Comments

Jaume Ventura: This paper asks the following: could a regional trade agreement with a large and volatile partner reduce the welfare of the smaller partners? The question is prompted by the authors' view that there is widespread public perception that Mercosur is making stable Argentina, Paraguay, and Uruguay too vulnerable to real devaluations in volatile Brazil. Regardless of whether this stylized description of Mercosur is correct (recent events suggest that Argentina is not the stable trading partner the paper portrays), I find this research question to be of great interest.

To study this problem, the authors adopt a standard model with two types of goods: a set of traded goods whose price is determined in world markets and a set of regional goods that cannot be traded with the rest of the world. Before the creation of Mercosur, regional goods were not traded within the region, either, and their price was determined by domestic conditions. Each country therefore had its own real exchange rate (that is, the price of regional goods relative to traded ones). After the creation of Mercosur, regional goods can be traded within the region, and their price is determined by Mercosur-wide conditions. This results in a single real exchange rate for all Mercosur countries. Because Brazil is so large relative to Argentina, Paraguay, and Uruguay, this common real exchange rate is basically determined by the volatile conditions of the Brazilian economy. The key issue for Argentina, Paraguay, and Uruguay is whether the static gains from trade integration can be offset by the costs associated with an increase in real exchange rate volatility.

Before the creation of Mercosur, each country could choose how to distribute its consumption of traded goods over time, but it was forced to consume its own production of regional goods. For simplicity, assume the two types of goods are neither complements nor substitutes.[1] Positive (negative) shocks to the production of traded goods led to surpluses (deficits) in the current account, but they had no effects on the real exchange rate.

1. This assumption does not affect the results below.

Positive (negative) shocks to the production of regional goods led to depreciations (appreciations) of the real exchange rate, but they had no effects on the current account. These patterns are identical in all four countries. However, since Brazil has larger and more volatile shocks, its real exchange rate and current account were also more volatile than those of Argentina, Paraguay, and Uruguay.

After the creation of Mercosur, the four countries as a group must still consume their own production of regional goods. But now there is the added possibility of redistributing over time the consumption of regional goods within the region. Since countries can still choose their autarky allocation, this relaxation of the constraint on intertemporal trade cannot decrease the welfare of any of the countries involved. This result provides a straightforward and clear answer to the question that motivates the paper. Surprisingly, the authors do not discuss it, even though it follows quite directly from their assumptions.

To what extent can we be confident that welfare gains are ensured for Argentina, Paraguay, and Uruguay regardless of the volatility of the real exchange rate induced by Brazil? In arguing that joining Mercosur must be welfare improving, I implicitly assumed that markets work well and that countries are small in the usual sense that they cannot affect their terms of trade. Relaxing one or both of these assumptions could, in principle, overturn the argument. To show this, I now sketch one suggestive example of what can go wrong if markets do not work well.[2]

Assume insurance markets are not well developed, such that producers cannot diversify their production risk. This seems a reasonable description of the financial systems of Argentina, Brazil, Paraguay, and Uruguay. In this environment, an increase in the volatility of the real exchange rate reduces the welfare of producers of traded goods, as the price of their consumption basket becomes more volatile. It can also reduce the welfare of the producers of regional goods. Before the creation of Mercosur, shocks to the production of regional goods led to countervailing movements in the real exchange rate that helped stabilize incomes. After the creation of Mercosur, these shocks no longer have effects on prices, and the incomes of the producers of regional goods became more volatile. This effect is magnified if a volatile trading partner such as Brazil adds exogenous volatility to the real exchange rate. The

2. This example is inspired by Newbery and Stiglitz (1984).

creation of Mercosur therefore makes everybody worse off. If Brazil is sufficiently volatile and if insurance markets are not well developed, then the creation of Mercosur could actually lead to a Pareto inferior outcome in Argentina, Paraguay, and Uruguay.

Are these effects important enough to make Mercosur undesirable? I find this very unlikely. Both the model in the paper and the example presented here leave out the two most important benefits from Mercosur: the creation of trade and bargaining power. By lowering tariffs, Mercosur allows countries in the region to specialize and exploit their comparative advantage. By creating a single or unified trade policy for the whole region, Mercosur increases the bargaining power of the member countries in trade negotiations with the rest of the world. These benefits for Argentina, Paraguay, and Uruguay are likely to outweigh any cost that might arise from an increase in the volatility of the real exchange rate.

Laura Alfaro: Overall, I think the authors of this paper raise issues that are extremely pertinent not only for the Mercosur union, but also for understanding regional integration among developing countries in general. I divide my comments into two broad sections. I first summarize the paper. Then, I present some clarifying comments, offer suggestions for future work, and discuss some of the policy issues raised by the authors.

The main objective of the paper is to understand the interdependence and interaction among the Mercosur countries, which seem to be going through some tough challenges right now. The authors start by comparing this regional integration project with the other major trading blocs: NAFTA and the European Union. The paper establishes that what differentiates Mercosur is that the dominant country, Brazil, is quite unstable. Next, the paper tackles the macroeconomic vulnerability problem of the small countries (Argentina, Paraguay and Uruguay) by introducing the concept of regional goods, or goods that are tradable within the region, but largely nontradable with the rest of the world. The main conclusion of this section is that when assessing the vulnerability of the small countries, what matters is not how much each country trades with Brazil, but how much they trade in regional goods (that is, their Mercosur exposure).

As the authors note, Brazil and Argentina began to negotiate the Mercosur project in the mid-1980s, in spite of the failure of previous trade integration attempts. This was an effort to increase growth and competitiveness after a period of sharp trade contraction between the two countries.[1] The negotiations stalled, however, primarily as a result of continued economic instability in both countries. The project was revived in 1989 when the end of the Cold War brought the threat that Eastern Europe would draw investments away from Latin America. Furthermore, the region faced what seemed to be a world of strengthening trading blocs and bilateral agreements, as the United States abandoned its long-standing policy of multilateralism and began entering into preferential trade agreements.[2] Changing international conditions coincided with political changes in Brazil and Argentina: Fernando Collor de Mello and Carlos Menem, both elected in 1989, pushed their countries toward liberalization and free markets. In August of that year, Paraguay and Uruguay were invited to become members of Mercosur. The Mercosur integration process became official in March 1991 with the signing of the Treaty of Asunción. The treaty provided for the creation of a common market between Argentina, Brazil, Paraguay, and Uruguay by 31 December 1994, together with the gradual coordination of macroeconomic policies.

This integration has taken place (some would say succeeded) despite macroeconomic turbulence in the member countries, as noted by Eichengreen.[3] Just after the free trade area was formed, Argentina launched its Convertibility Plan. The Argentine real exchange rate appreciated against the Brazilian currency, and the Argentine market was flooded with Brazilian goods. In November 1992, Argentina imposed a tax on imports, which targeted Brazilian exports, in particular. The Brazilian economy boomed after Brazil launched the Real Plan in 1994, and the real appreciated against the peso. In 1995, Brazil imposed import quotas and other measures to curb the surge in Argentine imports. Roles changed once again after the 1999 real devaluation—the Brazilian real depreciated against the Argentine peso and Brazilian products became more competitive. However, this time the Brazilian economy boomed while Argentina sank into deep recession. Argentina raised barriers against Brazilian goods. Brazil struck back by imposing restrictions against Argentina's imports.[4]

The main problem with the Mercosur integration project seems to be this excessive macroeconomic instability. Hyperinflation, real exchange rate appreciation, and recession tend to increase the tension within the

1. See Manzetti (1993).
2. See Krueger (1998, introduction); Bhagwati (1999).
3. See Eichengreen (1998).
4. Mercosur Report (2000).

union and reduce the support for integration. One can argue, however, that perhaps the Mercosur countries could not really avoid importing each other's bad policies even if they were not integrated in a regional bloc. On the other hand, the work of Frankel, Stein, and Wei, as well as others quoted by Bevilaqua, Catena, and Talvi, indicates that Mercosur trade is far greater than what can be explained by a standard gravity model.[5] Herein lies the relevance of the paper: volatility should be a key component of the ongoing debate on the advantages and disadvantages and the overall welfare effects of these agreements, in addition to the diversion versus creation issues.[6]

I have one brief comment on the modeling strategy. The authors' main concern is the vulnerability effect stemming from regional goods, that is, goods that are produced and sold in the region mostly because of the existence of tariffs and other types of incentives.[7] As they write in the conclusion, "the smaller trade partners, who sell at higher prices in Brazil, have low incentives to adopt production technologies that would make them competitive at world prices. . . . This behavior tends to regionalize certain categories of goods and services." However, if the authors want to assess the welfare effects of reducing these artificial incentives, the modeling strategy of including regional versus nonregional goods in the utility function may not be the most appropriate.

The results all come from a setup with no uncertainty. Since the main problem in Mercosur seems to be the excessive volatility, it would be relevant to examine how the results might differ under a stochastic version of the model, as excessive volatility in the regional goods sector might shift production and consumption patterns. Moreover, the assumption of perfectly mobile labor within countries may be somewhat questionable for a country that has unemployment rates of more than 10 percent; changing this assumption may also change the policy recommendations. Finally, it would be interesting to assess how long it takes to adjust to these regional

5. Frankel, Stein, and Wei (1995).

6. Viner (1950).

7. Most of these incentives were created under the Mercosur accord, but some were not. In addition, some regional goods are independent of the Mercosur accord. For instance, the Itaipu power plant predates Mercosur, and while tourism among these four countries fluctuates with the macroeconomic conditions, it does not seem to depend on the Mercosur integration project. Destroying the Mercosur integration agreement would have no direct effect on these goods and services.

shocks, in addition to estimating the magnitude of the adjustment; this might imply different policy responses, as well.

A further point should be considered for possible future research. Brazil currently seems to be suffering some negative effects of a possible default in Argentina. This might provide some evidence that Brazil can also import vulnerability from Argentina, despite the size differences. This also suggests that other channels beyond trade, such as capital flows, can create vulnerability in the region, as suggested in the paper.

References

Abreu, Marcelo de Paiva, and Afonso S. Bevilaqua. 1995. "Macroeconomic Coordination and Economic Integration: Lessons for a Western Hemisphere Free Trade Area." Discussion Paper 340. Pontificia Universidad Católica do Rio de Janeiro, Department of Economics.

Baldwin, Robert, and T. Murray. 1977. "MFN Tariff Reductions and Developing Country Trade Benefits under the GSP." *Economic Journal* 87(345): 30–46.

Bergara, Mario, Daniel Dominioni, and Jorge Licandro. 1994. "La enfermedad uruguaya." Working Paper. Montevideo: Banco Central del Uruguay.

Bevilaqua, Afonso S., Fernando Blanco, and Ernesto Talvi. 2000a. "Measuring Trade in Regional Goods: The Case of Mercosur." Centro de Estudios de la Realidad Económica y Social (CERES) and Pontificia Universidad Católica do Rio de Janeiro. Mimeographed.

———. 2000b. "Trade Integration and Macroeconomic Vulnerability: What Is Different about Mercosur?" Centro de Estudios de la Realidad Económica y Social (CERES) and Pontificia Universidad Católica do Rio de Janeiro. Mimeographed.

Bevilaqua, Afonso S., and Ernesto Talvi. 1999. "Macroeconomic Interdependence in Mercosur." World Bank Project Report. Washington: World Bank.

Bhagwati, Jagdish. 1999. "Regionalism and Multilateralism: An Overview." In *Trading Blocs: Alternative Approaches to Analyzing Preferential Trade Agreements,* edited by Jagdish Bhagwati, Pravin Krishna, and Arvind Panagariya. MIT Press.

CEI (Centro de Economía Internacional). 1999. "Panorama del Mercosur, noviembre 1999." Buenos Aires: Secretaria de Relaciones Económicas.

Chang, Won, and L. Alan Winters. 1999. "The Price Effects of Regional Integration: Non-Member Reaction to Mercosur." Policy Research Working Paper 2157. Washington: World Bank.

De Brun, Julio, and Gustavo Michelín. 1994. "Evaluación de impacto de la armonización arancelaria en el Mercosur." Centro de Estudios de la Realidad Económica y Social (CERES). Mimeographed.

Eichengreen, Barry. 1998. "Does Mercosur Need a Single Currency?" Working Paper 6821. Cambridge, Mass.: National Bureau of Economic Research.

FIEL (Fundación de Investigaciones Latinoamericanas). 1992. *Argentina y el Mercosur: una respuesta a la iniciativa de las Américas*. Buenos Aires: Editorial Manantial.

Frankel, Jeffrey, Ernesto Stein, and Shang-Jin Wei. 1995. "Trading Blocs and the Americas: The Natural, the Unnatural, and the Super-Natural." *Journal of Development Economics* 47(1): 61–95.

IDB (Inter-American Development Bank). 2000. *MERCOSUR Report,* vol. 6. Buenos Aires.

Krueger, Anne O., ed. 1998. *The WTO as an International Organization.* University of Chicago Press

Laird, Sam. 1997. "MERCOSUR: Objectives and Achievements." World Trade Organization (WTO). Mimeographed.

Manzetti, Luigi. 1993. "The Political Economy of MERCOSUR." *Journal of Interamerican Studies and World Affairs* 35(4): 101–41.

Michelín, Gustavo. 1993. "Cuantificación de los efectos en el comercio a las preferencias Argentina y Brasil en el Mercosur." Centro de Estudios de la Realidad Económica y Social (CERES). Mimeographed.

Newbery, David M. G., and Joseph E. Stiglitz. 1984. "Pareto Inferior Trade." *Review of Economic Studies* 51(1): 1–12.

Nin, Alejandro, and María I. Terra. 1998. "Mercosur: un camino a la apertura o la consolidación de un bloque cerrado." Banco Central del Uruguay *Revista de Economía* 5(2): 95–122.

Ostry, Jonathan D., and Carmen Reinhart. 1992. "Private Savings and Terms of Trade Shocks." IMF Staff Papers. Washington: International Monetary Fund (IMF).

Porta, Fernando. 2000. "El Impacto de las preferencias comerciales sobre el comercio intrarregional: análisis del Mercosur y los acuerdos bilaterales de Chile." Study 127. Montevideo: Secretaría General de la Asociación Interamericana de Integración (ALADI).

Reinhart, Carmen, and Carlos A. Végh. 1995. "Nominal Interest Rates, Consumption Booms and Lack of Credibility: A Quantitative Examination." *Journal of Development Economics* 46(2): 375–78.

Talvi, Ernesto. 1995. "A 'Big Brother' Model of a Small Open Economy: The Impact of Argentina on Uruguay's Business Cycle." Ph.D. dissertation. University of Chicago.

Terra, María I. 1999. "Uruguay en el Mercosur: perspectivas de comercio intraregional." Banco Central del Uruguay *Revista de Economía* 6(2): 189–242.

Viner, Jacob. 1950. *The Customs Union Issue.* New York: Carnegie Endowment for International Peace.

Yeats, Alexander. 1997. "Does Mercosur's Trade Performance Raise Concerns about the Effects of Regional Trade Arrangements?" Policy Research Working Paper 1729. Washington: World Bank.