research, enforcing my conviction that rigorous work makes a difference. Overall, this paper stimulated me to pursue ambitious and policy-relevant research.

⁸Cuaadros et al., (2019) showed that decreasing the skilled share in the migrant stock had a negative impact on FDI flows.

- “Tourism and migration: Identifying the channels with gravity models” *Tourism Economics*, 2020. The third observation is that migration also spurs the flows of ideas and people. Santana-Gallego and Paniagua (2020) focus on the latter by identifying the channels by which migration affects tourism flows. In particular, the paper identifies three kinds of channels: information, cost, and visiting friends and relatives channel. The paper develops a theoretical model for tourism and migration that is novel in explicitly introducing multilateral resistance terms. The paper was instrumental for my future research since it allowed me to loosen ties with firm-oriented research, opening colorful possibilities and ideas.
- “Asylum seekers in OECD: In search of lost well-being” *Social Indicators Research*, 2020. Stretching this line of thought, I started looking at the root causes migration. The recent refugee crisis in Europe triggered my efforts into designing, advocating, and implementing policies that mitigate the humanitarian crisis and help prevent the deaths in the Mediterranean. Paniagua, Peiró-Palominio & Picazo-Tadeo (2020) is my modest contribution in this direction. The paper shows that differences in origin and destination countries’ well-being are relevant determinants of asylum flows. The paper combined the gravity model with indicators research and permitted me to explore and learn from the field of multidimensional indicators.

2.2 Current ongoing work

The ongoing work on migration is a natural extension of my completed work, but an accent on two relevant social issues: innovation and gender discrimination as central themes. Besides, I also work on several empirical and policy papers related to forced migration, food crises, violence, and institutions in this area.

- *Moving ideas across borders*. It is well-known that innovation fosters FDI (Feenstra and Romalis, 2014). Parallely, the literature that studies the link between migration and innovation is growing vibrantly⁹. Foley and Kerr (2013) closed the circle of migration, innovation, and FDI, exploring the relationship between ethnic innovation and US multinational firms’ activity abroad. Cuadros, Navas & Paniagua (2020) connects the dots between FDI, migration, and innovation to write my most autobiographical paper. The model formally describes my experience as a migrant engineer working in the research facilities of Lucent Technologies (Bell Labs) in Germany. My cultural heritage, American schooling, and engineer training allowed me to bridge the gap between US management, German technology, and clients in Spain and Latin America. I show that this mechanism is theoretically consistent and supported by data. The paper poses a data challenge that I overcome by merging firm-level patent, FDI, and migrant inventors datasets.

⁹See, for example, Doran and Yoon, 2020

- *Mind the gaps.* The idea for this second ongoing project in this area comes from a striking observation: Women represent roughly 40% of the migrants worldwide; however, only 13% of the migrants migrant managers are women. All men and women are created equal, and therefore, this gender gap in migration is a misallocation of talent, which feeds in economic growth (Hsieh et al., 2019). Carril-Caccia, Cuadros & Paniagua (2020) incorporates elements of the canonical models of resource misallocation and gender discrimination to build a model that delivers some sharp predictions on the gender gap’s effect among skilled migrants on FDI. I follow the approach in Cuadros et al. (2019) to empirically quantify the effect. The findings confirm my view of the relationship between social justice and economic prosperity.

2.3 Future work: The interconnectedness of trade, investment, and migration

Migration has a multifaceted effect on multiple cross-border flows, e.g., trade, innovation, FDI, and tourists. In my previous work, I developed models and applied state-of-the-art estimation techniques to quantify them. It is only natural now to push the research forwards in two directions.

- Firstly, to exploit the above-mentioned structural gravity GE analysis to quantify migration’s effect on trade, economic growth, and distributional effects for consumers and producers. This paper pretends to answer relevant policy questions and counterfactuals: what are the expected effects of constructing a wall on the US-Mexican border? What is the effect of limiting high-skilled migration? What are the effects of return migration?
- Secondly, to explore the link between migration and intangible foreign capital. The paper has a two-fold motivation. Firstly, a methodological improvement is motivated by the *interconnectedness* of trade, FDI, and migration, as described in Bergstrand et al. (2008). Their GE approach allows simultaneous predictions of bilateral economic flows. I plan to adapt this setup to a firm-level three-factor model that encompasses physical and intangible capital and labor. Then, take the predictions of the model to data with a simultaneous structural estimation. Secondly, making progress in understanding the role of migration in international production. With the model’s basic scaffold in place, the empirical strategy is to merge google searches and personal information of regional headquarters’ managers. The paper intends to open a wide range of policy-relevant insights on the specific migrant’s characteristics that foster ideas, capital, and jobs flow.

3 Miscellaneous: Business & Finance

Academic economists focus on policy and often bypass business and management advice. However, during my rich working practice before discovering my academic vocation, I realized that management decisions are also crucial. Reassuringly, scholarly evidence supports my personal experience (Bertrand and Schoar, 2003). Therefore, I also push a research agenda on business that includes practical insights for management. This strand of my research allows me to loosen the economics corset and breath somehow more freely. I find it intellectually challenging and appealing writing papers for a practitioner audience. My early work was well received by the academics profession in terms of citations and prizes, stimulating me to continue allocating efforts along this road.¹⁰

Social media in business is one of my most successful recurrent interests in this area, along with a growing interest on corporate governance and finance. Particularly, I looked into how social media activity anticipates foreign demand and partially inspired my proposed work on intangible capital. Other related work studies the use of social media within human teams, e.g., soccer players, engineers, and board members. In addition, I jumped into the corporate governance literature and studied how ownership and board structure affects firm's turnover. Lastly, the financial crisis led to a sovereign debt crisis in the European Monetary Area. In a series of papers, I developed a time-varying mean regression method to study how governments reacted to debt accumulation and spreads.

- “Crossing borders with social media: Online social networks and FDI” *European Management Journal*, 2017. The paper with Korzinsky and Mas-Tur shows that social media activity anticipates foreign demand and partially inspired my proposed work on intangible capital. Additionally, I had soccer players and engineers in the crosshairs of two papers that related professional performance and creativity with social media activity.
- “Corporate governance and financial performance” *Journal of Business Research*, 2018. I jumped into the corporate governance literature and studied how ownership and board structure affects firm's turnover.
- “Sovereign debt spreads in EMU: The time-varying role of fundamentals and market distrust” *Journal of Financial Stability*, 2017. The financial crisis led to a sovereign debt crisis in the European Monetary Area. In a series of papers, I developed a time-varying mean regression method to study how governments reacted to debt accumulation and spreads.

¹⁰My two papers with Sapena in 2014 won the best paper award in international conferences. “Business Performance and Social Media: Love or Hate?” *Business Horizons*, with more than 200 cites in Google Scholar, is featured in Wikipedia.

The current work in this area includes various papers that merge aspects of social media and corporate governance. In particular, this work uses LinkedIn to study the effects and determinants of corporate networking on social media. The research aims to provide new insights and fresh recommendations for corporate management.

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