

World Input – Output Database Conference on Industry-Level Analyses of Globalization and its Consequences

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Opening Key Note Speech

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I. ACKNOWLEDGEMENTS

Let me start by thanking the European Commission who is funding this interesting project looking at globalisation and its consequences on an industry-level. My thanks also to the Groningen University - and here I would like to pay tribute to Professor Angus Maddison, a well known economist-statistician who died in his 80s the 24 April and was the co-founder of the Groningen Growth Centre - who is leading the project.

II. INTRODUCTION

It might look out of place for a lawyer to deliver a speech on input-output analysis and its applications to trade, as many of you are presently wondering. To tell the truth, my wife, who is an economist and an econometrician, shared your doubts when I told her that the WTO director general, Pascal Lamy had asked me to substitute him and open this conference in his place. I was also feeling uncomfortable with the assignment: I knew that our DG was enthusiastically promoting the use of international inputoutput analysis for understanding modern trade, and that our statistical department has been active in this field for some times now, but I saw this field as the domain of economists or statisticians.

But I did my homework. I quickly realised that InputOutput pertained originally to us, the students of the liberal arts, and not to economists or statisticians. Indeed, the

notion of productive interdependence in an economy can be traced up to Sir William Petty, an English physician, a specialist of anatomy in the XVIIth century. And Petty's intuition was later formalised and developed by another physician, François Quesnay and his famous Tableau Economique.

Knowing that physicians discovered this subject, I feel more comfortable, as a lawyer, to say a word or two on the subject. Especially because I am a trade lawyer, and our two good doctors, Petty and Quesnay, were also linked to two currents of economic and political thinking that have shaped trade policies since then, the Mercantilists and the Physiocrats.

Petty was a pupil of the philosopher Thomas Hobbes, and became known as one of the Mercantilists, favouring active state intervention in the economy, and trade protectionism to create surplus and accumulate gold reserves. The Physiocrat Quesnay, on the contrary, had more faith on the human nature and called for minimal government interference in the economy, advocating a policy of "*laissez-faire les hommes, laissez passer les marchandises*".

We shall see that this controversy between Mercantilists and Physiocrats is still relevant today, and that international input-output analysis, promoted by the World Input-Output Database Project (WIOD), can help us to better understand their implications for trade, economic growth and development.

We can even link the new development in global economics to theories much older than Mercantilism and Physiocratism. The new global economy which emerged in the 1980s resuscitated a theory coming from the Early Middle Age: according to the American author Tom Friedman, *The World is Flat*, when we look at it through the new global concepts.

III. THE FLATTENING OF THE WORLD

To me, the basic idea behind the WIOD project is very much in tune with this new idea of a flatter world, where traditional boundaries and distances are collapsing. The

exact date when the flattening of the Earth started is still a subject of controversy. Let me propose a few dates to define milestones.

The "Global Matching" of mass consumer demand in the West with rising manufacturing capacities in the Eastern Asia started in the early 1960s and led to the emergence of the New Industrialised Economies (Korea, Chinese Taipei) besides Japan.

For the U.S., the imports of goods manufactured in East Asia rapidly became crucial to American retailers in their mass-market strategy. From the perspective of Asia's industrial expansion, U.S. bound exports were the pillar of their industrialization strategy. But these supply networks which emerged were still limited to a few partners.

From a truly global perspective, we can propose to mark the Flattening of the Earth the date of January 1979. It was the historical and ice breaking visit of Deng Xiaoping to the U.S.A., which marked the beginning of the end of the post-world war II era of separate blocks, and the return of China to the international market, through a long process of reform and industrialization.

Ten years later, in 1989, two highly symbolic facts cemented the new world: the fall of the Berlin Wall, which put a final touch to the political process the Xiaoping visit had started, and the Brady Bond initiative, that closed the international debt crisis of the 1980s which engulfed so many developing countries, particularly Latin America.

In the meantime, China had been progressively adopting a more open economy, and was slowly emerging as a world industrial power. This process was awarded international recognition in 2001, when China joined the WTO, the successor of the GATT.

Politics or economics alone would have been unable to flatten the world. This was also the result of changes in transportation and communication technologies, in

particular the informatics revolution that changed the way people, machines and organizations exchange and communicate.

The most emblematic symbol of the new interconnectivity is certainly the Internet. The birth of "modern" Internet can be traced to the early 1990s. Its success was such that in January 1992, the Internet Society was created to regulate its growth.

Thanks to change in world governance and in technology, the way modern businesses are run also changed, with huge implications for international trade. This is where the WTO comes into the picture.

A. FROM RICARDO TO GLOBAL SUPPLY CHAINS AND TRADE IN TASKS:

When the world was round, the old way of understanding international economics was best represented by the Ricardian theory of comparative advantage. Countries exchanged goods in which they had comparative advantages. England was producing textile and exchanging them for Portuguese wine. With some adaptation, this model governed the way economists understood international trade up to the late 1990s.

Meanwhile, new business models were appearing, promoted by advances in technology and also in engineering and business management. The production of final goods started to be fragmented into several stages, some of them outsourced to countries far away from the home country. More and more, the old concept of "country of origin" lost its meaning.

Now a days, in international trade of manufactures, what you see is no longer what you get: the label "made in ..." can be misleading. Let's take for example the new gadget launched by Apple, the iPad. According to a recent report ¹ the imported cost of a mid-range iPad imported from China into the U.S. is about US\$ 290. But the Chinese content is only 5% of the commercial value registered by customs, while

¹Financial Post, 6 April 2010.

most of the electronic content actually comes from South Korea, Japan and the U.S. while batteries are manufactured in Honk Kong, China by a Japanese company.

Consumer electronics is not the sole example of global manufacturing: The first new jumbo jet Airbus 380 that left the city of Toulouse, France, for its final export destination in Singapore was flying on wings made in UK and Spain, while Germany provided the bulk of cabin and fuselage manufacturing. Even the "European" origin of the carrier could be contested, because the engines were from the U.S. and Airbus Industrie has more than 1,500 suppliers in twenty-seven countries.

Even iconic status symbols like the "German Cars" are more global than German: More than 35 percent of the Porsche Cayenne build in Leipzig comes from suppliers based abroad.²

In this "Post Ricardian" model of international trade, specialization is no more based on the overall balance of comparative advantage in producing a final good. England does not trade textile for Portugal's wine anymore. In today's flat world the comparative advantages relate to each specific step of the global value chain that will lead, at the end of the chain, to the production of the final good.

This change of paradigm from trade in goods to trade in tasks calls for a change in the analytical and statistical tools we use to measure and understand the real world.

B. IMPLICATIONS OF GLOBAL SUPPLY CHAINS FOR TRADE STATISTICS

Trade in tasks calls for a new measurement of International Trade: The Value Added Content, or domestic content of trade. To take one of my examples, if we want to assign to each country of origin the value added imbedded in an iPad imported by the U.S. we must be able to measure how much comes from China, Japan or Korea, and, of course, from the U.S.

²Regine Hutterer :The impact of globalization on the German economy – 2006.

Confronted to the need to adapt the statistical apparatus, national and international statistical organizations can choose among two options:

The direct approach, by looking into the details of manufacturing and disentangling the origin and value of the inputs. Case studies, like the iPod or the Porsche Cayenne, do this; they are illustrative but not always representative. This is also the objective of ambitious programs at Eurostat and OECD, to link trade statistics and business statistics at firm level. But this is very intensive in micro-data, and reserved to the most developed statistical systems.

The WTO chose an indirect approach that can be extended to many countries, adapting existing trade and national account data usually produced by official statistics. I do not want to enter into the technical details that will be discussed during this conference by experts unlike me, except to say that this method relies on harmonizing a collection of supply-demand tables for each of the respective trade partners and linking these national tables through sectoral trade flows.

The WTO has embarked last year on a pilot study focusing on Asian economies, with the cooperation of the Japanese Institute for Developing Economies. Despite the relevance of the Asian input-output matrices, this pilot project remains restricted in its scope and we are still waiting for a worldwide database to generalize our findings. Fortunately, the World Input-Output Database project is filling this gap,

I am here to support the WIOD initiative, and to signal some of the policy implications we expect from a better understanding of the international economy.

Before providing some examples of the statistical implications for trade policy and international economics, I would like to draw a parallel between the Great Depression of the 1930s that led to the creation of modern national accounts, and what we are living today, after the economic crisis of 2008-2009.

National Accounts were instituted in the post World War II period to help government to better understand their national economy and avoid reproducing the disaster of

the 1929 crisis. Because the Nation-State was the key actor in those year of reconstruction and most enterprises were strictly national, the analysts devised the method to identify the territorial dimension within each nation-state, defining a clear-cut separation between resident and non-resident, between domestic and the rest of the world, between "us" and "them".

Today, after the 2008-2009 Great Recession, decision makers need a similar tool to link their national economy with the global context. Today's decision makers need to have the appropriate tools to do the same in a globalized world where small changes in inventories at some remote point of the international supply chain may translate into large changes in factory production back home.

This interconnection of domestic supply and demand schedules across national borders creates a closely knitted set of productive, commercial, financial and contractual arrangements. It is changing rapidly the way the international economy interacts, rendering obsolete or irrelevant many of the previous analytical classifications, like "country of origin". Global manufacturing even changes the post World-War II distinction between industrialized and developing economies. This change of paradigm is blurring, in the end, the national boundaries which were used to distinguish between "us" and "them".

Nevertheless, if policy makers are increasingly concerned by this increased interconnection of national economies, they still lack the appropriate statistical tools to measure and monitor accurately this interconnection. And it is where initiatives like the WIOD project can help them understanding better the new flat world.

The rest of my presentation will signal some of the implications the Global Trading and Manufacturing network has on our understanding of international economics.

C. IMPLICATION OF GLOBAL SUPPLY CHAINS FOR UNDERSTANDING INTERNATIONAL ECONOMICS

1. Trade policy revisited

When it becomes difficult to distinguish between the residents and the rest-of-the-world, to use a national account concept, it becomes also more much difficult to design a purely national economic policy, as we have seen in the recent crisis.

I mentioned that WTO was cooperating with the Institute of Developing Economies, IDE-Jetro on the use of input-output matrices for measuring trade in value added. A recent book on "Asia Beyond the Crisis", produced by this Japanese research centre makes clear that in the face of such complex global production system, the counter-crisis measures should not be to isolate the national economies with protectionist measures. The new Global Trading and Manufacturing Economy calls for devising systemic and cross-national programmes, coordinated at world level. The leadership taken by the G20 in organizing a coordinated response to the crisis is an example of such global answer to global challenges.

In other words, the design of national policies needs also to be adapted. Old "mercantilist" policies, based on the vision that trade is a competition between "us" and "them" becomes not only sub-optimal (which they usually were even when the world was round) but also a complete anachronism in our new flatter world.

Understanding that trade is not a zero-sum game between "us" and "them" has huge implications for trade policy and negotiations. For example, Canada announced recently that it had become a tariff-free zone for manufacturing inputs and machinery. Canada said it was doing this not only because it was committed to maintaining open markets to help the global economy recover after the crisis, but also because this unilateral action by Canada would help raise the competitiveness of Canadian companies.

Conversely, the temptation of "buying or hiring national to help national firms and workers" is self-defeating as it ultimately hurts the productivity and the competitiveness of the national productive economy. Thus, in the end, it destroys jobs for the people, particularly the most productive and better paid.

But we know that in times of crisis the pressure from the public opinion can push in the wrong direction. In absence of objective statistics demonstrating the interconnectivity of the modern production system, it is to be feared that false and obsolete policies will remain in the panoply of the most popular remedies.

One of my favourite versions of the Murphy Law is that every complex problem has a simple solution, easy to understand, easy to explain but totally wrong. Besides providing experts with the needed statistical tools for understanding the Global Trading and Manufacturing Economy, I also expect the WIOD project to counter this Murphy's Law and provide the media and other opinion makers with easy to understand but factual information about complex issues.

2. Macroeconomic implications: Global rebalancing

To illustrate the usefulness of the new global statistics that can be derived from interconnecting national productive and financial accounts, let me mention one of the most heated debated issues among economists now-a-days: the rebalancing of the global economy.

The large imbalances accumulated during the 2000s are often blamed for the 2008-2009 crisis. And most analysts highlight the large bilateral imbalance between the existing super-power, the U.S, and the new world manufacturer, China.

But relying on conventional trade statistics gives a distorted picture of trade imbalances between countries. As we saw when looking at the Chinese content of the iPad, what counts is not the imbalances as measured by gross values of exports and imports, but how much valued added is embedded in these flows. The WTO

estimate, based on IDE-Jetro data, estimates that 80% of the value of the goods exported by the US had a domestic content. The comparable figure was 77% in the case of Japan, 56% for Korea. It was about 50% for Malaysia and Chinese Taipei, meaning that half the value exported by these countries originated from other countries.

Using conventional trade statistics would overestimate the US bilateral deficit vis-à-vis China by around 30% as compared to measuring in value added content based on input-out matrices. The official figures for the bilateral deficit would be cut by 50% when the activity of export processing zones in China and Hong Kong, China re-exports are fully taken into account. By the same token, measured in domestic value added content, the bilateral deficit of the U.S. with Korea or Japan, the main providers of electronic parts in our iPad example, would increase in proportion to the reduction of the U.S. - China deficit.

This implies also that traditional exchange rate policies won't fully help in rebalancing apparent bilateral imbalances. If the Chinese value added in US import from China is just half its commercial value, a revaluation of the Chinese Yuan will increase the costs of Chinese good by only half the rate of the revaluation. In the case of consumer electronics, the impact will be even less than that, and only 20 percent of the variation in the exchange rate will pass through the price paid by importers.

This shows that, as our DG Pascal Lamy said recently at the Paris School of Economics, it is time to start measuring trade in value added rather than on gross value as is the case today!

IV. CONCLUSIONS

Each crisis reveals new issues and call for new policy instruments. The 1929 depression led to the creation of the modern version of National Accounts, as our Mercantilist and Physiocrat precursors had imagined them centuries before.

National accounts were built on the resident/non-resident vision of the world. But today's world of industrial production is dominated by global manufacturing, where international trade plays the role that inter-city connections played in the XIX and early XX Centuries. This interconnection of domestic supply and demand schedules transcends national borders to create a closely knitted network of supply and use contractual arrangements. Global manufacturing is changing rapidly the way the international economy interacts, blurring the differences between the resident/non-resident visions of the world that presided to the design of national accounts.

The objectives of the WIOD project are ambitious but provide an answer to the urgent need of offering an international version of the national accounts promoted by the Physiocrat pioneers of the XVIII Century. We at the WTO are waiting for the results of this project to improve our knowledge of the national value added content embodied in international trade. Our ambition, by providing new and more accurate statistics on international trade, is to help policy makers and trade negotiators in designing factual-based strategies in the best interest of their citizens.

And because the OECD, for whom the project has been originally designed, is by far the largest trader in the world economy, the benefit of this project will extend far beyond the club of the rich and wealthy nation, recently joined by my own country, Chile. As I mentioned in my presentation, not only Global Manufacturing has blurred the distinction between "us" and "them", between "residents" and "rest of the world", it has also blurred the post-World-War II distinction between industrialised economies and developing countries, between "Centre and Periphery". Prebisch is dead, would lament a structuralist economists, and the old North-South divide dear to many radical development economists is moving into a new East-West

bipolarization, where new modes of international production are translating into new international political institutions.

Let's face this new challenge with new visions. The governance of this new institutional order we are contemplating today calls for a change in the functioning of national and international organizations. It calls also for revamping the existing statistical system and provide the decision makers with the statistics they need to face their new responsibilities. I know that the ambition of the WIOD project is, ultimately, to provide support for the analysis of some global issues linked to global manufacturing, such as the environment. I mentioned that it will also help WTO to understand better the relationship between international trade and national value content, and ultimately, with job creation. Let's hope that this project will help the North, South, East and West realise that they are part of a same compass and condemned to share the same planet.

Let me conclude in wishing all the participants a fruitful seminar, in this beautiful city of Vienna.