“We cannot continue alone. Soon we will have to open up to the whole Americas and our traders will not have gained the necessary experience to be successful.”
Roberto Henriquez
(Vice-minister of Foreign Trade, Panama. Financial Times, February 2000).

“In Mercosur’s closed block, a significant amount of trade is composed of uncompetitive products, which cannot be exported to other markets.”

1. INTRODUCTION

An argument often brought forward, when discussing the benefits of regional integration in Latin America, is that the formation of a larger market may serve as a platform for (potential) exporters to world markets (Devlin and Ffrench-Davis, 1999). According to this view, illustrated by the quote of Mr. Henriquez in the Financial Times (and referring to Central American trade integration), the region can serve as a “classroom” for potential exporters, where they can learn “how to export”. Trade preference encourage exports within the region and thereby exporters can accumulate the necessary experience and reputation to become reliable and competitive suppliers in world markets.

An alternative view, illustrated by Mr. Guidotti’s quote in the Wall Street Journal, is that the regional trade preferences only help promote low-quality intra-regional exports. As tariff preferences increase, uncompetitive exporters enter the regional market. These exporters will not be able to penetrate more distant markets with their products and trade preferences will only encourage trade diversion.

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All remaining errors are ours. The views expressed here are those of the authors and not necessarily those of the institutions to which they are affiliated.
Moreover, the entry of low quality producers into the regional export market can potentially hurt the overall reputation of regional products. This will be the case, if, for example, consumers in the rest-of-the-world (ROW) can only observe the average quality of products exported within the region rather than firm specific quality.

To some extent the “region as a platform” argument is a distant cousin of the infant-industry argument for protection. The infant industry argument assumes that there exists some positive externality between levels of production today and the competitiveness that can be achieved tomorrow. The region as a platform argument assumes that there exists a positive externality between exports to the regional market today and future exports to more distant markets. In the case of the former, some may advocate (temporary) trade protection in order to encourage production today. In the case of the latter, (temporary) regional trade preference are advocated in order to encourage regional trade.

The theoretical literature on infant industry protection has identified the presence of information barriers as one important justification for government intervention (Mayer, 1984 and Hoff, 1997). Information barriers have also been identified as being part of the most important problems faced by exporters in developing countries (Raff and Kim, 1999). Indeed, building good reputation and trust in foreign markets seems to be as important, if not more important, than in domestic transactions. Even in countries with a well developed judicial system, an important share of what makes a successful business deal will typically lie outside the contract established by the two trading partners (McLaren, 1999). Thus asymmetric information on the importer side in terms of quality of products and the reliability of exporters in terms of delivery and credit can become significant barriers for exporters to distant markets. Similarly, asymmetric information on the exporter’s side in terms of customs procedures, foreign markets tastes and ways of doing business can jeopardize their success in distant markets. Preferential access within the regional market can help obtain the necessary experience and reputation that can then help overcome barriers in more distant markets through these “information spillovers”.

The objective of this paper is twofold. First, to identify whether information generated in one export market can help Mercosur members to increase exports to other third markets through these information spillovers. (And if yes, whether the export experience acquired within Mercosur markets is more likely to generate these export information spillovers than the experience acquired in non-Mercosur markets?) Second, to search for evidence that the creation of Mercosur, and the tariff preferences associated with it, have helped member country exporters overcome some of the barriers associated with exporting to more distant markets.

Mercosur, which was created in 1991 and encompasses Argentina, Brazil, Paraguay and Uruguay is an interesting case study for at least two reasons. First, differences in size among member countries can help identify asymmetric patterns

\[1\] For a model that shows that the argument for infant-industry protection in the case of information barriers may vanish if firms can chose the quality of their products, see Grossman and Horn (1988).
in the existence of platform effects. Second, although intra-Mercosur exports have been growing much quicker than extra-Mercosur exports (26 and 7 percent), the average growth of Mercosur exports to the ROW went from around an annual rate of 1 percent in the late 1980s and early 1990s to around 7 percent in the late 1990s. This suggests an acceleration of the rate of integration of Mercosur exporters into world markets consistent with “region as a platform” hypothesis.2

The rest of the paper is organized as follows. Section 2 describes how we proxy for the presence of information spillovers across export markets and platform effects associated with regional trade preferences. Section 3 describes the empirical model to test for the presence of export information spillovers and platform effects and discusses the empirical results for Mercosur members. Section 4 concludes.

2. Measuring Export Information Spillovers and Platform Effects

To capture the platform effect associated with the acquisition of information on the reliability of Mercosur exporters by importers in the ROW, and the acquisition of information on customs procedures and foreign tastes in the ROW by Mercosur exporters we first need to have a measure for export information spillovers. In order to do this, one needs a proxy to capture bilateral information flows across countries.

Figure 1 illustrates how export information spillovers at period t-1 (the kink and dash arrows in figure 1) affect export of a Mercosur country to third markets (the partner) at period t (the large horizontal arrow). The export performance of a Mercosur country (call it “0”) in other Mercosur members markets or the ROW at period t-1 will be transmitted to a third market through information flows (e.g., trade in newspapers) and consumers in third markets will learn about the export performance of country 0 exporters. At the same time exporters in country “0” will learn more about consumer tastes in the third market when exporting to countries with which the third market has significant information flows (the dash arrows). These information flows (the kink and dash arrows) will in turn positively affect export flows of country 0 to the third market at period t. If export information spillovers generated in other Mercosur markets increase with the extent of tariff preferences granted by Mercosur members, one will be observing a platform effect.

2.1. Measuring bilateral information flows

Information flows across countries are captured using the value (in real terms) of trade in newspapers and periodicals (SITC 8922) between countries. This includes trade oriented papers such as the Journal of Commerce (US), Export Channel (US), Made for export (Europe), Asian Channel (Hong Kong), Gazeta Mercantil Latinoamericana (in Mercosur countries) but also more general journals, 2

Obviously, other explanations are also consistent with this observation. For example, the Brazilian devaluation in 1994, and some MFN trade liberalization that may have occurred simultaneously.
magazines and periodicals. It has several advantages over the more traditionally used measure of distance. First, it allows for size effects. The amount of information between Mercosur countries and Mexico is larger than the amount of information between Mercosur countries and Honduras, though the distance between them is very similar. Second, it allows to control for cultural factors such as language and colonial links. Information flows between Mercosur countries and Spain are much larger than between Mercosur countries and South Africa, though the latter is closer to Mercosur than Spain.

### FIGURE 1
THE ROLE OF INFORMATION SPILLOVERS FOR EXPORT PERFORMANCE

<table>
<thead>
<tr>
<th>Partner Country</th>
<th>Mercosur Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Spillovers at t-1</td>
<td>Information Spillovers at t-1</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>Rest of Mercosur</td>
</tr>
<tr>
<td>Export Flows</td>
<td>Export Flows</td>
</tr>
<tr>
<td>Export at t-1</td>
<td>Export at t-1</td>
</tr>
<tr>
<td>Information Spillovers at t-1</td>
<td>Information Spillovers at t-1</td>
</tr>
</tbody>
</table>

### 2.2. Measuring export information spillovers

Export information spillovers are defined as the information acquired by importers, when observing the export performance of foreign producers in third markets, regarding the quality of products of those exporters. On the exporter side it includes the information acquired by exporters when exporting to one market regarding customs procedures and tastes of foreign in third markets. As in Nicita and Olarreaga (2000) we measure them as the information flow weighted sum of exporters market shares in all markets in the previous years. The idea is that a larger market share in an export market will signal a higher quality product to importers in third markets and this will help increase the demand for these products in third markets. Thus, the export performance in each market (measured by past market shares in each market) gets transmitted to other importers through bilateral information flows across export markets (measured by the share of their newspaper trade with other market). More formally, if \( N_{c,j} \) is a vector of share of newspaper trade between country \( c \) and all other export markets of a Mercosur member and \( S_{p,t-1} \) is a vector of past market share of the Mercosur member in all of its trading
partners at period \( t-1 \), the inner product of \( N_{c,t} \) and \( S_{p,t-1} \) is our proxy for export information spillovers.

2.3. Measuring platform effects

In order to test for a platform effect associated with tariff preferences, we will check how the information spillovers generated in Mercosur members are affected by tariff preferences granted at the creation of Mercosur. More formally, following the notation above, the platform effect is captured by:

\[
\psi_{M_t} = T^M \cdot N^M_{c,t} \cdot S^M_{c,t-1},
\]

where \( T^M \) is the within Mercosur tariff preference (i.e., the Common External tariff), \( N^M_{c,t} \) is the vector of information flows between other Mercosur members and ROW export markets; and \( S^M_{c,t-1} \) is the past market share of a Mercosur member in all other Mercosur markets.

3. Is Mercosur an Export Platform for Its Members?

The basic empirical model draws on Nicita and Olarreaga (2000). They show within a simple model with linear demands, constant marginal transport and production costs, and internationally segmented markets that in the presence of cross-country spillovers on the demand or supply side, the market equilibrium implies that exports of product \( p \) to country \( c \) at time \( t \) (denoted \( x_{p,c,t} \)) are a function of the size of country \( c \) total import demand for this product (denoted \( \alpha_{p,c,t} \)), distance between the Mercosur exporter and country \( c(d_{c}) \), the past market share of the Mercosur member in country \( c \) (denoted \( s_{p,c,t-1} \)) and the export information spillover received by country \( c \) from all other trading partners of the Mercosur member regarding its export performance (again, measured as the information flow weighted sum of past market shares in each of these other markets).

In our context, we need to differentiate export information spillovers depending on whether they originate in other Mercosur members or in ROW export markets. We also need to include the platform effect variable described above.

Other important determinants of exports are also included in the empirical specification. First, cultural links may affect our estimates and to capture this we introduce gravity, which is the total exports of the source country to country \( c \) (purged of product \( p \) exports to country \( c \)). It can also be interpreted as capturing all the explanatory variables of a gravity equation for each Mercosur member (including regional trade agreements with ROW countries).

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3 \( T \) is equal to zero for all years before 1991 when Mercosur was created. After 1991 it is equal to the Common External Tariff that was implemented in 1996, which is a proxy for the extent of internal preferences assuming that countries external tariffs were not too different from the Common External Tariff and that extra-Mercosur imports was all duty-free.
Second, comparative advantage aspects may also affect our measure of information spillovers (in some products our source country may be a “natural exporter” and in others not) and to control for this we introduce \( ca \), which is defined as total exports to the ROW, denoted \( ca \) (again purged). Third, we also control for possible within sector (and country) externalities by taking the share of bilateral exports at the industry level on total imports of country \( c \) at the industry level and denote it \( industry \). Fourth, we include the Common External Tariff (\( CET \)) as an explanatory variable.

Finally, the export equation to be estimated needs to take into account the non-existence of Mercosur exports in many products across trading partners, which leads to a large presence of zeroes in the endogenous variables (exports to the ROW). To correct this bias introduced by censoring we use a Tobit technique:

\[
\begin{aligned}
x_{p,c,t}^* &= \begin{cases} 
  x_{p,c,t}^* & , \text{if } x_{p,c,t}^* > 0 \\
  0 & , \text{if } x_{p,c,t}^* \leq 0
\end{cases} \\
\text{and } x_{p,c,t}^* &= \theta^{Row} N_{c,t-1}^{Row} + \theta^M N_{c,t-1}^M - S_{p,t-1}^{Row} + \theta^T p^M - N_{c,t-1}^{Row} - S_{p,t-1}^M + \\ &\alpha_{p,c,t} + \beta_0 d_c + \beta_1 x_{p,c,t-1} + \beta_2 T_{p,t}^M + \beta_1 gravity_{c,t} + \\
&\beta_4 ca_{p,t} + \beta_5 industry_{c,t} + time_t + \mu_{p,c,t}
\end{aligned}
\]

where \( N_{c,t}^{Row} \) is a vector of the share of newspaper trade between country \( c \) and ROW countries; \( S_{p,t-1}^{Row} \) is a vector of the Mercosur member past market shares in each ROW countries. Their inner product captures the export information spillovers generated in the Row. Time \( t \) is a time dummy that controls for any time specific variable (e.g., exchange rates) and \( \mu_{p,c,t} = v_c + u_{p,c,t} \) is an error term containing a random country effect \( (v_c) \) to control for other export market countries characteristics.\(^4\) The data and variable construction is discussed in the appendix.

Thus, \( \theta^M > 0 \) will capture information spillovers generated within Mercosur country markets, whereas \( \theta^{Row} > 0 \) captures the effect of Mercosur member’s performance in ROW countries on their exports to other third countries; \( \theta^P > 0 \) capture the Mercosur “platform” effect associated with tariff preferences.

3.1 Econometric results

Results of the estimation of equation (1) are provided in Table 1 for each Mercosur member separately. Interestingly, information spillovers generated in ROW markets seem to be an important determinant of exports in all four countries (see first row in Table 1). Thus, the export performance in one third market, does

\(^4\) Fixed effect may yield inconsistent estimates when using a tobit method or in the presence of spatial effects (i.e., spillovers across countries) as discussed by Anselin (1988).
seem to affect future export performance in other third markets. Also interestingly, the regional market seems to be an important generator of information spillovers only for the smallest members of Mercosur (Paraguay and Uruguay), but not for Brazil and Argentina (see the second row). This makes sense: large (and perhaps more advanced) countries constitute a larger share of the regional market and may have established more of a reputation and export links in the ROW.

TABLE 1
MEASURING MERCOSUR PLATFORM EFFECT

<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Brazil</th>
<th>Paraguay</th>
<th>Uruguay</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N^{Row}_{p,t}$</td>
<td>16093**</td>
<td>14159**</td>
<td>13757**</td>
<td>39529**</td>
</tr>
<tr>
<td>Row information spillover</td>
<td>(2634)</td>
<td>(5171)</td>
<td>(4123)</td>
<td>(6304)</td>
</tr>
<tr>
<td>$M^{M}_{p,t}$</td>
<td>6159</td>
<td>6145</td>
<td>3871**</td>
<td>6457**</td>
</tr>
<tr>
<td>Regional information spillover</td>
<td>(4260)</td>
<td>(6281)</td>
<td>(943)</td>
<td>(1356)</td>
</tr>
<tr>
<td>$\Psi_{p,t}^{M}$</td>
<td>-103243</td>
<td>128404</td>
<td>68007**</td>
<td>-43380*</td>
</tr>
<tr>
<td>Mercosur Platform effect</td>
<td>(58162)</td>
<td>(65239)</td>
<td>(24410)</td>
<td>(20825)</td>
</tr>
<tr>
<td>CET</td>
<td>-4901**</td>
<td>17964**</td>
<td>-2992**</td>
<td>7500**</td>
</tr>
<tr>
<td>Common External tariff</td>
<td>(307)</td>
<td>(3913)</td>
<td>(435)</td>
<td>(1057)</td>
</tr>
<tr>
<td>$\alpha_{p,t}^{M}$</td>
<td>0.004**</td>
<td>0.004**</td>
<td>0.26E-03**</td>
<td>0.1E-03**</td>
</tr>
<tr>
<td>Size of market</td>
<td>(0.0004)</td>
<td>(0.0003)</td>
<td>(0.5E-05)</td>
<td>(0.3E-04)</td>
</tr>
<tr>
<td>$d_{c}$</td>
<td>-0.25**</td>
<td>-0.41**</td>
<td>-0.05**</td>
<td>-0.17**</td>
</tr>
<tr>
<td>Distance</td>
<td>(0.001)</td>
<td>(0.03)</td>
<td>(0.005)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>$s_{p,c,t-1}$</td>
<td>17835**</td>
<td>40389**</td>
<td>10227**</td>
<td>29315**</td>
</tr>
<tr>
<td>Own-market effect</td>
<td>(1495)</td>
<td>(2538)</td>
<td>(2199)</td>
<td>(5576)</td>
</tr>
<tr>
<td>$c_{a}$</td>
<td>0.005**</td>
<td>0.01**</td>
<td>0.08**</td>
<td>0.04**</td>
</tr>
<tr>
<td>Comp. Advantage</td>
<td>(0.0004)</td>
<td>(0.001)</td>
<td>(0.007)</td>
<td>(0.003)</td>
</tr>
<tr>
<td>Gravity</td>
<td>0.012**</td>
<td>0.010**</td>
<td>0.09**</td>
<td>0.04**</td>
</tr>
<tr>
<td>Gravity type effect</td>
<td>(0.0008)</td>
<td>(0.001)</td>
<td>(0.008)**</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Industry</td>
<td>4398**</td>
<td>8370**</td>
<td>5322**</td>
<td>19668**</td>
</tr>
<tr>
<td>2-digit Industry spillovers</td>
<td>(1216)</td>
<td>(1686)</td>
<td>(1605)</td>
<td>(5547)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3108**</td>
<td>-12390**</td>
<td>-2290**</td>
<td>-5247**</td>
</tr>
<tr>
<td>(308)</td>
<td>(1185)</td>
<td>(195)</td>
<td>(499)</td>
<td></td>
</tr>
<tr>
<td>Time dummies</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Pseudo-$R^2$</td>
<td>0.03</td>
<td>0.02</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td># observations</td>
<td>89944</td>
<td>91368</td>
<td>65826</td>
<td>85536</td>
</tr>
<tr>
<td>% censored obs.</td>
<td>0.59</td>
<td>0.35</td>
<td>0.94</td>
<td>0.87</td>
</tr>
</tbody>
</table>

The estimation procedure is Tobit. Figures in brackets are standard errors corrected for country-specific random effects and heteroscedasticity using a Generalized-Huber correction procedure; ** is for significance at 1 percent; * is for significance at 5. The $R^2$ is McFadden pseudo-$R^2$. 

a
Finally, the results reported in the third row do not support a platform effect associated with tariff preferences, except for Paraguay. The coefficient of $T_{p}^{MN_{1}M_{p}(t-1)}$ is statistically insignificant for Argentina and Brazil suggesting that there has been no platform effect. In the case of Uruguayan exporters, a negative and statistically significant coefficient is found. This suggests that the extent of information spillovers generated in other Mercosur markets was reduced by intra-block tariff preferences. The exception is Paraguay, which appears to have obtained reputational benefits from exporting to its larger and more advanced partners in Mercosur.\(^5\)

4. **Concluding Remarks**

It has often been brought forward, when discussing the benefits of regional integration in Latin America, that regional trade preference may allow regional producers to develop the necessary experience, reputation and know-how to increase their exports to the ROW. This paper searches for evidence of a “platform” effect associated with regional trade preferences granted among Mercosur members.

Empirical results suggest that information spillovers generated in the regional market have helped the smallest members of Mercosur penetrate more distant markets. However, this effect is associated with regional trade preferences only in the case of Paraguayan exporters. For Uruguayan exporters, the regional trade preferences have, if anything, reduced the amount of positive information spillovers that helped them penetrate more distant markets, echoing the concerns expressed by Mr. Guidotti quoted at the beginning of this paper. One reason may be that preferential access may actually provide uncompetitive firms the opportunity to export low-quality products within the regional market. If ROW exporters cannot observe the quality of individual exporters, but only the average quality of exporters from one country, then the entry of these low quality exporters in the regional market may hurt the prospects of other high quality regional firms to export to the ROW.

In sum, regional markets can indeed be used as a platform for exporters (as observed in the case of Paraguay and Uruguay exporters), but trade policy in the sense of regional tariff preferences does not necessarily enhance the role of the region as an export platform, and it can actually hurt the ability of regional exporters to penetrate more distant markets.

\(^5\) All other variables have the expected sign and are statistically significant.
REFERENCES


APPENDIX: DATA AND VARIABLE CONSTRUCTION

Trade data is obtained from United Nations Comtrade Data Base for the period 1980-1998 at the 3-digit level of the SITC classification. For each of the Mercosur exporting countries we only use data on products that have been exported at least once during the period 1980-1998 to at least one market. The ROW is composed of 54 countries that represent on average over the period more than 85 percent of ROW trade. All trade data is adjusted to 1997 US dollars (units are thousands of 1997 US dollars). The bilateral distance matrix is calculated using the geodesic distance between capitals of different countries.

The variables are constructed as follows:

\[ \text{gravity}_{c,t} = \sum_{p} x_{p,c,t} - x_{p,c,t} ; \]

\[ \text{ca}_{p,t} = \sum_{c} x_{p,c,t} - x_{p,c,t} ; \]

\[ \text{size}_{c,p,t} = m_{c,p,t}^{T} - x_{p,c,t} ; \]

where \( m_{c,p,t}^{T} \) is defined as total imports of country \( c \) of product \( p \) at time \( t \);

\[ \text{industry}_{p,c,t} = \frac{\sum_{p \in 2d} x_{p,c,t-1} - x_{p,c,t-1}}{\sum_{p \in 2d} m_{p,c,t-1}^{T} - m_{p,c,t-1}^{T}} ; \]

where 2d includes all the tariff lines within the same 2-digit category of the SITC classification;

\[ s_{c,p,t-1} = \frac{x_{c,p,t-1}}{m_{c,p,t-1}^{T}} ; \]

The element \( j \) of the vector of information flows, \( N_{c,t-1} \), are defined as:

\[ n_{c,j,t-1} = \frac{\Psi_{c,j,t-1}}{\sum_{j} \Psi_{c,j,t-1}} \]

where \( \Psi_{c,j,t-1} \) is the bilateral trade flow (exports + imports) of newspapers between country \( c \) and country \( j \). Finally,

\[ N_{c,t-1} \cdot S_{p,t-1} = \sum_{j \neq c} s_{j,p,t-1} n_{c,j,p,t-1} \]