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**Trade regimes and effects of FDI: evidence  
from Uruguay**

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**Trade regimes and effects of FDI**  
*Evidence from Uruguay*

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## ABSTRACT

The present paper describes the characteristics of inward FDI in Uruguay during two different trade regimes - the import-substituting period that lasted until 1973 is compared to the subsequent, more outward-oriented policy environment - and examines differences in the productivity spillovers from the foreign MNCs that entered during the two regimes. The results indicate that the foreign MNC affiliates established during the import-substituting regime have positive productivity spillovers effects on local firms, but there are no signs of productivity spillovers from the affiliates established during the outward-oriented period. One possible explanation for these findings is that import-substituting foreign affiliates bring in production technologies that are not well developed in the host country, which creates a large potential for learning and transfers of production technology to local firms. Export-oriented foreign affiliates, by contrast, may base their operations on production technologies that are not very different from those used by local firms, and instead build their competitiveness on skills in international marketing and distribution.

## 1. Introduction

The effects of different trade regimes on productivity and efficiency have been debated for several decades. The currently most common policy conclusion from the debate is that trade liberalization is a necessary step on the way to faster growth and economic development, and this conviction is illustrated by the outward-orientation of the many ongoing IMF and World Bank-supported economic reform programs in the developing countries. One of the major motives for liberalization is that competition from abroad reduces the market power of individual firms and forces them to economize on costs, with higher productivity and X-efficiency as a result. Another argument holds that it is necessary to facilitate exports, since the limited size of most national markets precludes exploitation of scale economies.

However, the empirical evidence on the effects of trade policy on efficiency and productivity is still mixed. The experience of the rapidly developing Asian NICs seems to demonstrate a positive connection between outward-orientation and growth (Dollar, 1992), but the evidence at lower levels of aggregation is much weaker. For instance, examining plant level data for Chile and Colombia, Roberts and Tybout (1991) conclude that there are no clear correlations between differences in trade exposure and labor productivity. More generally, Bhagwati (1988) notes that there is little empirical evidence to support the (plausible) theoretical arguments for why outward-oriented policies should be beneficial, while Pack (1989) argues that empirical studies have not been able to find any significant connection between trade liberalization and

productivity growth.

Most of the earlier studies of the effects of trade policy on productivity have not distinguished between domestic and foreign firms. Yet, trade policy also influences the amount and character of incoming foreign direct investment (FDI), which, in turn, is likely to have some impact on domestic industry. Foreign multinational corporations (MNCs) entering inward-oriented economies typically focus on the local market, producing goods that would otherwise be imported, and it can be expected that they bring with them technologies that are not fully mastered by local firms. MNCs investing in outward-oriented economies are likely to export more, and their competitive assets may sometimes be related more to marketing and distributions skills than to superior production technology.

The establishment of foreign MNCs can be expected to have both direct and indirect effects on the productivity and efficiency of the host country's industry. In fact, some of the main host country benefits of FDI are considered to stem from inflows of new technology to MNC affiliates, since these flows create a potential for technology spillovers to locally-owned firms (see e.g Caves, 1974; Globerman, 1979; Mansfield and Romeo, 1980; Blomström, 1989). The technology and productivity of local firms may improve as foreign MNCs demonstrate new technologies, provide technical support to their local suppliers, and train workers and managers who may later be employed by local firms. The competition from MNC affiliates may also substitute for import competition, and force local firms to operate more efficiently than

what would otherwise have been the case. It is also possible that the spillover effects are negative, e.g. if the foreign MNCs drive all local firms out of business and establish a monopoly position.

In addition, recent studies have indicated that the spillover benefits from FDI may vary according to the characteristics of the foreign MNCs (Kokko, 1994; Kokko, 1995, Kokko, Tansini & Zejan, 1996). For instance, it seems that a large technology gap between foreign and local firms can be an obstacle to spillovers, particularly in industries where foreign MNCs hold large market shares and the products are very differentiated. Hence, if the amounts of FDI and the characteristics of the incoming foreign MNCs vary depending on the trade policy regime, it is also possible that the indirect effects - spillovers - on local industry vary accordingly.

The purpose of this paper is to describe some characteristics of incoming FDI during two different trade regimes in Uruguay, and to examine whether the MNCs entering during inward and outward-oriented regimes have similar spillover effects on the Uruguayan industry. The next section describes the changes in Uruguayan trade policies during the past decades, and summarizes some characteristics of inward FDI. Section 3 examines whether there are any differences in the observed productivity spillovers from MNCs that entered during the import-substituting and outward-oriented regimes. Section 4 discusses the results and concludes the paper.

## **2. Trade Regimes and FDI in Uruguay**

The post-war economic history of Uruguay can be separated into two distinctly different trade policy regimes, with the year 1973 as a dividing line between inward and outward-oriented periods. The period before 1973 was characterized by traditional import-substitution, but trade policies have gradually become less restrictive. As a result of the regime shift, the character of incoming FDI has also changed.

### ***Import substitution***

In response to the world-wide economic depression of the 1930s, Uruguay adopted an import-substituting development strategy, where trade was controlled through quantitative restrictions and exchange controls. The institutions in charge of the system, the Central Bank and the Board of Export and Import Controls, issued import licenses and allocated foreign exchange to different users according to strict priorities, based on the availability of foreign currencies and the current policy objectives. Imports of raw materials, intermediate products, and some essential consumer goods were given priority, while imports of "luxury goods" - that is, everything not classified as essentials or intermediates - were discouraged. Moreover, the allocation of licenses and foreign exchange was based on a barter philosophy, which prescribed that Uruguay should mainly import from countries that imported from Uruguay.

It became obvious already during the late 1950s that these policies led to serious inefficiencies and a suboptimal allocation of resources. A temporary attempt to reduce the restrictions was therefore made in 1959, when a unified exchange rate was introduced, and the quantitative restrictions and import prohibitions were replaced by tariffs. The results were weak, however, because the trade regime remained highly protectionist: the administration was authorized to impose import surcharges of up to 300 percent, to require prior deposits for imports, and to temporarily prohibit imports that competed with domestic production. In addition, the tariffs were not based on c.i.f. prices, but rather on administratively determined reference prices that were generally higher than the actual prices. Consequently, the import demand for all but necessities and intermediates remained very low, and the brief liberalization attempt gave way to more restrictive policies already in 1962-63, when exchange controls were reintroduced. *De facto* quantity restrictions were also brought back in 1968.<sup>1</sup> Although the importance of different trade policy instruments varied over time, there is a broad consensus that the level of protection was rising until the reforms in 1973-74.

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<sup>1</sup> Strictly speaking, there were no formal quantity restrictions on imports, but limitations were upheld through a system of high tariffs and prior deposits. Only the formal tariffs were levied on imports up to the limits specified in import licenses, but all further transactions were subject to additional requirements. Up to 12 times the import value was to be deposited for six months at interest-free accounts in the Central Bank. Given that the average rate of inflation between 1968 and 1974 was nearly 50 percent, these requirements could, in the extreme case, correspond to an extra ad valorem tariff of 260 percent. See further Favaro and Spiller (1991).

## ***Trade liberalization***

A military coup in 1973, together with the oil crisis that hit the world economy the same year, created the conditions for a more permanent change in the trade regime. The terms of trade collapsed as the world price of oil tripled and the European Community imposed restrictions on imports of Uruguayan beef, with a severe external crisis as a consequence. After an initial attempt to counter the falling real incomes with increased subsidies - the major effect of which was to create a large fiscal deficit - a more outward-oriented policy package was introduced in 1974. In the trade policy area, import licensing and quotas were abolished, tariff surcharges were reduced, the foreign exchange market was deregulated, and efforts were made to promote and diversify non-traditional exports. Tax reforms, liberalization of the capital market, reductions of public expenditures, and stricter performance requirements for public utilities were also included in the policy package. The response of the private sector was remarkable, considering that the past decades had been marked by chronic stagnation. GDP growth picked up, and averaged over 4 percent during the first years after the reforms. Until the early 1970s, only some food, textile and non-metallic mineral industries had been export oriented, while most other sectors had been protected from foreign competition. From 1974, several other industries, e.g. clothing and footwear, became export oriented, and both export and import shares of GDP increased significantly.

The export expansion was temporarily halted between 1978 and 1982, when stabilization became a more important policy objective, and the Uruguayan peso appreciated significantly as a result of strict monetary policies. Yet, the outward orientation survived, and a gradual process of tariff reforms was instituted after 1979, when Uruguay joined the GATT. During the 1980s, the structure of tariffs was simplified - the 28 tariff levels at the beginning of the period were cut to 5 levels - and the tariff rates were reduced, from an average of 45 percent to a maximum of 30 percent in 1990. Since then, the trade policy reforms have continued with further simplifications and tariff reductions, as required by the establishment of the MERCOSUR customs union. Although the policy environment is still not neutral, since relatively high tariffs remain in force, it is clear that the period after 1973 represents a distinctly more outward-oriented trade policy regime than the preceding decades.<sup>2</sup> (Connolly and De Melo, 1994, and Favaro and Spiller, 1991). Figure 1 illustrates the increases in the share of exports and imports in GDP since the reforms were launched in 1974.

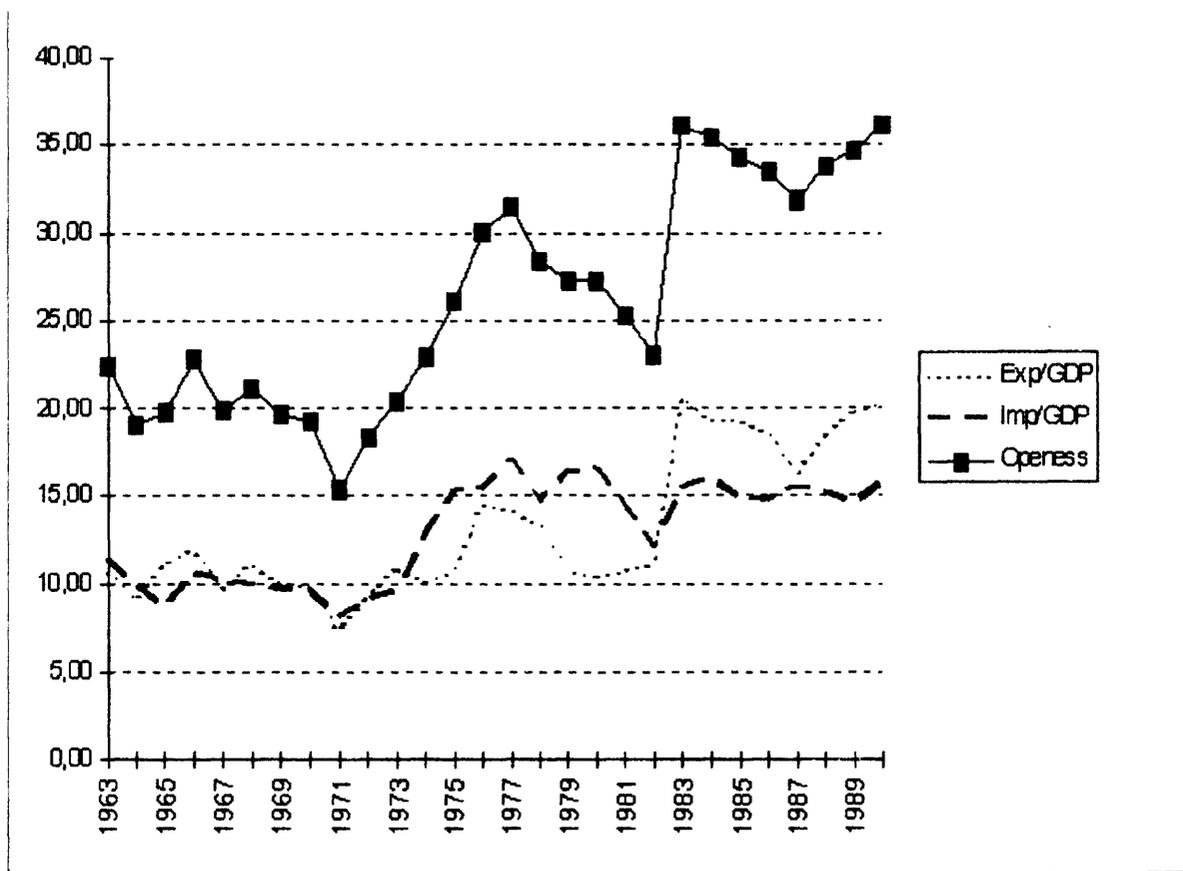
The inflows of FDI have also changed in response to the shift in the trade regime. The liberalization of the trade regime in the mid-1970s was followed by a significant increase in the investment inflows. Detailed time series data on the inflows of FDI into Uruguay are not available, so it is not possible to make any detailed examination of changes in the amounts and characteristics of FDI. However, we know

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<sup>2</sup> Effective protection remained higher and was more dispersed than nominal protection until the 1990s, because of the reference price system.

the date of establishment of the foreign-owned firms in Uruguay today, and a look at the present population of foreign firms may provide some indication of the underlying pattern.

**Figure 1. Export, import and Openness Ratios in Uruguay, 1963-1990.**



The foreign firms that were established before 1973 are found primarily in local market-oriented industries such as prepared food products, beverages, pharmaceuticals, perfumes and cosmetics, and metal products. In addition, the wool-based textile industry has attracted relatively much foreign capital. After 1973, foreign

investments have been directed to more export-oriented activities. Canned fruits and vegetables, fish, meat, and clothes and textiles are among the industries that have received the largest number of new foreign investments since 1973. Only few industries have attracted foreign firms during both trade regimes - instead, in most industries, the FDI has occurred either during the import-substituting or the more outward-oriented period.

Although the present trade policy environment is more or less the same for all firms, irrespective of their date of establishment, it is also possible to discern some differences in the behavior of the foreign MNCs that arrived before and after the change in the trade regime. For instance, the MNC affiliates established before 1973 are still larger, use more capital-intensive technologies, and are significantly less export-oriented than those that have arrived later. They also import a much larger share of their inputs than what the MNCs that were established after 1973 do. The existence of these differences, and the fact that the two trade regimes have apparently attracted two different groups of foreign investors, provide a reason to examine whether there are also differences in their impact on local industry.

### 3. Spillovers from MNCs Established during Different Trade Regimes.

The data used in the present paper to examine the impact of foreign firms on local industry are taken from a firm survey of the Uruguayan manufacturing sector collected by the Department of Economics at the University of the Republic of Uruguay, and from unpublished work sheets collected for the Uruguayan Economic Census of 1988 by the National Institute of Statistics in Montevideo. The full sample consists of 1243 private manufacturing firms, distributed among 74 four-digit industries. The sample covers all firms in Uruguay with more than 100 employees, and about 30 percent of the smaller firms. In all, the sample accounted for 73 percent of sales, 92 percent of the capital stock, and 64 percent of the employment in Uruguayan manufacturing in 1988.

**Table 1. Descriptive Statistics for Locally-Owned and Foreign-Owned Manufacturing Firms in Uruguay 1988.**

	Locally-owned		Foreign-owned	
	before 1973	after 1973	before 1973	after 1973
Number of firms	650	467	82	44
Average:				
L/firm	106.0	45.0	185.0	126.0
VA/L	4033.0	3073.0	8618.0	6404.0
K/L	6724.0	3183.0	5124.0	6582.0
LQ	0.24	0.17	0.38	0.25
Export/Sales	0.09	0.13	0.13	0.42
Import <sup>a</sup>	0.22	0.10	0.52	0.32
ADV/Sales	0.008	0.008	0.027	0.024

<sup>a</sup>Imported inputs as a share of total inputs.

Foreign-owned firms were present in 41 of the 74 four-digit industries in 1988.<sup>3</sup> Of the 126 foreign-owned firms in the sample, 82 were established before 1973, and 44 were established later. Table 1 above presents some descriptive statistics for local and foreign firms established before and after 1973. Regarding differences between foreign-owned and locally-owned firms, it can be noted that the foreign firms are typically larger, more export-oriented, more likely to import their inputs, advertize more, and have higher labor productivity. However, the differences between new and old firms are sometimes larger than those between foreign and local ones. In particular, the firms established after 1973 are smaller and more export oriented, irrespective of the nationality of the owner.

### ***Model and variables***

To examine the impact of foreign presence on local labor productivity, we follow earlier empirical studies of productivity spillovers, e.g. Caves (1974), Globerman (1979), Blomström and Persson (1984), and Kokko (1994), and estimate simple production functions for the locally-owned firms in the sample. The sample we use for the regression analysis consists of the 763 locally-owned firms that were present in industries with foreign-owned firms. In addition to several standard firm and industry characteristics that can be expected to influence labor productivity - such as proxies for capital use, labor quality, market power, and product differentiation - we include the degree of foreign presence in each industry as an independent variable in our estimation, as in equation (1) below.

$$(1) \text{VA/L}^d = a + b_1 \text{K/L}^d + b_2 \text{KW/L}^d + b_3 \text{LQ}^d + b_4 \text{ADV}^d + b_5 \text{SHARE}^d + b_6 \text{FOR} + e$$

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<sup>3</sup> Firms are classified as foreign-owned if foreigners hold more than 10 percent of the shares. However, foreign minority-ownership is not very common, and the foreign owners hold majority positions in 85 percent of these firms.

The dependent variable,  $VAL^d$ , is the ratio of value added to employment for each individual locally-owned firm, and it serves as a proxy for local labor productivity. The independent variables fall into two categories.

First, to account for the variation in local productivity that stems from differences in factor inputs, we have included the three variables  $K/L^d$ ,  $KW/L^d$ , and  $LQ^d$ .  $K/L^d$  is the ratio of the book value of fixed capital stock to employment for each locally-owned firm, while  $KW/L^d$  measures the electricity consumption per employee in locally-owned firms. Together, these two variables are intended to capture differences in capital intensity and rate of capital utilization between locally-owned firms.  $LQ^d$  is defined as the share of management personnel in each firm's total employment, and it is a proxy for labour quality. (The correlation between labor productivity and wages prevents us from using wage data to measure labour quality.) All three variables can be expected to have a positive impact on labor productivity in the local firms.

Since the dependent variable is defined in value terms, it is also necessary to take into account differences in the individual firms' abilities to influence their product prices. The variable  $SHARE^d$  is the individual locally-owned firm's share of total sales in its four-digit industry, and it proxies the firm's market power.  $ADV^d$  is the firm's share of the total advertizing expenditures undertaken in its four-digit industry, and it proxies the firm's efforts to differentiate its product from those of its competitors. The expected impact of both these variables on labor productivity is positive: both market power and differentiated product should make it possible for a firm to charge higher prices. But, it has to be noted that these variables, specially advertising, can exert an entry deterrence effect, dampening the industry competitive enviroment. If cost in advertsing is sunk, this leads to unrecoverable entry and exit costs and forms entry and exit barriers.

FOR represents several alternative proxies for foreign presence. The first of these is FORALL, which measures the share of all foreign firms in the total output of

the four-digit industry to which the locally-owned firm belongs. If the estimated coefficient of FORALL is positive and significant, we argue that there is also a causal relation between foreign presence and local labor productivity, i.e. that there are productivity spillovers from the aggregate population of foreign firms to local firms. The two other proxies for foreign presence are FORPRE and FORPOST, and these distinguish between foreign firms established during the two different trade regimes. FORPRE is the output share of the foreign firms established before 1973, during the import-substituting period, while FORPOST is the output share of foreign firms established after 1973. Comparisons of regressions where FORPRE and FORPOST are used as alternative variables should indicate whether the two kinds of foreign firms have different impacts on local productivity.

In addition to the three estimations of equation (1) where we employ our alternative measures of foreign presence, we also check the results by dividing the sample according to the year of establishment of the locally-owned firms, and running the model separately for the locally-owned firms established before and after the shift in the trade regime. This is done in order to examine whether the capacities of local firms to absorb spillovers differ depending on the trade regime at the time of their establishment. In total, we thus have 9 regression estimations, as reported in Table 2. All results refer to OLS estimations of linear, additive versions of equation (1), and all variables used in the regressions have been normalized by division with the sample means.

## ***Results***

Regression equations (2.1) to (2.3) present the results for the whole sample of 763 locally-owned firms. Looking at the proxies for factor inputs, it can be seen that all the estimated coefficients are positive, as expected, and highly significant for  $K/L^d$  and

**Table 2. Regression Results. Dependent variable VA/L<sup>d</sup>**

	All Local Firms			Local Firms Born before 1.1.73			Local Firms Born from 1.1.73		
	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)	(2.6)	(2.7)	(2.8)	(2.9)
<b>constant</b>	0.495 (9.37) a	0.507 (10.30) a	0.631 (12.29) a	0.595 (8.68) a	0.618 (9.66) a	0.707 (10.65) a	0.318 (4.067) a	0.272 (3.78) a	0.455 (6.23) a
<b>K/L<sup>d</sup></b>	0.106 (6.85) a	0.106 (6.95) a	0.111 (7.11) a	0.042 (2.57) b	0.042 (2.57) a	0.042 (2.49) b	0.194 (6.08) a	0.180 (5.87) a	0.208 (6.78) a
<b>KW/L<sup>d</sup></b>	0.047 (3.65) a	0.047 (3.70) a	0.045 (3.52) a	0.037 (3.02) a	0.036 (2.98) a	0.036 (2.92) a	0.104 (2.70) a	0.118 (3.16) a	0.104 (2.76) a
<b>LQ<sup>d</sup></b>	4.874 (9.78) a	4.837 (9.81) a	5.062 (10.10) a	4.157 (8.70) a	4.116 (8.63) a	4.231 (8.77) a	10.279 (7.18) a	10.613 (7.66) a	11.723 (8.24) a
<b>ADV<sup>d</sup></b>	-0.662 (1.69) c	-0.670 (1.73) c	-0.749 (1.90) c	-0.696 (1.84) c	-0.679 (1.80) c	-0.744 (1.95) c	0.991 (0.96)	0.649 (0.65)	0.548 (0.54)
<b>SHARE<sup>d</sup></b>	0.044 (1.20)	0.0283 (0.78)	0.053 (1.45)	0.057 (1.34)	0.049 (1.16)	0.061 (1.41)	0.044 (0.74)	0.010 (0.18)	0.055 (0.94)
<b>FORALL</b>	0.567 (4.098) a			0.477 (3.06) a			0.384 (1.60)		
<b>FORPRE</b>	0.009 (5.78) a			0.006 (3.48) a			0.013 (5.05) a		
<b>FORPOST</b>	-0.006 (2.19) b			-0.002 (0.45)			-0.016 (4.29) a		
<b>adj. R<sup>2</sup></b>	0.2647	0.2802	0.2531	0.2510	0.2555	0.2351	0.4045	0.4448	0.4328
<b>n</b>	763	763	763	442	442	442	321	321	321

KW/L<sup>d</sup>. The variable SHARE<sup>d</sup> also seems to exert a positive impact on local productivity, whereas the coefficient for ADV<sup>d</sup> is negative, and significant at the 10 percent level. This could be a surprising result, since it is hard to see a reason for why relatively high advertizing expenditures should cause the labor productivity of a firm to fall. The most reasonable explanation may be that the product differentiation reduce significantly the competitive pressure in the industry, acting as entry barrier. An other explanation could be that individual local firms that record high values for ADV<sup>d</sup> are found in the least developed industries: in more advanced industries, where foreign MNCs hold higher market shares, they also account for the bulk of advertizing expenditures. Regarding the effects of foreign presence, it can be noted in eq. (2.1) that there appear to be significant

positive productivity spillovers from the aggregate population of foreign firms: the coefficient of the variable FORALL is positive and highly significant. This result is comparable to those found by Globerman (1979) for Canada, and Blomström and Persson (1983) for Mexico.

However, continuing to eqs. (2.2) and (2.3), we see that there appear to be large differences between the effects of FORPRE and FORPOST. The estimated coefficient of FORPRE in eq. (2.2) is positive and highly significant, while that of FORPOST in eq. (2.3) is negative and significant. This suggests that foreign firms established before 1973 may generate positive productivity spillovers to local firms, but that the impact of the foreign firms established after 1973 is the opposite. In other words, the presence of import-substituting MNCs appears to exert a more beneficial effect on the productivity of local firms than the presence of export-oriented MNCs.<sup>4</sup>

This may appear as a paradoxical result, since import-substituting MNCs have entered in order to produce for the local market, and are often in direct competition with local firms. However, there are several arguments to explain their apparently positive impact on local productivity. Firstly, it can be expected that the import-substituting MNCs enter with technologies that are missing or weakly developed in the local industry, which creates a large potential for demonstration effects, copying, learning, and other kinds of spillovers. Export-oriented MNCs, on the other hand, typically enter in order to exploit the competitive assets of the host country, and often base their strength on their international distribution and marketing networks. These are assets that may also spill over, although they do not necessarily have much impact on local productivity, but rather on export success.

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<sup>4</sup> Note that the size of the coefficients of FORALL, FORPOST and FORPRE cannot readily be compared. There are several observations where the variables FORPOST and FORPRE are zero, whereas FORALL is positive for all firms in the sample.

Secondly, import-oriented foreign firms exert tougher competition on local firms, and may force them to adopt more modern and productive technologies in order to stay in the market. The import-substituting foreign firms have been present in Uruguay for decades, and it can safely be assumed that the weakest or least flexible local firms in their industries have been forced out of business already a long time ago. Some of the positive connection between labor productivity and foreign presence may, thus, reflect that only the strong local firms have survived. Regarding the more outward-oriented MNCs that have entered Uruguay since 1973, it is possible that all structural changes of this type have not been completed yet. Some local firms may operate at low capacity - and consequently exhibit low labor productivity - because recently established foreign firms have taken over a share of the market.

Eqs. (2.4)-(2.9) summarize the regression results for the two sub-samples of local firms, established before and after 1973. The results are similar to those for the entire sample of 763 firms: there seem to be productivity spillovers from foreign firms established before 1973 to both old and young locally-owned firms, but there are no signs of spillovers from foreign firms established after 1973. Hence, although old and new local firms differ in several aspects, e.g. regarding average size and outward-orientation, the data suggest that there are no significant differences in their capacity to absorb productivity spillovers.

#### **4. Concluding Remarks.**

This paper has shown that both the characteristics of incoming MNCs and their effects on local labor productivity are likely to differ depending on the trade regime at the time of their establishment. Foreign firms established during the inward-oriented trade regimes are also focusing on the local market, and to succeed in the competition with local firms, they are forced to bring with them some technologies that local firms do not

possess. The MNCs' imports of technology seem to provide opportunities for productivity spillovers to local firms. The foreign firms that enter during more outward-oriented trade regimes do not seem to base their operations on production technologies that are very different from those of local firms (or that can easily be learned by local firms), but rely more on their international marketing and distribution networks. Hence, there are no signs of productivity spillovers from the operations of these MNCs.

Does this provide an argument for import substitution? The answer is no, for two reasons. Firstly, although our results suggest that there is a larger potential for productivity spillovers from import-substituting foreign firms, we have not been able to say much about allocative efficiency. It is likely that many of the industries where import-substituting foreign MNCs are active are such where Uruguayan comparative advantages are relatively weak. Hence, the costs stemming from an inefficient resource allocation may be larger than the benefits from technology inflows and productivity spillovers. Secondly, there may well exist a trade-off between productivity spillovers and export spillovers. It is possible that the more outward-oriented MNCs that have entered Uruguay since 1973 have transferred useful knowledge about foreign markets, international marketing, and distribution to the Uruguayan business community, and that these knowledge spillovers have helped locally-owned firms to establish export operations. In fact, recent empirical studies indicate that this type of export spillovers may be quite significant: Hansen *et al.* (1994) show that geographical proximity to exporting foreign MNCs increases the likelihood that local Mexican firms are also engaged in exporting, whereas locating close to exporting domestic firms has no such effect. This is an area where further research is needed, and we plan to complement the results of this paper with an analysis of the export behavior of local and foreign firms in Uruguay.

In summary, although this paper does not provide any new policy prescriptions regarding what trade regime to choose, we do suggest a more nuanced picture of the effects of trade policy on productivity and efficiency. In particular, our results suggest

that the role of foreign MNCs may be relatively more important in inward-oriented than in outward-oriented trade regimes: with inward-oriented policies, there are few alternatives to foreign MNCs as sources of international technology transfer and foreign competition.

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