Regional integration and foreign direct investment: the potential impact of the FTAA and the EU-MERCOSUR agreement on FDI flows into MERCOSUR countries: sectoral analysis

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I – Introduction

The aim of this research is to analyze the impacts of EU-Mercosur and the FTAA on investment flows directed to Mercosur countries, emphasizing the sectoral dimension of such investments. In general, studies on direct investment flows focus on the total of inflows and outflows, abstaining from investigating the influence of sectoral factors in these transactions.

Using descriptive and econometric techniques, we seek to highlight the influence of geographical factors – such as distance, host country location, and affiliation to regional integration plans – on sectoral FDI flows. The main hypothesis in this paper is that sectoral characteristics and geographical factors play a fundamental role to determine companies' investments. These characteristics allow a much more precise assessment of TNCs strategies and FDI flows, contributing to better formulation of policies concerning foreign capital.

II - Methodology

To achieve the objective proposed above, we sought information about the main countries involved in negotiations of FDI flows and stocks, and also data on the activity of TNCs headquartered in these countries, disaggregated by sector.

The information found was limited and very heterogeneous. Concerning countries, the broadest set of information was related to the United States. Data from the American *Bureau of Economic Analysis* allowed us to characterized sectoral information in a relatively comprehensive way. They also allowed us to work with gravity models with

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information disaggregated by sector. The FDI data analyzed were those of FDI made by the United States between 1990 and 2002, disaggregated by sector and host country, totaling 61 host countries and 10 subsectors, including the total of Manufacturing and Services. Based on these data, we carried out 10 tests, one for each sector, adopting as explanatory variables for FDI the GDP, the distance, an index of relative labor cost, and a set of regional dummies. Based on the results, simulations were conducted to check the potential impact of the FTAA on investments in the largest Mercosur countries.

Concerning the European Union, information was available for three members only: Germany, United Kingdom, and Spain. For these three members, information could not be made consistent to measure statistically the impacts of the EU-Mercosur agreement, given the diversity of available data, different classifications, and periods covered.

III – Results

The results found through gravity models show that, in fact, there are important differences in the determination of American FDI flows to different sectors. Explanatory variables such as distance and GDP showed very different coefficients among sectors, indicating that these sectoral characteristics are important to determine FDI flows. Likewise, it became evident the importance of regional integration agreements in American companies' investments. In some sectors, the international division of labor organized by American TNCs points to the development of production networks, levered by the constitution of NAFTA. In other sectors, it is levered by export platforms in Asia. Concerning Mercosur, sectors as Food, Metals, and Chemicals stood out, and the region showed great importance in the estimates.

Next, we conducted a simulation to understand how the adherence of Brazil and Argentina – both representing Mercosur – to FTAA could impact FDI flows. This is justified by the perception that their adherence to FTAA, as it was proposed initially, would have similar effects to an adherence to NAFTA, since the clauses concerning investments would resemble in both agreements. The simulation captures only the variation of FDI flows from the United States and bound for Brazil and Argentina, without necessarily revealing if this would deviate investments bound for other regions/countries.

The table below shows the results of this simulation.

Potential FTAA impact on American FDI flows to Brazil and Argentina, by selected sectors, predicted increase in FDI inflows in year 2002, percentages

	Argentina	Brazil
Manufacturing	16.5	15.6
Services	16.9	16.3
Food	4.9	4.6
Chemicals	11.6	10.9
Metals	12.0	11.4
Electronics	17.9	17.3
Transportation Equipment	11.0	10.1
Other Manufacturing	18.9	17.9

Source: NEIT-IE-UNICAMP from BEA primary data and simulation using model (1) above

Potential impacts on American sectoral FDI are much more limited than those predicted by aggregate models. For example, in Brazil, the slightest positive impacts would be felt in sectors in which this country already has a certain degree of sectoral specialization in the attraction of American FDI, namely, Food, Chemicals, and Transportation Equipment. The same is valid for Food in Argentina.

On the other hand, sectors in which NAFTA receives investments from the United States, stressing Electronics and Other Manufacturing, showed the highest rates of growth, but, even so, at far lower levels than those estimated by models that disregard sectoral disaggregation.

Moreover, simulation results must be regarded with reserve, since adherence to FTAA would hardly alter the current pattern of specialization of American TNCs sectoral operations. The process of displacement toward Asia – especially in Electronics and without the need for a free-trade agreement – and Mexico – regarding NAFTA and the short distance in relation to parent companies – seems to have exhausted the possibilities of a new round of transference or expansion of industrial plants to other regions. Although current investments enjoy great flexibility and low barriers, it is unlikely that the adherence of countries such as Brazil and Argentina to FTAA can reverse this scenario of specialization and deviate to them, by means of the integration *per se*, American investments in sectors with a still weak presence in the South of Americas.

Concerning the European Union, there is a clear difference not only among the sectoral destination of flows from the three regions analyzed, but also, for each of them, different concentrations of FDI in Mercosur host countries. Regarding Germany, despite the fact that industrial investments point to an important insertion in Mercosur countries, especially in Transportation Equipment, and to a lesser extent in Chemicals, it is possible to see the competition of less developed European countries, as Hungary and Czech Republic. Even so, in the case of an agreement simultaneous to FTAA, it is possible that a concentration of activities occurs in Mercosur countries, which would be able to supply the other South American countries.

Regarding United Kingdom investments, although the information available allow only a few conclusions, it is possible that the same effect appears in Machinery and Food, as a consequence of the concentration of these segments in Brazil.

As for Spain, whereas FDI in Argentina and Uruguay is concentrated in manufacturing, in Brazil, it is almost entirely directed to services. Notwithstanding, the fact that great part of Spanish investments have been made in privatization processes allows us to conclude that the prospects are for a marked reduction in flows. A regional integration agreement would have a slight influence on future FDI flows.

IV - Final Remarks

The data analyzed for European Union countries show that it is difficult to generalize the possible impacts of the EU-Mercosur agreement, given the heterogeneity of sectoral interests of different countries of the European bloc in Mercosur countries.

Regarding the United States, both the descriptive analysis of American TNCs strategies and the empirical investigation through econometric methods revealed not only heterogeneity, but also relatively rigid patterns of strategic insertion and spatial distribution. A relative rigidity, which would be little altered by exogenous events as processes of economic integration *de jure*, such as FTAA.

Therefore, the expected impacts of a possible economic integration on American FDI flows would be more limited than those obtained by the aggregate analysis of FDI flows. Elements as domestic market growth, labor cost, and distance, as well as the already settled spatial distribution of affiliates, tend to be more relevant than the adherence to free-trade agreements.

Therefore, this research sought to show that aggregate analyses must be complemented and refined by microeconomic studies to shed more light on the debate on the effects of economic integration and on economic policy formulation in countries such as the ones in Mercosur, which, besides facing an agenda of regional, multiregional, and multilateral integration, are also going through a fragile financial situation and have an urgent need to resume their industrial development.