Inaugural Lecture
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"Globalisation, De-Globalisation: how International Trade shapes the Economy and Impacts our Lives"

Let me start by expressing the pride and satisfaction I feel for having been named a Full Professor with the University of Surrey.

I joined in 2013 as a Senior Lecturer and here I am, 9 years later giving this inaugural lecture. Any accomplishments I might have had to deserve the promotion did not happen in a vacuum.

During all these years, I have been accompanied by a group of high-level scholars in diverse fields, which were also humanly encouraging and collaborative. I witnessed major transformations in the School and the University, some difficult times, but all in a constant drive to produce world-class, meaningful work with strong impact on both students and society at large. Every effort was made to provide faculty such as myself with the tools to achieve such goals.

I have received kind and warming support by my line managers among which I want to personally thank Steve Wood, head of SBS, and Taz Rajwani, head of the SIB department, for their support and trust and for having created such a wonderful and vibrant environment. Over the years I have been also supported by managers that left for pastures new, in particular Graham Miller and David Goss. All my thanks and gratitude to them.

Before I enter into the subject, I would like to mention that I have been always attracted to the idea that knowledge needs to be put into practice to service the idea of reaching a better world. Producing knowledge by the sake of it is fun but to some extent a half-cause. The ultimate goal for research is to improve the world, even if in the meantime we obtain the delightful and ego-centred satisfaction of understanding.

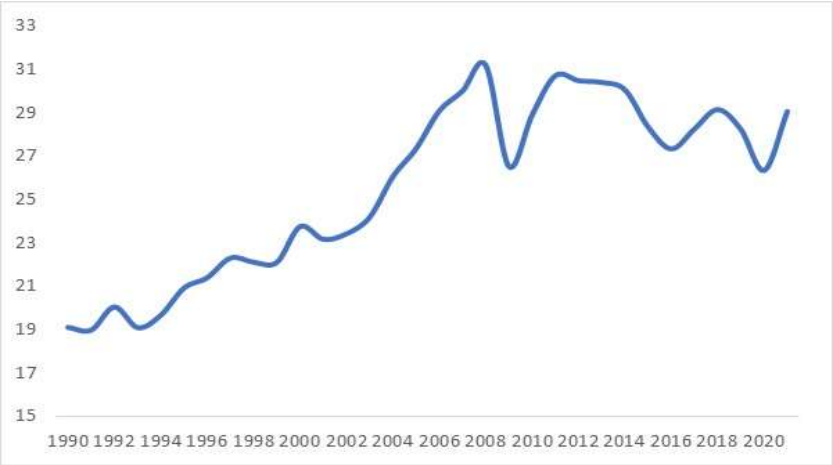
This explains my somehow unusual career spent in between academic research and policy institutions. The university of Surrey provided me with the ideal setup to carry both activities and to maximise the complementarities between them. I will mention some of the highlights of my policy contributions and the link to my academic and intellectual activity as I go along.

I will support my Lecture with graphs taken from my own research. Most of them I have taken directly from my Lecture slides for the International Trade modules, in order to convey also today the applied and practical spirit with which I approach my teaching.

The topic of today's lecture is, in line with the title of my Professorship, that of international trade. It is the field in which I have been lecturing on, researching and doing policy work on over the past 20 years.

The immediate question that arises is that of why devoting my professional life to the study of international trade and the economics of globalisation. As it is the case with most of my colleagues that are present today, my choice of subject has been strongly determined by my personal experiences and those of individuals around me.

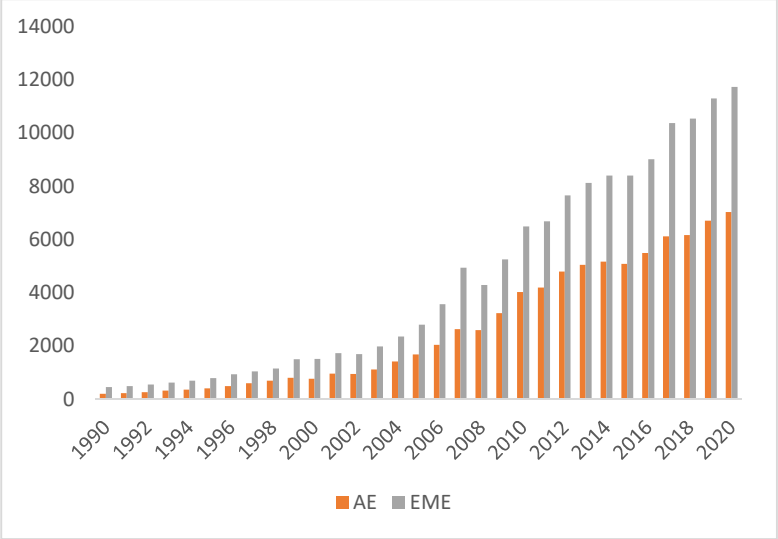
Figure 1: Ratio of World Exports of Goods and Services / World GDP 1990-2020



Source: World Bank Development Indicators

I engaged in the study of economics at the beginning of the 90s, a moment of profound changes in the world economy, characterized by deep and fast international trade integration, fuelled by unprecedented technological changes (for our young students: yes, there was a time when the internet did not exist) and based upon the determination in developed and emerging economies alike to erase borders through integration policies, notably illustrated by the creation of the WTO in 1995. Such evolution is depicted in Figures 1 and 2, which show the impressive growth of cross-border trade and Foreign Direct Investment since the 1990s.

Figure 2: Inward FDI stocks, 1980-2020. Million USD.
Advanced Economies (AE, gray bars) and Emerging Economies (EME, orange bars).



Source: UNCTAD

Furthermore, I grew up, studied and started my career as public servant Argentina, my origin country, at a time where the country strongly embraced globalisation and was even praised for being one of the most applied followers of what then was called the *Washington Consensus*. This was the name given to a set of policies based on the belief in global integration as the economic system more prone to prosperity, as supported and encouraged by Washington-based international organisations such as the World Bank and the IMF.

I could personally feel the benefits derived from transitioning from a close and isolated economy to one integrated into global markets, providing access to opportunities, goods, services and knowledge from around the world. For many at that time, the consensus over the benefits of international trade was so clear that a reversal to protectionism and the disintegration of the global economy seemed out of consideration.

As a matter of fact, an influential thinker had labelled that period (wrongly as we know now) as "the end of history", implying that the strong economic integration that had begun in the early 80s with the fall of the iron curtain and the integration of emerging economies into the multilateral trading system was the ultimate global economic and governance system, such that political evolution would simply stop there.

Fast-forward three decades and the picture looks stunningly different.

The Pandemic has shown some of the fragilities of the hyper-globalized system of production, first with the lack of access to medical supplies such as masks and other equipment, and then

with the global supply chain disruptions that still today affect the operations of businesses and feed the surge in inflation observed all across the globe.

The Covid crisis revigorated debates about the need to reshore production in order to secure supplies and make some countries “great again”. But anti-trade movements and discontent had started before Covid-19 entered the picture. Here at home in the UK, we have had a clear example with the result of the Referendum that was to a large extent driven by a desire to have more control over trade and immigration, feeling that it had gone too far.

The trade war in which the world’s two biggest economies, China and the US, former globalisation champions, engaged in 2018, is another example. Moreover, under the Trump administration, the most important institution leading world trade, the World Trade Organisation, was severely fragilised and many thought was set to disappear– a prospect that now has been evacuated luckily.

All this against the background of a raise of nationalist political parties in many advanced economies. Even the IMF has recently changed its policy framework which now allow countries to impose previously labelled “heterodox” policies, such as capital controls.

The current situation in Ukraine and the impact it is having on the access to key energy inputs and food supplies are stronger push for a serious rethinking of the global model.

As of today, it is very difficult to predict how will the world look like in the next years. However, it is not risky to say that a turning point might have been reached this time. The dream of the global village seems to be fading, and we might enter a new era characterized by international fragmentation and mistrust.

It is the business of international trade scholars to understand the drivers and consequences of such structural movements.

These are structural factors that affect every single one of us in our everyday lives as consumers, workers, entrepreneurs, citizens, and cultural subjects.

As such, they generate passionate debates in the academic, political and public spheres. Such passions do not escape the private sphere either; I am sure that many of us here have had warm discussions at the family table or the pub about issues such as whether the UK should stay or leave the UE single market, whether it is a good or a bad thing to be able to buy cheaper goods from China and of whether we should stop importing from afar because of its environmental impact.

All of this leads to the conclusion that studying international trade is fascinating because it is key to understanding the world. For our business school students, most of which aim at careers in leading national and multinational firms, understanding the drivers of trade is paramount.

Another, nerdier, reason to study trade is that it is one of the eldest fields within economics. Trade thinking has had a fascinating intellectual evolution over time.

The field has developed a notable capacity to borrow theoretical approaches from other subfields in economics, forcing trade economists to acquire a large set of economic knowledge.

Thus, to any prospect student here, I hope I have convinced you to come and join our family!

Let me now try to put some structure into those pub discussions. In essence, they boil down to the two main questions that trade economists have been attempting to answer over the past two and a half centuries.

The first one can be expressed as "What determines the types of goods countries trade" (you might have heard the fancier term "comparative advantage" to refer to this) and the second is "what are the distributional consequences of such trade" (that is, who wins and who losses from trade openness?).

Let me say a few words about the first question. In a nutshell, trade integration allows countries to expand the activities for which they are relatively better than others (that is, in which the country has a comparative advantage over the rest) and shrinks the activities for which better capacities are found elsewhere.

Thus, opening to trade generates large reallocations of productive resources (capital, labour, land), which leave the shrinking industries in favour of the expanding ones. This is the reason for which, I believe, economists have been long enchanted with the idea of free trade, because it is based on one of the primary concepts in economics, which is that the division of labour enhances productivity and wealth. In its simplest textbook treatment, trade is akin to an expansion of the production possibility frontier, allowing a country to produce more goods out of the same resource endowment.

David Ricardo, the famous British philosopher, produced the first influential consistent set of reasoning along those ideas.

Using the example of trade between England and Portugal in the 18th century, he introduced the idea that relative productivity is what determines which goods England was to export to Portugal (in his example, cloth, which was the technologically advanced good and for which England had the capital to produce, requiring less men in England) and which it were to import (wine, more intensive in land and requiring less men in Portugal).

Later on, the contemporaneous independent work of two Swedish economists, Eli Hecksher and Bertil Ohlin, put factor endowments at the centre of the theory. Countries abundant in labour specialise and export labour-intensive goods, which are exchanged by capital-intensive

goods from nations rich in capital. Such exchanges lead, under quite general conditions, to the maximization of national income in both countries. This is the Hecksher- Ohlin theorem. Developed a century ago, it has been shown to extend to more general environments with many countries and goods and constitutes a powerful tool to understand current trade patterns.

The second question is indissociable from the first one.

The resource reallocation induced by trade determines the relative demand of production factors and naturally affects their prices. If the capital-intensive sector expands, then the demand for capital and its return will increase. But at the same time, the shrinking of the labour-intensive industry dampens demand for labour, thus lowering wages.

In the capital-abundant country, capital owners gain, and workers lose from trade, whereas the opposite happens in its labour-abundant trade partner.

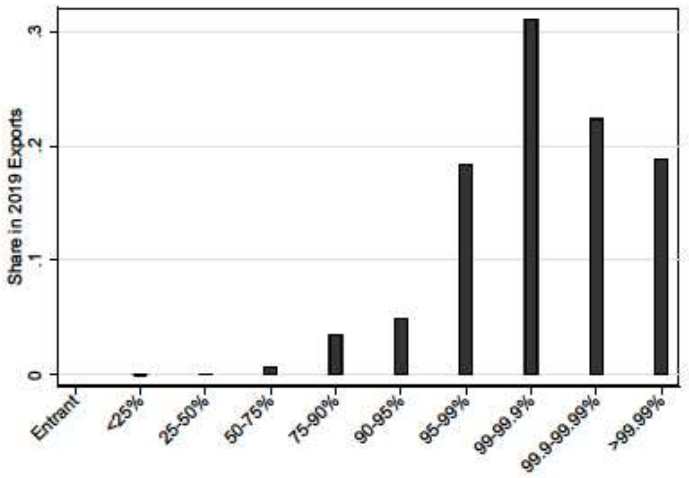
Which takes me to another one of the most influential theorems in economics, which is the Stolper-Samuelson theorem. It states that this is the case unambiguously: when a country integrates through trade, some factors are better off, and others are worse off. Once again, such simple theorem generalises to more complex environments and it is still very powerful to understanding the current world and especially the anti-trade movements I was referring to. I will come back later to this.

The last stop in this high-speed trip through the history of trade thinking is the last revolution in the way economists approach its study. A new framework was developed in the early 2000s by Harvard Professor Marc Melitz. The key innovation by Melitz was to place the firm as the key unit of study in international trade. Up until then, trade economists had placed their focus on aggregated entities such as countries or industries; individual firms did not play any particular role in determining trade patterns or its effects on the economy. As it builds on the new trade theory led by Paul Krugman in the 1980s, which was based on the existence of economies of scale as a reason for trade, this approach has been labelled, with little use of imagination I might say, the “new new trade theory”.

Melitz’s work is founded upon the premise that firm are heterogeneous, in particular in terms of their productivity, and that such firm heterogeneity is profoundly linked to their participation in international trade. This revolution was helped by the increasing availability of detailed datasets through which it became possible to observe and study differences across firms according to their trade status.

A large amount of work has since then shown that exporters are on average bigger, more productive, pay higher wages and are more technologically advanced than non-exporters. Such patterns hold in every single country. Furthermore, such view extends to the study of multinational firms, which since the 90s dominate international trade.

Figure 3: Share of total French exports by exporter-size bins



Source: Brincongne et al (2022).

The firm heterogeneity literature provided a new reason in favour of trade: openness reallocates not only across sectors but, within a sector, across firms: pushing the most productive firms to develop, and inducing the exit of the least productive ones. As a result, aggregate productivity and living standards improve.

Being a PhD student around that time, this approach to international trade has strongly shaped my view of the subject. Ever since, my research has incorporated elements of firm heterogeneity and has focused on the role of firms for determining the causes and impact of international trade. I was lucky to enter the scene at a point where the availability of firm level data was starting to widespread; all of a sudden, we had the means to look into the role of firm capabilities along many dimensions.

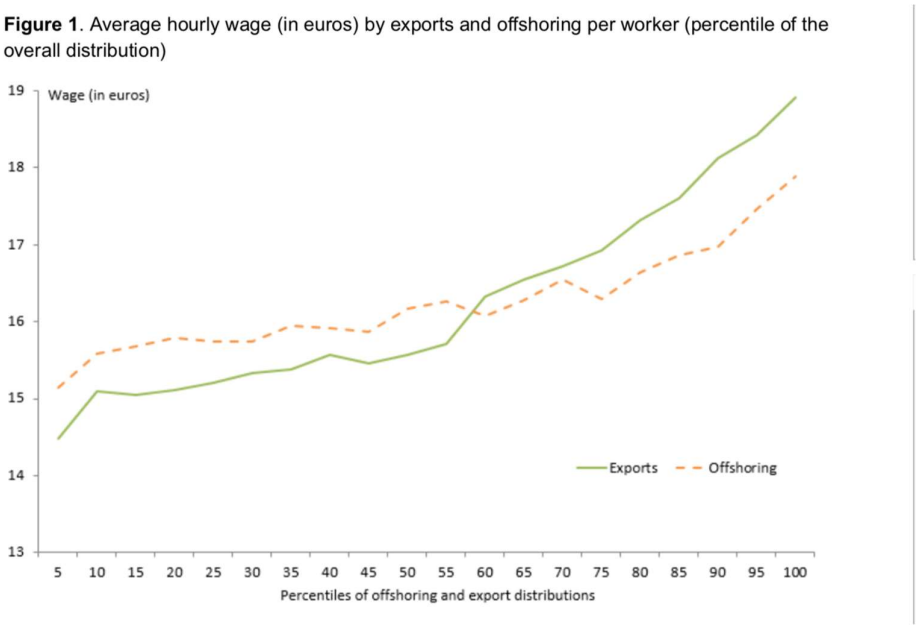
One first topic I want to comment on, that has kept me busy and to which I hope I was able to contribute to the debate was that of the labour market effects of trade. I believe that this research and related ones are key to understanding the anti-trade movements that I was referring to before. Clearly, trade generates aggregate gains, however these are unevenly distributed across individuals, with those occupying better positions or more skilled winning and the low skilled losing.

Figure 4 here is taken from my previous research (this slide is also used in my lectures). It shows the relationship between export and offshoring intensity of French manufacturing firms and the hourly wages they pay. We can see that firms that engage more intensively in international trade, either through exporting or through offshoring, tend to pay higher wages than those less engaged in international activities. The graph shows raw correlations, but I refer you to the paper where we show that a causal relationship exists, running from deeper engagement in exports and global value chains to higher wages.

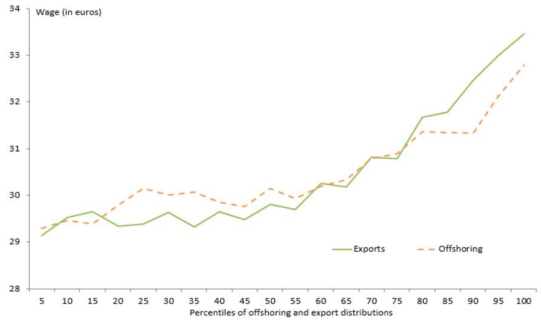
However, such wage gains are not distributed evenly across all worker types. In particular, Executives seems to reap most of the wage gains, whereas some blue collars tend to even lose. This is of course very much related to mechanisms of the Stolper-Samuelson type, but they are unveiled at the level of firms. These pictures show that trade redistributes wages towards relatively more skilled and educated individuals, and away from less skilled ones.

Figure 4: Average hourly wages by percentile of the export and offshoring intensity distribution.

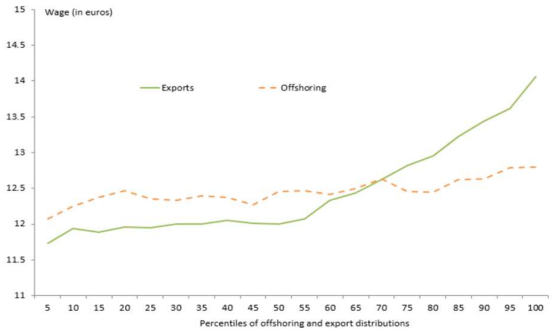
Panel A: All Workers



Panel B: Executives



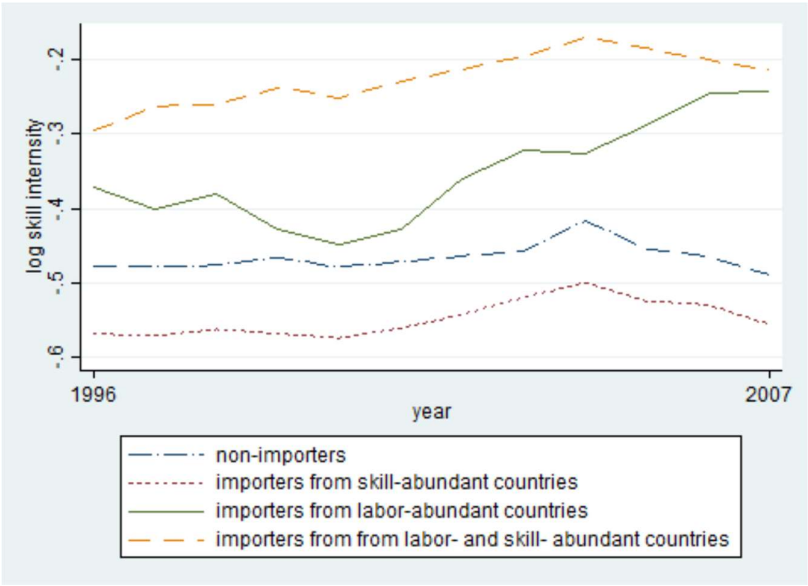
Panel C: Blue Collars



Source: Carluccio, Gautier and Fougere (2015)

In related work, Carluccio et al (2019), colleagues and myself proposed a theoretical model in which heterogeneous firms self-select into offshoring from low-wage countries. Following a comparative advantage logic, firms that offshore tend to locate skilled activities in France and their unskilled activities in low-wage countries.

Figure 5 (log) skill intensity by importer status. Skill intensity is measured with the log of the ratio of skilled to unskilled employment.



Source: Carluccio, Cunat, Fadinger and Fons-Rosen (2019).

This leads to a reorganization of employment in which the demand for skilled individuals raises and that of unskilled ones is decreased. As shown in the picture, those firms that engaged in offshoring from such countries did increase the skill intensity of their labour force faster than the rest. Thus, both works point to trade affecting workers in the same direction, either through employment or wages.

Because the largest firms tend to offshore more, the macro-economic impacts of these micro decisions are big. This paper is, at least to me and my co-authors, a good example of how to use traditional trade theories and add a fundamental role for individual firms to them.

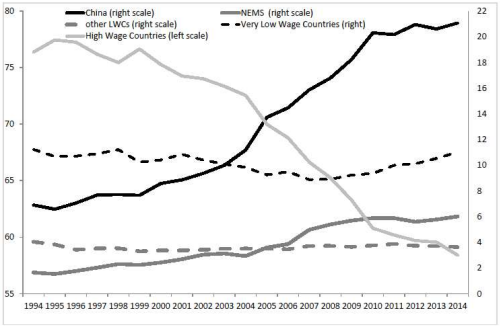
Thus, the particularity of the impacts from trade is that while their negative effects from trade are localised among well-defined sectors of the population, its gains are more diffused.

The other side of the coin is that, thanks to trade openness, consumers gain access to cheaper, higher quality goods and in wider varieties. Some of my work has been devoted to estimating the price impacts of importing, in particular from low wage countries.

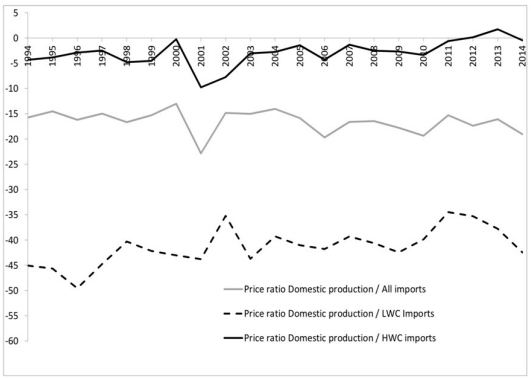
We have quantified the reduction in consumption expenditures that was associated with the enormous increase in imports from low wage countries, that is clearly seen in the graph, taken from Carluccio et al 2018, where you can see how the import basket has continuously switched towards goods produced in these countries. We estimate that the average French household experienced a reduction of 1000 euro in the consumption basket.

Figure 6: French imports of consumer goods from low-wages countries

Panel A: Share of imports by origin



Panel B: relative prices by origin



Allow me a little detour here to talk about how my research work has contributed to policy making. As I mentioned before, throughout my career I have been given a unique opportunity to move back and forth between rigorous academic research and sensible economic policy advisory.

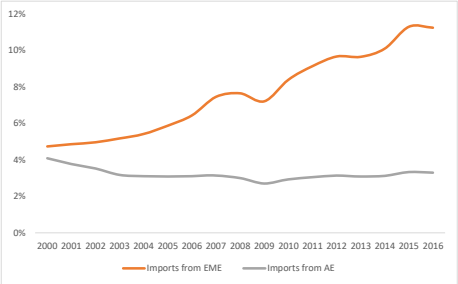
These are, in my view, two crucial aspects for an economics thinker.

While you would tend to think that they are tightly linked, you might be a bit disappointed. Part of such disconnection has to do with the timing that academic research and policy making requires, the latter being much more urgent and fast-changing. But my experience showed me that there is a demand by decision makers to be informed in a way that is founded on rigorous thinking, and that there are instances in which these two approaches meet.

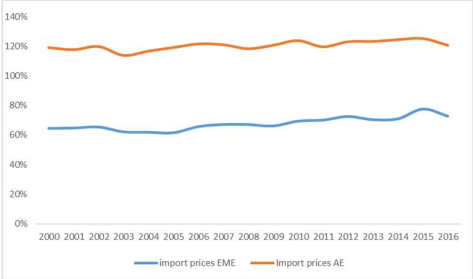
I will mention two of those here. In 2019, the European Central Bank conducted its first monetary policy strategy review since 2003. The aim of the review was to “to make sure our monetary policy strategy is fit for purpose, both today and in the future”. I was lucky to be an active part of the process, having a coordination role for the Chapter on the impact of Globalization for monetary policy conduct and inflation outcomes. A group of experts from central banks of the eurosystem contributed to a large report on the subject, which conclusions were then taken to the ECB Executive Board in order to shape their views on the subject and to include any changes in their strategy. The report was made public. This position allowed me to extend my previous research and provide it with purpose and visibility. The figure here shows an extension of the previous work on France but for the euro zone, showing the spectacular increase of the share of goods from low-wage countries in consumption expenditures.

Figure 7: euro area imports of consumer goods from low-wages countries

Panel A: Share of imports by origin



Panel B: relative prices by origin



Source: ECB (2021).

One of the messages that came out of this work is that, in spite of the large increases in trade that you can see in the graphs, its impact on inflation seemed in the end restricted. However, we have shown in an another institutional paper, published by the Banque de France, that this is partly due to the difficulty in measuring inflation (de Bandt and Carluccio, 2022). But also, perhaps more importantly, that the inflationary tensions that we are observing right now have a lot to do with the heritage of the hyper-globalization years, that left our economies much more interconnected with those in the rest of the world. Thus, shocks that occur elsewhere have stronger repercussions in our everyday life.

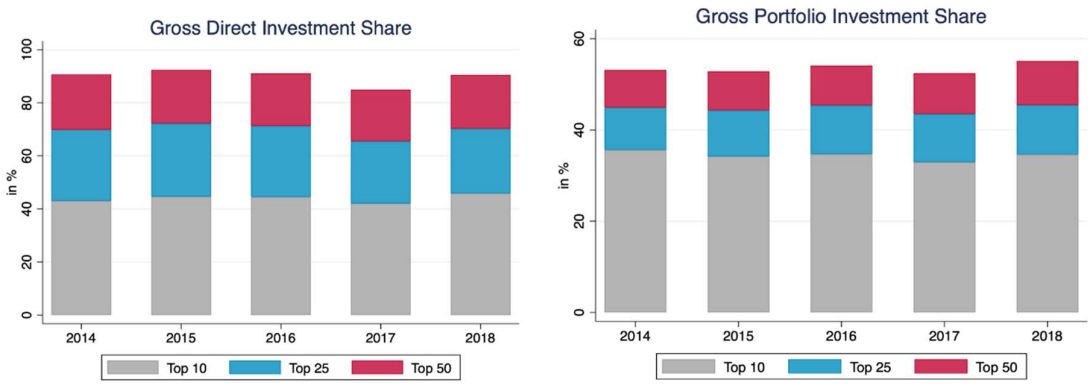
Another strand of my work, perhaps the one that links me more closely to my colleagues in the SIB department, has concentrated into the analysis of multinational firms, their organisational strategies and their link with host country institutions, and their effects on host country industrial development. This work reveals a non-trivial role for host country labour institutions in determining sourcing strategies. In particular, global firms tend to favour outsourcing when sourcing from countries with strong unions (Carluccio and Bas, 2015). It also shows that deeper financial development is associated with the export of more complex goods and through arms-length trade, relating the quality of a country's institutions to the participation of its firms in particular stages of global production (Carluccio and Fally, 2012). Detailed micro-data with information of the share of vertical integration across countries for each firm supports the model's predictions.

This research led me to another stance of policy impact. I was very lucky to be able to use my insights and methods to inform policy in my country of origin, Argentina in 2018 when I was appointed Director of Research with the International Trade Secretariat. Argentina is part of a trading bloc also comprising Brazil, Uruguay and Paraguay, and most tariff changes need to be made with the consensus of its members. Contrary to most of the rest of the world, the MERCOSUR did not engage in any tariff reductions since its inception in 1994. As a result, common external tariffs average around four times those of developed economies and are much larger than the average of the region. One particular problem we found out when studying the tariff schedule was the relative levels of tariffs according to the position of goods in the value chain. Specifically, tariffs applied to basic intermediate goods were very large. The research reviewed here and many other works show that importing intermediate goods

is associated with better firm performance. Furthermore, the large tariffs applied to intermediate goods generate costs increased that trickle downstream, causing employment losses for producers of final goods. We therefore designed a tariff schedule that focused on the reduction of tariffs applied to intermediate goods. Our work served as the basis for Argentina's position in internal MERCOSUR, influenced trade agreement talks, and guided concrete reforms in Argentina. The details of our diagnosis are presented in Carluccio et al (2018).

Finally, a word on my current research. The topic that I am getting very excited about, which is the role of very large firms in affecting economic outcomes. Economic activity tends to be very concentrated among a handful of firms, and their performance is key to understanding the behaviour of the macroeconomy. This is a natural continuation of the firm heterogeneity idea that I introduced earlier on. I have shown concentration in exports, let me now show you some new and exciting graphs from current research where we show that such concentration is very much present in international financial activity.

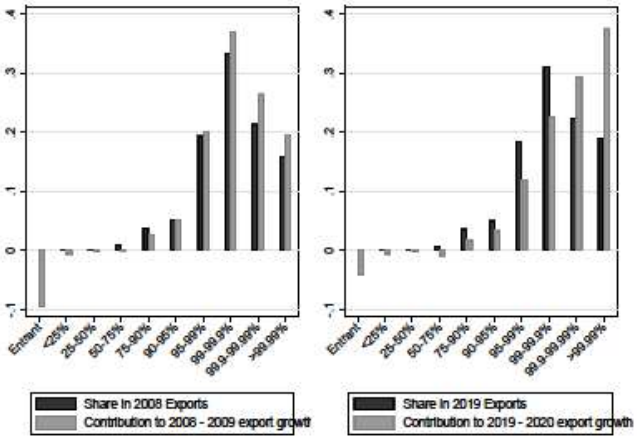
Figure 8: Concentration in Gross Portfolio and Direct Investment flows.



Source: Carluccio et al (2022)

But not only these firms account for a large share; they also respond differently to economic shocks. Here I replicate the graph I have shown before, for two periods: 2008-2007, during the Great Financial Crisis, and 2020-2019, the Covid crisis. During both event, French exports collapsed, falling by around 16% in value over the year. The dark bars show the share of total exports by bins of firm size, as before. The light bars show the contribution of each size bin to the export collapse. The fact that the light bars are larger for the very large firms implies that these firms over-reacted to the shock, showing that larger firms tend to be less resilient that medium-sized ones, contrary to what is commonly believe. The reasons and implications of such overreaction are a fascinating research agenda.

Figure 9: Very large exporters overreacted to the GFC and Covid shocks



Source: Brincongne et al (2022).

Let me then conclude. I hope I was able to convince you that the study of international trade is fascinating because of many reasons, the most important one being that it affects many aspects of our lives and as such it has always been a very controversial subject. It is only through open-minded and rigorous research that we can provide a grain of salt to improve the debate and therefore make a contribution towards a better society. Such has been the main motivation of my past work, and it is what drives the spirit of my Professorship at the University of Surrey.

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