Argentina: A Case of a Successful Experience in Exports for some Specific Cross-border Services

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INTRODUCTION

During the last fifteen years, the world has experienced astonishing and very profound changes at an increasing speed. We got used to the word Globalization as the conventional name assigned to this complex and almost inevitable process, by considering that a great number of its effects trespass in different ways and through several means the States’ borders, and consequently, modifying the long established and unchanged concept of sovereignty of nations. From an economic point of view, globalization brings both opportunities and threats in such a magnitude as never before to modern societies, also having a strong impact on politics and social and cultural structures. Opportunities and threats are challenges the governments and members of private sector and civil societies are obliged to face, whether they want to avoid the latter or take advantage of the former.

As interaction is perhaps the most outstanding characteristic of globalization, through which the latter spreads out its both positive and harmful impacts all over the world, there are few better suitable fields where getting empirical evidence from and measuring more clearly the evolution of global changes than international economic and financial relations ones and, within them, the trends in foreign trade of goods and services. Therefore, while it becomes evident that interaction is absolutely necessary for any human society to cope positively with globalization and not through isolation, at the same time is imperative to develop strengths and to get rid of as many weaknesses as possible.

But the SWOT 1 matrix’s outcome, by mixing all four well-known categories of analysis, is never the same from the point of view of each economic unit, whether this be a nation, an industry sector, or a single company. Likewise, those economic units interact with each other and each combination produces a particular competitive or a non-competitive pattern. Yet, this is a mere theoretical analysis and somewhat rigid. We have to add to the equation the production factors which the country is endowed with, like natural resources, available technology, the stock and the flow of capital, the size, efficiency, effectiveness and updating conditions of external economies (infrastructure, transactional costs, bureaucracy, legal and judicial system, etc.) and finally the human resources and its education levels, capacities and abilities.

Taking into account that globalization’s changes spread themselves at an increasing pace, passing partially or completely through borders, making a huge impact, and essentially modifying the human beings’ life in a way or another, the productive structures and their competitiveness -even of those few countries without an important degree of openness to the international economy yet- should have to adapt to the new conditions, and should have a fast response to the demands and demonstrate the ability to develop new competitive advantages over the comparative ones that each industry sector already has. According to some authors 2 the rationale of a nation’s competitiveness is to get the maximum of wealth and well-being of its population, and to reach that goal, at the end, productivity and not competitiveness is what it matters. However, we consider that productivity is one of the main sources of competitive advantage but before it is necessary to have certain productive factors to be successful in exports of services. Whomever the economist or economic school of thought, or the interpretation that an analyst or a reporter might give to recent trends and evolution of economic facts, it is rather difficult to deny that, whatever the causes, globalization has brought about new economic realities, showing outcomes -at least sectoral, in some industries branches and moreover in services- that dismiss and contradict in fact the Classics’ principles on division of labor.

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1 “SWOT: Strengths, Weaknesses, Opportunities and Threats Analysis”
2 Porter, Michael - The Competitiveness of Nations -
Building up the base for cross-border services production and exports.

The appropriate base to produce and export cross-border services can be improved and strengthened by a single economy acting on several different subjects. Investing in education and in research and development, introducing technologies adapted to the local culture and friendly to the environment, offering and assuring juridical security to legal contracts and protecting the investments within a permanent and clear legal frame, taking advantages of the natural resources’ endowment, adding a high professional level of local management with updated capabilities and tools required to interact globally, are some of the most important issues to develop within a strategy either at corporate or governmental level. And while the depicted framework is encouraging to the productive sector of goods it is even more so to the service sector.

Most of the transactions performed in any market-oriented economy are associated with services. Thanks to the IT revolution, the Services’ participation on the GDP is growing faster and further almost everywhere. The more the countries develop themselves the more the service sector shows an increasing participation on GDP. Sometimes service participation in the product reaches amazing levels (i.e. today Hong Kong’s production of services represents 89 % of its GDP). Considering the high importance of technology innovation and human capacities when producing services, it is possible to say that any company that strives to develop tradable services to the domestic market and becomes successful, it is likely that at the same time it is building up the capacity to export the service in question to foreign markets. On the contrary, not all markets are open enough to bring in foreign, specific kinds of services, according to the lists negotiated in the last Uruguay Round of the former GATT or to many other barriers or conditions required by the potential importing country exempted from the Most Favored Nation (MFN) clause within WTO’s rules.

Services has the potential to make, in the near future, the patterns of exports of many Developing Countries do not be drove by their respective and individual comparative advantages. So, creating and adding competitive advantages to many companies -specifically Small and Medium Enterprises - SMEs- everywhere, depends more on other factors than those typically connected to comparative ones, which can be settled down -in some professions and tradable services across the borders- with relative smaller amounts of capital than in certain types of goods. Nevertheless, the economic and financial equations differ according to the country and its level of development. Infrastructure capacities and public utilities, especially in telecommunication and information connectivity, must have a minimum threshold with technical and technological capacity and with trade fares to allow the customers to compete worldwide with relative equal fixed costs beyond those of the company.

On the other hand, when a country promotes and facilitates the production and the export of cross-border services this also contributes to the growth of intensive labor and environmentally friendly activities such as in architecture, engineering, medical, software, information, education, industrial design, publicity, law or accountant professional services, along with the so called “technological solutions” -a wide array of highly specific technical tailor-made services to solve particular problems without moving goods or equipment from the exporting country. The service sector contributes to the growth of the economy as well through the transference of technology and improving the marketing and distribution channels. This brings support to the trade of goods and another services, which couldn’t reach the consumers without those channels. Distribution services constitute a crucial link between producers and consumers, a relevant contribution to the well being of the entire local economy.

In one sense, the base for a strong cross-border services’ exporting sector is regularly and in most cases the same productive function developed any way with the aim to attend the domestic market, notwithstanding the objectives that eventually could have been individually fixed by the businesses with regard to exports and external markets. This is a very important factor considering that regularly no productive sector or company is set up just to send the whole production abroad. In most cases, domestic markets play an important role if not the most important one as regards business performance.
Of course, there are some exceptions. In many senses, it is fair to say that to develop exports of services a country must have and use certain “competitive” advantages (in this particular case it should be a very well trained labor force with a high level of professionals and technicians whose capacities were recognized internationally, and a good infrastructure and public utilities, and an increasing investment rate/GDP annual ratio on research and development, and in applied technologies and innovation). For all those factors everybody needs capital and financing, but in a great measure what is needed first of all is the will of leaders and the civil society to establish and follow an economic development strategy based on those competitive factors that the society itself can produce from its own human resources.

Summarizing, the development of production and the exporting of tradable services, especially for Developing Countries, is relevant for its significant contribution to the creation of well paid jobs, and for the increasing link, within a virtuous circle of competitiveness, with the use of advanced technologies, the investment -funded with priority from the public sector- on research and development of technologies and innovation and, above all, the demand of human resources with high levels of education and professional skills. This, in turn, puts pressure on societies and their leaders to focus their attention on the improvement of educational systems in terms of equality of opportunities for all the population regardless the socio-economic segment they belongs to. Last but not least, developing cross-border services contributes to retaining the locally trained professionals at a very high cost for the public systems of education, so preventing the "brain-drain" that affects most developing countries. In the end, to produce and export services, good governance and democracy are needed to improve of the standard of living of people.

As producing and exporting commercial services doesn’t depend relatively on natural resources and endowment of factors directly linked to comparative advantages as traditionally understood by the bibliography on economy, (i.e. land and eco-system suitable to produce huge volumes of cereals, soybeans and grains or meat in the agriculture sector of Argentina at an amazing level of international competitiveness), the most important factor a developing country has to care about regarding this particular productive field, is the education system, trying to improve the latter’s output quality and quantity. Of course, education is not a resource that can be developed in isolation for it is deeply linked with the main social conditions, hence it requires also the improvement of quality of life as a whole. This is not an easy goal to reach in the short and medium term for many of our countries that struggle themselves to get rid of poverty and social injustice. So, this is the most difficult barrier the poorest and most underdeveloped countries have to overcome to build up the base for a competitive service sector. On the other hand, fast and wide spread new Information Technologies have facilitated many SMEs companies in developing countries, specially those who offer professional services that can be provided on-line or sent by Internet. It has internationalization their commercial activities i.e architecture, engineering, law, medical, industrial design, among others.

Whatever the productive function is in any country regarding tradable services across the borders, there always exists potential for development by the local leaders, the civil society and its public and private institutions to promote growing service production and its exports. The only question that arises from that scenario is how competitive the economic units involved in it will be and, if the existing potential is fully developed, how much economic impact and return capacity will have to justify the allocation of public funds on foreign trade promotion activities and on somehow expensive assistance instruments, moreover if the breaking point of the cost-effective curve of each event and tool is not reached.

3 Any way, the so called “call centers” are usually established in developing countries like India or Argentina just to render services to customers in another country through long distant and overseas telecommunication services.

4 Thus, considering that in general terms the service sector requires high standards of training and education levels to the people working on it and that the salaries in some services, specially in professional ones, are above the regular salary paid in jobs that demand less skills, in the short and medium term regularly it has no a great impact on the descend of the unemployment rate in the least trained and educated portion of the economic active population.
First of all, Argentine exports of goods and services -measured through the Current Account data produced and published by the Ministry of Economy and the National Institute for Statistics and Census (INDEC)- grew from US$ 19.4 billion in 1994 to US$ 39.7 billion in 2004, which represents a 105% increase in that period. Taking into account the above mentioned amounts, in 1994 goods explained the 83% (US$ 16.0 billion) and services 17% (US$ 3.4 billion of the overall export value, while in 2004 those participations were 87% for goods (US$ 34.6 billion) and 13% for services (US$ 5.1 billion). In that ten-year period, exports of goods grew 116%, to an annual average growth rate of almost 8%. On the other hand, exports of services increased 53% in the considered period, to an annual average growth rate of 4.3%.

It is worth mentioning that, according to WTO figures, for the 1990-2003 period, services trade grew by roughly 6% per year on average, more or less the same percentage of average growth per year of exports of goods. Therefore service's share of international trade remained at about 20% over the period. Argentina, by comparison, shows a fall in the share of services over the total amount of its exports, from 17% in 1994 to 13%, despite the very important increase in absolute value in the same period. The weight of goods in the total foreign trade and the excellent performance of these products along the series explain the significant drop in the share of services. However, as we will try to explain below, that negative move in overall participation uncovers interesting and positive changes in the composition of the services exported.

At this point, to understand some of the changes that have occurred with regard to the evolution of exports of services in Argentina, it is necessary to mention that the whole economy of Argentina and thus the external trade sector were affected from 1994 to 2002 by different domestic and international facts and events. In 1995 the country received the impact of the Mexican "Tequila" crisis, followed in 1997 by the South East Asian crisis, then by the Russian crisis in 1998 and finally by the Brazilian one in 1999. In 2001 and 2002, Argentina underwent what has been rated the worst economic and social crisis in its history. After almost a whole decade (1991 to 2001) with an economic policy based on the so-called "currency-board" (or Convertibility Plan), on deregulation and privatization policies (not all of them were successful experiences), on the deep and unilateral opening-up of the economy, and with the Peso pegged to US Dollar at a rate 1 to 1, and following critical political events triggered off by the resignation of the President on December 2001, a provisional government quit the former "currency board" system, also called "convertibility plan" and devaluated the Peso.

So, any analysis on Argentina’s external sector has to take into account the remarkable move in the exchange rate Peso-US Dollar that has had a significant impact on the competitiveness of most of the tradable goods and services from 2002 on. As Travel (that shows the expenditure of foreign visitors - tourists and businesses- within Argentina) is the single account in Services with the highest amount of exports (and even more in imports) it is very understandable that after the US$ 3.0 billion record registered in 1998, had a violent fall in 2002 to US$ 1.5 billion, an amount that the observer has to get back to 1992 to find a similar level. However, just in 2003 and 2004, the income for receptive tourism in Argentina has been recovering at a fast pace, reaching in the last year US$ 2.6 billion. Any way, Travel has a rather low average growth rate of 2.86 % per year for 1994-2004. Although the number of foreign tourists visiting Argentina in 2004 has broke the record registered in the 90’s, their per capita expenditure has decreased in terms of hard currency as a consequence of devaluation.

Considering that the purpose of this briefing is to focus on cross-border services whose exports can be promoted in foreign markets, we will not consider the following accounts but indicate their respective average growth rate per year from 1994 to 2004: Transport + 2.38 %, Communication Services – 4.75 %, Insurance Services (no exports at all since 2001), Finance Services –12.0 %.

Perhaps the most outstanding feature Argentina shows in the performance of exporting services is the growing diversification and variety it shows in cross-border tradable services and their growth year over year in 1994-2004 period. In this particular segment Argentina’s exports of Information and Data Services grew by an average rate of 32% per year, just behind the average growth rate of 55.2% for Accountant, Law and Consulting services, the average growth rate of 37.4% per year of Personal,
Cultural and Recreational services, and the 33% average growth rate per year of Services Rendered Between Companies' Branches. Research and Development services (linked to technology, exported US$ 41.4 million in 2004) had a 28% of average growth rate per year, and Other Services increased at 14% of average growth rate per year. Another group of categories started up from zero dollar exported in 1994 to the figures registered by the INDEC in 2004. These sub sectors of Business and Professional Services are: Publicity and Market Research Services (US$ 33 million exported in 2004), Architecture and Engineering Services reached US$ 32.7 million of exports in 2004. There is evidence that devaluation has made more competitive professional services, though the series 1994-2004 shows exports amounts in current US dollars were all the way up.

It is possible, among other considerations that can be made, that deregulation and the opening up of the economy, along with the huge levels of Foreign Direct Investments -FDI- Argentina has received until the above mentioned great crisis, mainly allocated in utilities services updating the infrastructure in telecommunications to the best international level (despite all that brought with it very deep changes and consequences on the Argentine social and economic structure, which is not the objective of this paper to analyze), were responsible to some extent for the improvement of service sector competitiveness and for building up the base which enable professional cross-border services to be exported increasingly through the 90's despite the overvalued and export-discouraging real peso-US dollar exchange rate. Perhaps, the actual competitiveness advantage the Argentine tradable service sector gained in the 90's was the international interaction that the private sector, specially the one involved particularly in professional services (law, consulting, accounting, engineering, etc) was able to experience, with the help of Information Technology. As to develop exports in services it is important to maintain more intensive and direct personal contact with the importer than in goods, broadly speaking, the cost burden of traveling to the buyer's country becomes relevant, and in the 90's the appreciation of the peso fostered the argentine professionals to visit the importers no matter the latter's location. After 2002 and the devaluation of the Peso, there was a sudden change in Argentine professional services' relative costs against the same services in developed countries' markets. Professional services in Argentina is an ever growing resource as a result of the relative competitive advantage the country has had since devaluation, as salaries paid locally are low in terms of dollar value for other countries jointly with high standards of training and capacities of the local professionals and experts in these fields.

For this report, it is understood for exporting of professional services, the contracting of a professional to do a task in a country in which the former is not authorized by professional associations or where he lacks certification. So, we are talking about tradable service that really crosses the border without personal physical movement, mainly by IT and Internet facilities. Since the fast growth of Internet, those services are able to be sent from one country to another or even doing them on-line in real time. For Argentina, as an emerging developing country with a wide and long established professional sector and with a service sector that accounts for more than 50 per cent of the GDP, this is a very interesting alternative of non-traditional export to be explored and promoted.

Another sub sector with high potential comprises the medical services rendered in Argentina to foreign patients. Argentina has been involved increasingly in this service since the end of the 90s, and that has received a large boost by devaluation. Very similar to what happens in medical services and tourism, university and high level education is another sub sector benefited by devaluation in terms of the services offered locally to an increasing number of foreign students, most of them coming from neighboring and Latin American countries. In all of the above mentioned sub sectors, services are supplied on a superior quality level of training and professional expertise basis. Prices are not the main ingredient to consider when the importer makes the contracting decision. Prices are regularly considered only after the confidence on the professional's skills eventually being contracted have been well established after a process of mutual acquaintance between the two parties.

Call Centers are another cross-border solution when a company has to offer customers support services, which must be cost-efficient and supplied with the best quality. Call Centers have to be backed by the most advanced technology and by highly experienced personnel. The attention of customers in need of assistance has to be very fast and effective in cost terms. Services of this kind
are regularly available 24 hours, 365 days and can be configured according to the client's company needs.

3 Promoting exports of tradable across-border services in Argentina

The Ministry of Foreign Affairs, International Trade and Worship of Argentina, through the Under Secretary for International Trade (through the Under Secretary for International Trade) is in charge, at any federal, provincial and municipal level of the public Administration- of designing, proposing and implementing policies and strategies for external trade promotion, by industry sector, by company or by foreign markets and its different combinations as required. The Ministry also has the responsibility of the Export.Ar Foundation’s (Fundació Export.Ar) objectives and performance in foreign trade promotion. The ministry also funds the foundation's budget despite it is a mixed organization managed by a Board of Directors with members from both the public and the private sector. In this respect, the Under Secretary for International Trade coordinates and shares with Export.Ar the implementation of all trade promotion activities and events Argentina as a whole held abroad, devoted solely to support the private sector's efforts to get into the foreign markets. The foreign ministry manages, among other tools, the new Gateway "www.argentinatradenet.gov.ar", and coordinates the Technology Net, aimed to help the SMEs to introduce tech innovations to increase competitiveness. Likewise, it is a both SURCI and Fundación Export.Ar's goal to deploy as soon as possible a system to encourage the local private sector to export services, considering there are an increasing number of small and medium companies ready for it and an important number already doing it.

With regard to trade promotion of services, Export.Ar has produced a complete guide entitled "Exporting Services' Program", edited and published in April, 2003, providing useful information on topics like a) foreign markets, b) modes of access negotiated in the Uruguay Round and consolidated within the GATS's, and c) marketing suggestions for each kind of service to be exported and data concerning the best ways to face this business challenge successfully.

The Under Secretary for International Trade and Export.Ar's annual programs to promote exports includes since the late 90's a number of trade missions in Software and Information Technologies developed in Argentina, which is attracting a growing number of Micro, Small and Medium Enterprises -SMEs- with a very good return in terms of successfully completed international deals. In software sector, the country has a relevant potential based on the skills of local technicians and professionals to find suitable solutions to any specific need presented by the local and foreign customer.

Argentine companies working in the bio-technology sector are increasingly interacting with the international markets, and are active members of scientific research nets connected to the regional centers all over the world, sharing and getting information and data on new discoveries and developments. As the country was one of the leading nations in using genetically modified seeds for grains and soy beans, local laboratories and research centers are advancing fast in that field. So, the country is already exporting expertise in bio-technology.

Fundación Export.Ar mention in the Perspective and Conclusions Chapter of its Guide that:

"Services are a key factor for the development of countries and specially for Argentina, by taking advantage of the competitive advantages linked to local currency parity with the US dollar. So it is urgent to define actions devoted to increasing export potential, linking trade promotion activities with the strategies Argentina and Mercosur members are holding within Doha Round multilateral trade negotiations, and also, with the deployment of private businesses strategies.

"Export.Ar Foundation recommends the following measures to be taken in the field of foreign trade promotion of cross-border services:

- To Advice and support the private companies’ marketing efforts.
• To establish the proper distribution channels considered suitable to deliver most of the services in as many countries as possible, moreover when the delivery is direct to citizens-consumers in other countries.

• To find the means to facilitate the transference of payments from the importer in an easy and safe way.

• To make available the financing of trade projects of tradable services.

• To promote associated ventures through the links between entrepreneurs, investors and technical services.

• To offer a legal consulting service specialized in intellectual property, in dominion rights, etc. and to promote the approval of the necessary legal regulations.

• That Fundación Export.Ar be the intermediary organization between State and businesses, proposing and lobbying for tax benefits for the promotion of the services in which Argentina has competitive advantages.

• To train the SMEs on know-how to get foreign markets in services.

• To facilitate exports through the grant of certifications directed to give assurances to importers about the seriousness of the Argentine companies that receive Export.Ar’s assistance, the services' quality, the deliver date, the transparent and honest handling of the importers' credit cards data and the devolution of payment in case of claims about justified nonfulfilment of any contractual commitment whatsoever by the exporter. Export.Ar’s certifications should give assurances to the buyers abroad, helping to close business deals.

• To prepare papers on sectoral and services’ specializations directed to detect markets failures within Argentina and, from there on, fostering SMEs and entrepreneurs to concentrate all their efforts to improving their services and doing them more competitive internationally. For a company to be successful in foreign markets, besides the necessary know-how to manage itself in the traditional business world it has to face a specific training in the following issues:

  1. To establish specific business plans, focused to sector
  2. Whether is possible to use different marketing tools like Internet in the researched market.
  3. To improve or to develop a creative and innovative mind in relation to business in services. About creativeness, it is a particular feature of the service sector a great volume requirement of it.

"The goal the Argentine Ministry of Foreign Affairs and International Trade and its Fundación Export.Ar has with regard to the foreign trade promotion of cross-border services is to spread throughout the country's private sector the concept of services as a new tool with the potential to increase the whole economy's productivity. Also, that exporting services means to participate in one of the fastest and steadiest growth of trade flows in the international markets.

"As each country has different structural economic, social and cultural conditions, to establish its own strategy for services depends on the income and educational levels and the telecommunication's infrastructure stage. The effort that the country has to face to get successfully involved in this kind of business is a thought task, but the award is worth of the struggle.

"The following activities are clear examples about what Fundación Export.Ar has been designing to be comprised of a Program of Activities for Foreign Trade Promotion of Services:
• Buenos Aires City Receptive Tourism Program.
• Promotion of tourism in Argentina through the International Fairs' Program coordinated by Fundación Export.Ar.
• Mendoza Province’s Exporting Group of Receptive Tourism
• Assistance to the Exporting Group of Buenos Aires City Architects
• Creation of two new groups of Software exporters receiving Export.Ar’s assistance and financing from Fundación BankBoston.
• Participation in the Software Exports to Miami Seminar.
• Participation in the Hannover Software Fair.
• Locating Call Centers in New York.
• Support to the Argentine Cinema Week in Los Angeles, USA
• Participation in Expo Location.
• Tango’s Export at the Wine & Food Festival of USA.
• Sports’ exports program.
• Assistance to companies in charge of sportsmen’s federative rights.
• Television Independent Producers' Association (an Argentine Business Chamber)
• Support to the creation of Pampa Group (Grupo Pampa) in fashion sector.
• Participation in Momi Fair (design services)
• Export of Online Education to foreign students.
• Country-Brand Program, devote to improve the Argentina's image at the institutional level to back the marketing actions the private sector do in foreign markets. In the fresh and processed food the country-brand is “Argentine Food: A Natural Choice”. The country-motto will change accordingly to the specific sector characteristics.
• Support to export of Cooking Courses.
• Support to setting up a Franchising Consortia: group that promote the export of brands, and formed by companies associated to the Argentine Franchising Association.

Finally, the participation in the ITC's Executive Forum Global Debate on Export of Services will bring the opportunity to get acquainted of an important number of other countries experiences in this particular business field, to analyze what Argentina has been doing in this sector and whether is necessary to modify and improve some instruments and tools to help the private companies, and to get connected from now on with many governmental agencies for foreign trade promotion facing similar problems to share in the future mutual cooperation and data to produce synergy and with private sector representatives involved in this area. All that will be an added value to the existing programs already in force in Argentina through different levels of the public administration.
BIBLIOGRAPHY


- Cámara Argentina de Turismo (Argentine Chamber for Tourism) - "Importancia de la Industria de Viajes y Turismo como Actividad Económica" - Buenos Aires, 3 de agosto de 2004 - 40 pp.


- Galli, Emiliano - "La Exportación Inteligente - Servicios: una nueva apuesta comercial - Profesionales argentinos que venden sus conocimientos afuera." - Diario La Nación - Suplemento de Comercio Exterior - Buenos Aires, 18.03.2003 -

- "Guía para la Exportación de Servicios" - La Ciudad Produce y Exporta" - Gobierno de la Ciudad Autónoma de Buenos Aires - Secretaría de Desarrollo Económico - Buenos Aires, Noviembre 2002

- International Monetary Found - IMF - "The World Economic Outlook" - Statistical Appendix: Tables regarding World Trade Volumes and Prices, and Current Account Transactions in Goods and Services; and Terms of Trade in Goods and Services. - Washington, 2005 - Through the IMF’s site in Internet.

- International Trade Center UNCTAD/WTO - Geneva - Site in Internet and publications.


- Organization for Economic Co-operation and Development -OECD - data and reports from its site in Internet and prints and publications.

- Protocolo de Montevideo sobre el Comercio de Servicios (MERCOSUR) - Decisión Nº 13/97 del Consejo de Ministros del Mercosur -CMC-

- Rego Gil, Antonio Carlos - "O Século do Brasil" - Article published by Gazeta Mercantil on September 05, 2005 - Brazil’s exports of software exports.


- "Trade and Competitiveness in Argentina, Brazil and Chile: Not as Easy as A-B-C." - Organization for Economic Co-operation and Development -OECD


- World Trade Organization -WTO - Geneva - data and reports - Site in Internet and prints and publications.