Policy, economics and trade with South America[1]

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Introduction

My remarks are divided into three parts. First, I will provide some historical perspective on the long-term trends in policy for countries in the region. Second, I will provide some data on trends in the agricultural sector of the region in the post-World War II period. Third, I will take a look to the future and speculate a bit about some of the major driving forces that may be driving developments in the region. At the end I will have some concluding comments.

The title that was given me referred only to South America. However, for much of the analysis I will add Mexico to the countries of Latin America. Mexico is a fairly large country, and is of particular interest because of Nafta, the North American Free Trade Agreement.

Background on economic policy since WW II

A review of the dominant economic policy in the region since the end of World War II is important because the failure to understand the general policy regime that prevailed in the region has kept us from understanding our own competitive position, not only in the region, but in the international economy more generally.

Most countries in the region practiced import-substituting industrialization in the period immediately following the end of the war. That was the policy recommend by Raul Prebisch, an Argentine-cum-diplomat who was much respected throughout the region. The policies carried his name, and were pervasive throughout the region, although with special emphasis in Argentina, Brazil and Mexico (PREBISCH, 1949).

This "package" of macroeconomic policies discriminated severely against the agricultural sector. Prebisch misguidedly thought that an economy could develop only by protecting its industrial or manufacturing sector and by isolating itself from the international economy. The specific policies to develop that economic isolation included high levels of protection for the manufacturing sector, and similarly high levels of taxation of the agricultural sector.

Perhaps even more important than these isolationist policies was a persistent over-valuation of the currencies of these countries. This distortion of the currency is equivalent to a tax on agriculture, and a subsidy on imports. This implicit subsidy on imports led to an interesting and important cycle in the more basic policies and tended to reinforce their direct effects. The subsidy on imports required that the levels of protection on the manufacturing sector be raised, and that in turn induced a further rise in the value of the domestic currency, causing it to be increasingly overvalued. Hence, the persistent over-valuation of currencies was not

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so much an intentional policy, but instead one that countries backed into. The protection of the manufacturing sector induced an increase in the value of the currency, and that in turn induced an increase in protection. It should also be noted that the rise in the value of the currency was equivalent to an increase in the taxation of agricultural exports as well.

This package of macroeconomic policies proved to be grossly inefficient. Economic growth in the region was slow, and as we moved through the 1960s, country after country backed away from this particular policy mix and began to re-integrate themselves back into the international economy.

The effects of these policies on the agricultural sectors in the region were serious. At the same time, they were beneficial to U.S. agriculture. Countries with large agricultural endowments such as Argentina and Brazil effectively tied their own hands and were not able to compete in international markets. I am not sure we in the United States fully appreciated the advantage our agricultural sector had for several decades.

The 1970s brought significant changes in the economic policy environment for most countries in the region. First, there was the quadrupling of petroleum prices in 1973. For countries such as Brazil, which were importing most of their petroleum, that created severe balance of payments problems. The successive devaluations of the U.S. dollar in 1973 and 1974 created more problems for them, for that made the U.S. more competitive in international markets.

The decade of the 1970s was a period of serious mismanagement of U.S. monetary policy, and a gross mismanagement of international economic policy in the attempts to manage the crises created by the quadrupling in petroleum prices. Rather than to balance of payments recommend that the developing countries devalue their currency as a means to deal with their balance of payments problems – the classic remedy, the international community encouraged these countries to borrow from the international community and treat the balance-of-payments as if it were temporary. These recommended policies were widely adopted, and much of the borrowing, and especially among the countries of Latin America, was done on very short terms, and at negative real rates of interest. To be specific, most of the borrowing was on 30-, 60-, and 90-day terms, and at real rates of interest of negative 4 to 6 percent.

The worst was yet to come, however. In 1979 OPEC quadrupled the price of petroleum again. By then Paul Volcker was chairman of the U.S. Federal Reserve Board. The renewed increase in petroleum prices caused the value of the dollar to go into a freefall at the end of 1979. Mr. Volcker was at a conference in Europe at the time. He hurried home from the conference to engineer a 180 degree reversal in U.S. monetary policy. He did that by simply saying that the Fed would no longer print money to finance the debt that the U.S. was incurring on its Federal budget.

The results were crushing to the countries of Latin America, mainly because of their past dependence on import-substituting industrialization policies. U.S. interest rates skyrocketed, and for countries that had borrowed so much on very short terms at negative real rates of interest, that was quite a shock. But that was only part of the story. The rise in real interest rates caused the value of the dollar to rise along with the interest rates. That was probably a more serious shock, for the countries had borrowed cheap dollars, and now they had to repay those loans with expensive dollars. That meant that they had to give up an ever larger share of their national income to service their debt.

This was an enormous shock to the countries of the region, and to other developing countries around the world as well. It led to what has been called the Economic Crisis of the 1980s – a period of sharp declines in GDP for many countries in the region, and significant policy crises.

Although I have long been concerned about the U.S. role in creating this crisis, and with our failure to recognize our role in it, there were good things that came with the crisis that was created. For example, it brought about a lot of reform in economic policy that over time has served most of the countries in the region quite well. Because of the need to earn foreign exchange, policy makers in the region had to open their economies and end their isolationist policies. They also had to better manage the value of their currencies. The consequences of these changes in policy were to increase the competitiveness of agriculture in international markets, and to enable agriculture to contribute more to the growth of their respective economies. In addition, the competitive pressures from abroad caused their manufacturing sectors to become more efficient and thus more competitive.

The remaining element of policy is the science and technology policy for the agricultural sector. Given the general failure to recognize the importance of the agricultural sector as a potential contributor to the economic growth and development of their economies, most countries in the region significantly under-invested in agricultural research. The result was that there was only a limited source of new production technology for the development and modernization of that sector.

There was one exception to this general rule – Brazil. That country began to develop a strong agricultural research capacity in the 1970s, and today is reaping the benefits. Brazil also has pursued reform of macroeconomic policies much more effectively than other countries in the region. It is worth noting that when I published my first book on Brazil in 1971 I concluded that if Brazil were to get its macroeconomic policies right and strengthen its capacity for agricultural research it could become a strong competitor in the international economy. We will see below some of the consequences of their doing just that!

I want to conclude this section by noting that the failure to recognize the importance of both macroeconomic and science and technology policies lulled the United States into a sense of complacency about the potential of its own agricultural sector to compete in the international economy. To emphasize, self-imposed policies in the Latin American countries kept them from being a strong competitor in international agricultural markets or a long time. Those policies eventually changed in some of the important agricultural countries, and the United States is now are suffering the consequences in the form of lost markets.

Trends in the Post-World War II Period

My research assistant, Kari Heerman, collated data on some 11 countries for the purposes of this paper. A discussion of these data will provide a good perspective on what has been happening to agriculture in the region.

• The Fig. 1 shows the value added by agriculture by the eight most important countries in the region from an agricultural perspective. It shows the large size of the Brazilian agricultural sector, and its outstanding performance in the period since 1970. Mexico follows in relative importance, and in relative performance over the same period.

• The Fig. 2 shows the agriculture value added per worker in the 11 countries. This figure indicates that Argentina has the most productive agricultural labor force in the region. More importantly for our purposes, it shows that in a relative sense, Brazil ranks fifth in the region. There is a lot of potential for increases.

• The Fig. 3 shows the trend in agricultural exports for the same 11 countries. The outstanding performance of Brazilian agriculture is apparent, followed by Argentina, Mexico and Chile. Once Argentina reformed its economic policies to stop discriminating against its agricultural sector, it was able to adopt much of its agricultural technology from the United States.

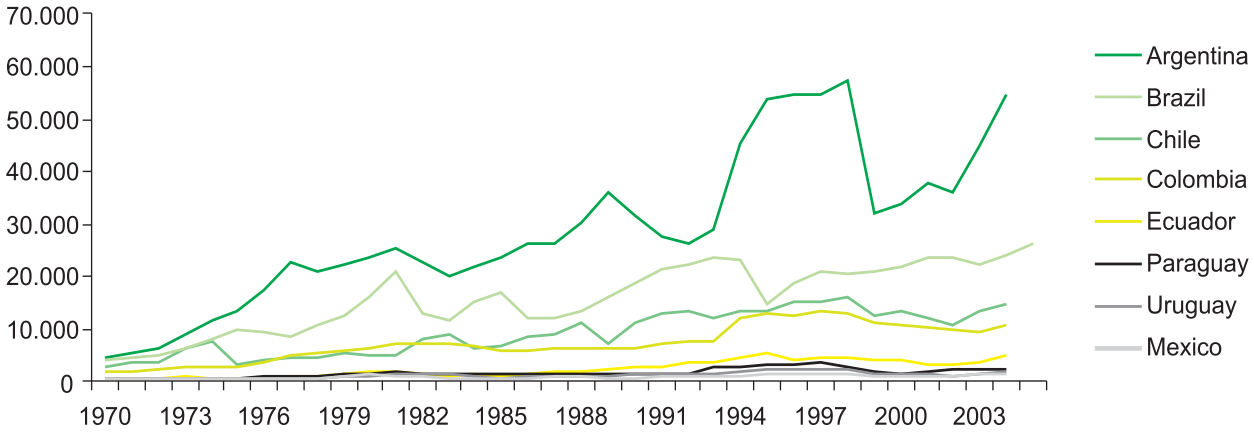

Fig. 1. The value added by agriculture by the eight most important countries in the region from an agricultural perspective (current million US$).

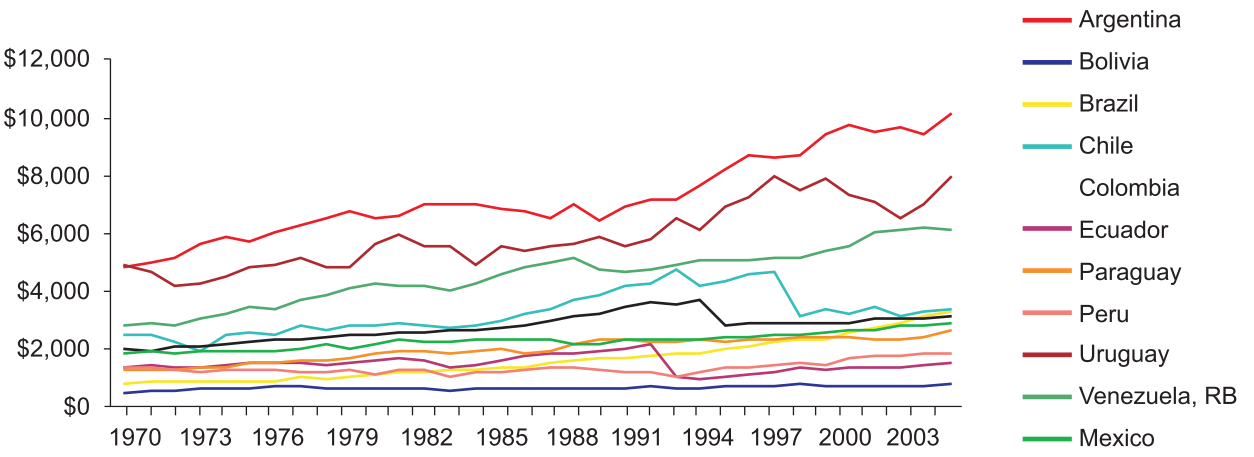

Fig. 2. The agriculture value added per worker in the 11 countries (constant 2000 US$).

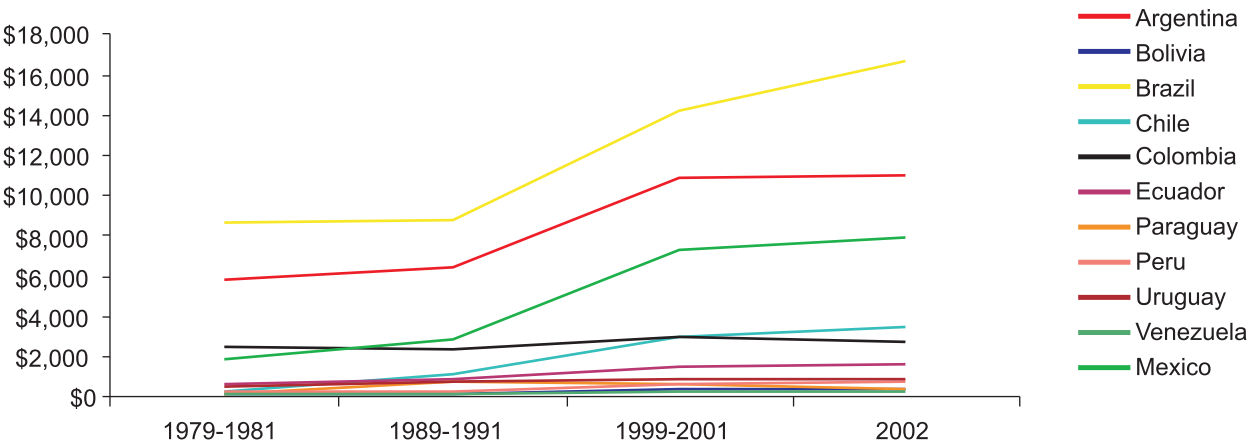

Fig. 3. The trend in agricultural exports for the same 11 countries (US$ million).

• The Fig. 4 shows the trend in agricultural imports over the same period. The strong upward trend is for Mexico, with much of that trend associated with the creation of the North American Free Trade Agreement (Nafta).

• The Fig. 5 provides data on the net agricultural trade balance for those same 11 countries. Both Argentina and Brazil approximately double their net export balance over the period covered, and the two together dominate the continent. The growth in Chile's export balance is even more impressive in a relative sense – a result of the impressive trade and general economic policy reforms in that country. Despite Mexico's excellent export performance, the rapid growth in imports gives it an ever larger net import balance over time.

• The Fig. 6 shows the trends in the shares of total world agricultural exports. The upward trends for Brazil, Argentina, Mexico, and Chile are evident since 1990.

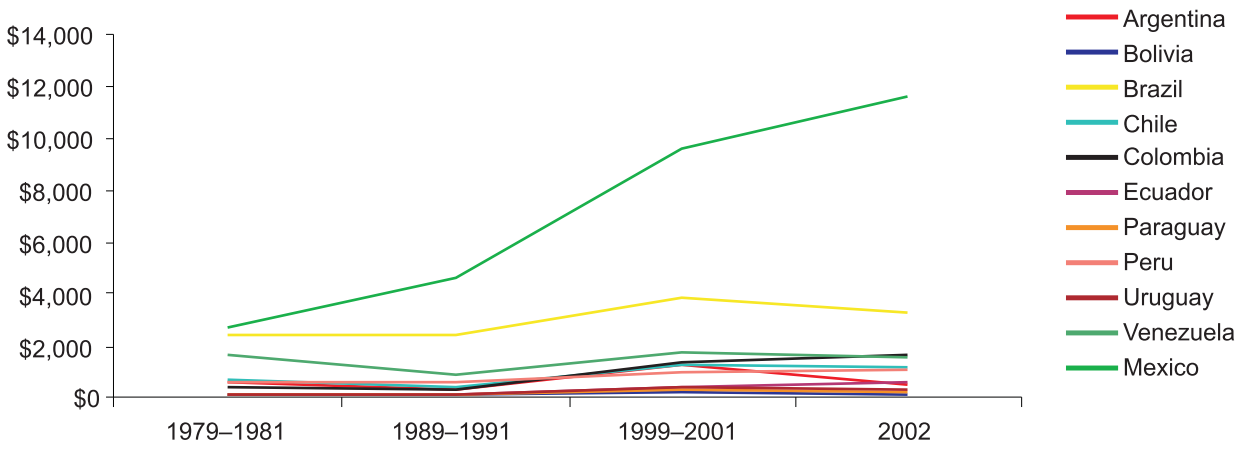

Fig. 4. The trend in agricultural imports over the same period (US$ million).

Countries	1979–1981	1989–1991	1999–2001	2002
Argentina	5,230	6,113	9,581	10,520
Bolivia	-39	56	169	188
Brazil	6,325	6,330	10,351	13,487
Chile	-369	786	1,742	2,304
Colombia	2,095	2,065	1,475	1,121
Ecuador	468	652	1,084	1,146
Mexico	-49	-109	-167	-215
Paraguay	157	41	125	99
Peru	164	628	330	264
Uruguay	344	606	592	662
Venezuela	-1,597	-689	-1,339	-1,262

Fig. 5. Data on the net agricultural trade balance for those same 11 countries (US$ million).

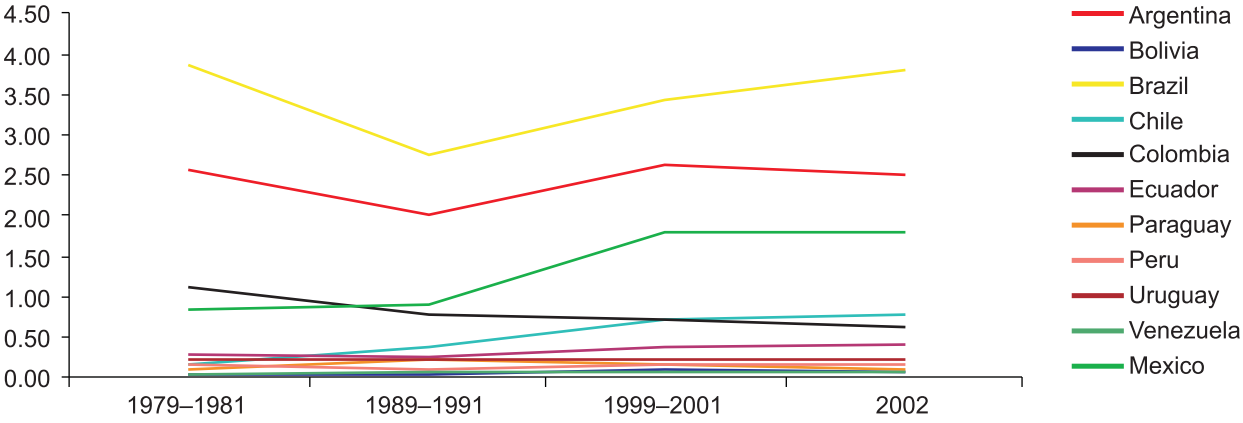

Fig. 6 . The trends in the shares of total world agricultural exports (%).

• The Fig. 7 shows the trends in these same countries' share of world imports. The significant data from that figure is the trend for Mexico, with a significant growth in its share.

• The Fig. 9 shows the exports of fruits and vegetables. On that issue, the performance of Mexico is outstanding. Much of that increase comes after the signing of the North American Free

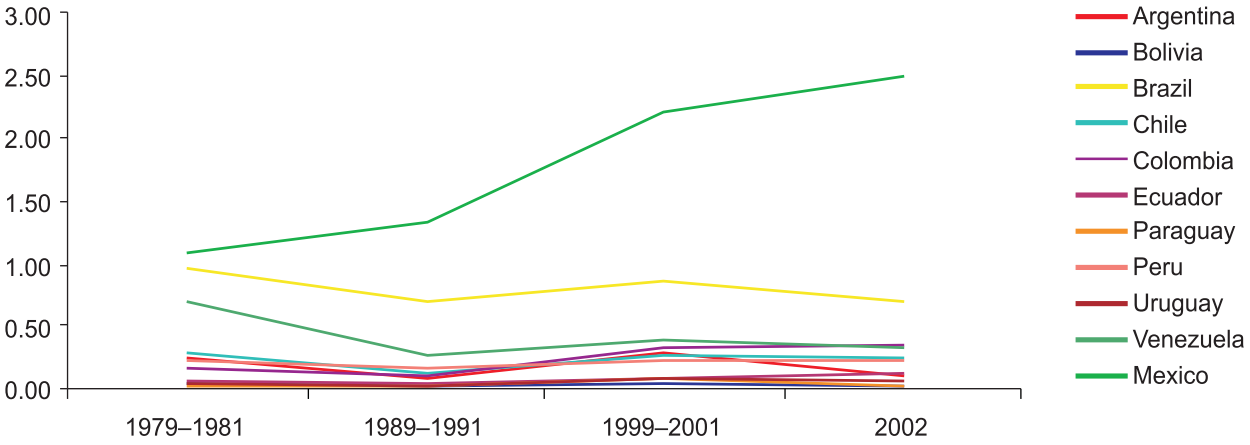

Fig. 7. The trends in these same countries' share of world imports (%).

The next set of figures shows the performance of individual commodities

• The Fig. 8 shows the production of fruits and vegetables. Brazil is dominant in these commodities, followed by Mexico at about half the level of Brazil. The dominant commodity for Brazil is oranges, a large share of which is exported in the form of frozen orange juice.

Trade Agreement, and the reduction in the U.S.'s non-tariff barriers to trade.

• The Fig. 10 provides data on livestock production. Brazil is truly impressive in this sector, especially in the 1980s and 1990s. This includes impressive performances in the poultry, pork, and beef sectors. Brazil quickly became the world's largest exporter of beef just a couple of years ago, and its pork sector is modernizing almost as fast as that in the United States. It has long been a significant exporter of broilers.

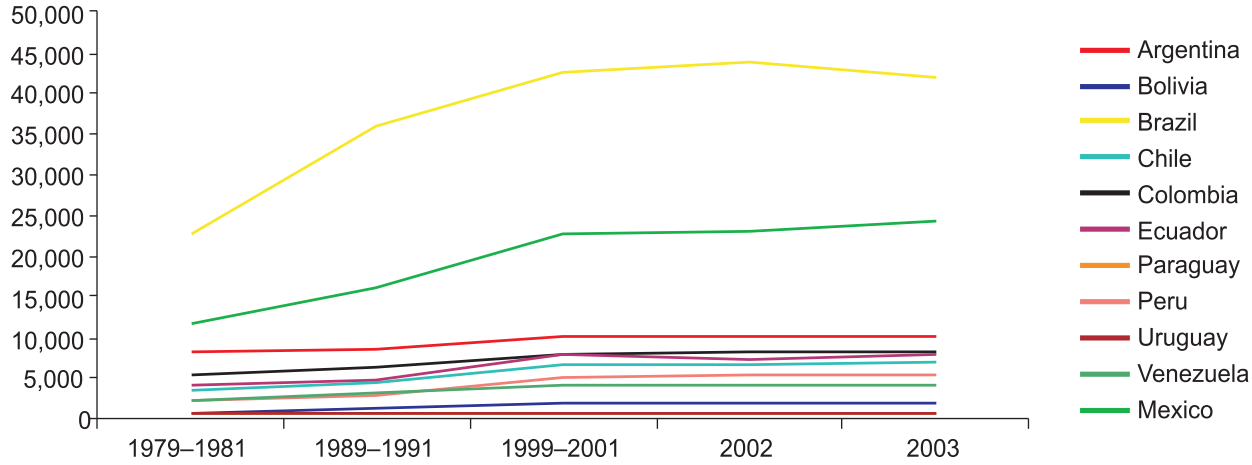

Fig. 8. The production of fruits and vegetables.

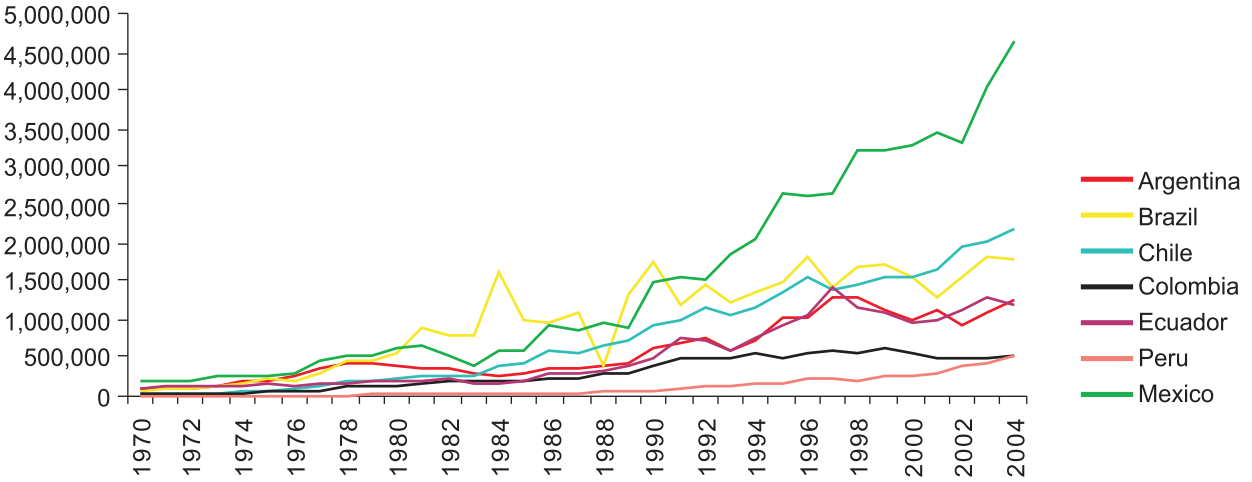

Fig. 9. The exports of fruits and vegetables (1000 US$).

• The trend in production of soybeans is shown in the Fig. 11. The growth for both Argentina and Brazil is truly exceptional, with Brazil leading the way. Its own agricultural research capacity has been unusually productive for this commodity. Argentina imports most of its agricultural technology from the United States.

• Data on the exports of soybeans are presented in the Fig. 12 . There the performance of Brazil is remarkable, and in a relatively short time.

• The Fig. 13 shows that Brazil's share of world soybean exports has grown from about 2 percent of the total in 1983 to 35 percent in 2004!

• The Fig. 14 provides data on the production of sugarcane. Again, the performance of Brazil is unique, and outstanding. This is a reflection in part of Brazil's adoption of ethanol for an automobile fuel back in the 1970s.

• The Fig. 15 provides data on the production of maize. The three major countries are Argentina, Brazil, and Mexico, with Brazil

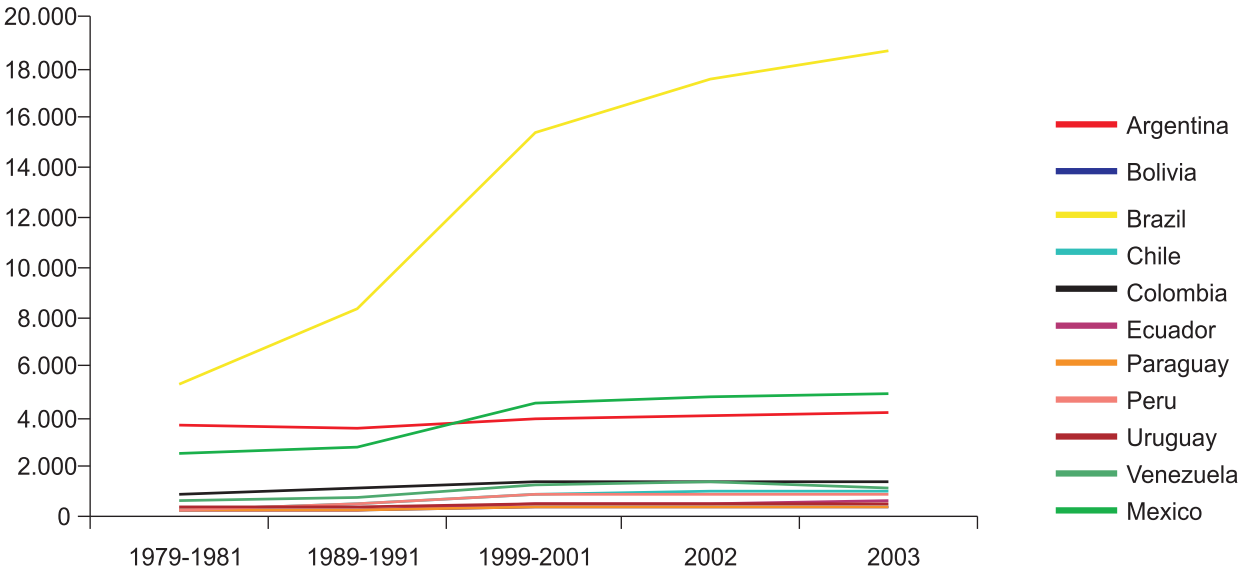

Fig. 10. Provides data on livestock production (1000 tons).

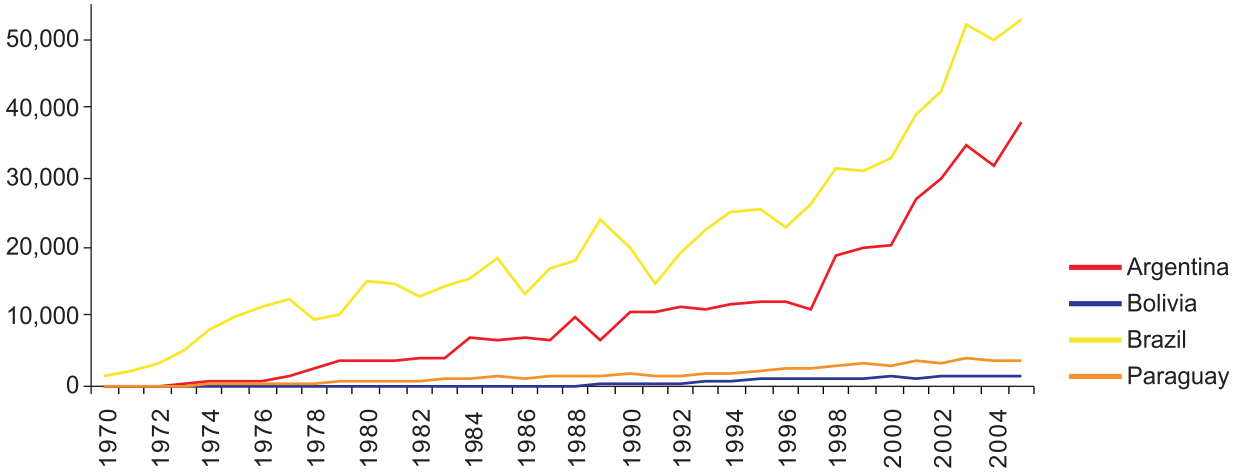

Fig.11. The trend in production of soybeans (1000 tons).

again dominating. The upward trend in Brazil is again noteworthy.

• The Fig. 16 provides data on the exports of maize. In this case, Argentina dominates, although Brazil is again coming on strong in recent years. The growth of Chile is also of interest.

Let me make some concluding comments on these data. First, from a competitive standpoint, Argentina, Brazil and Mexico tend to be the most significant. To date, Argentina tends to have the relative advantage in maize, Brazil the relative advantage in soybeans (and livestock?), and Mexico in fruits and vegetables. There is little room for complacency in any of these cases, however. Brazil at one time had a unique comparative advantage in soybeans, and Argentina a unique comparative advantage in maize. Brazil is now developing varieties of maize that almost meet the same yield

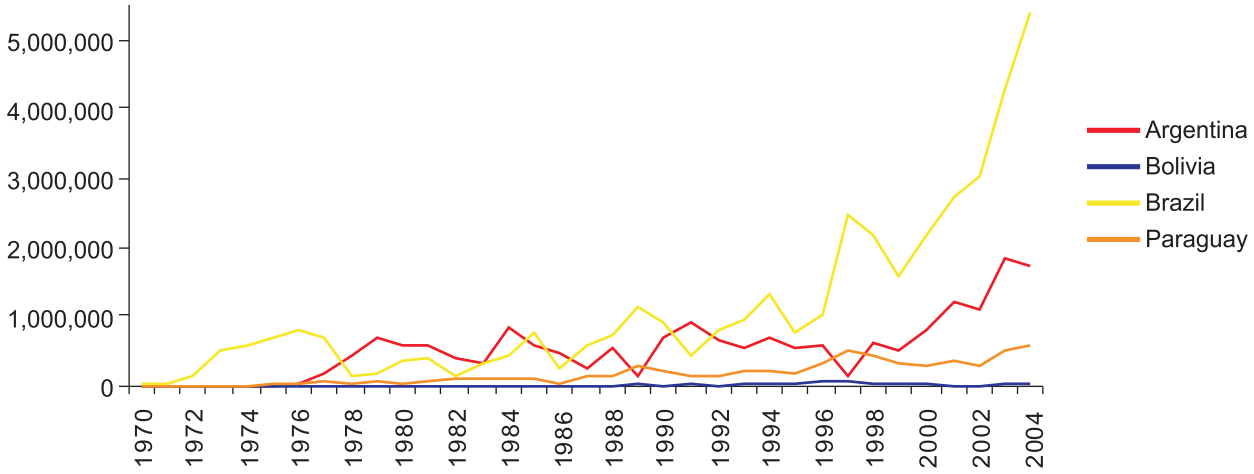

Fig. 12. Data on the exports of soybeans (1000 USD).

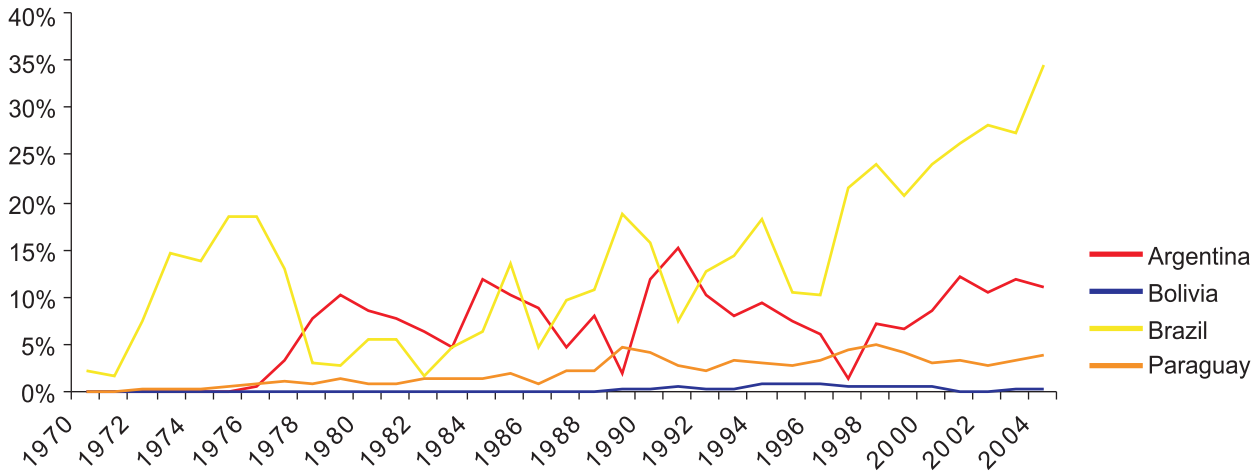

Fig. 13. Brazil's share of world soybean exports.

standards as U.S. maize hybrids. I expect Brazil to grow in relative importance in this export market in the future.

Some may marvel at the remarkable performance of the Brazilian sector. Although my Brazilian colleague, Geraldo Sant'Ana Camargo de Barros, discusses Brazil in more detail (2007) let me emphasize that Brazil is a huge country. It is larger than the United States by a Texas. An important part of its agricultural sector is located in the temperate zone. In addition, it has by far the strongest agricultural research system in Latin America, and probably among all the developing countries. Among its many contributions has been a new technology for using tropical soils, and it has millions of acres of such soils. To complement that technology it has been developing locally adapted varieties of soybeans, maize, and other crops. Its efforts at modernizing the livestock sector are also impressive.

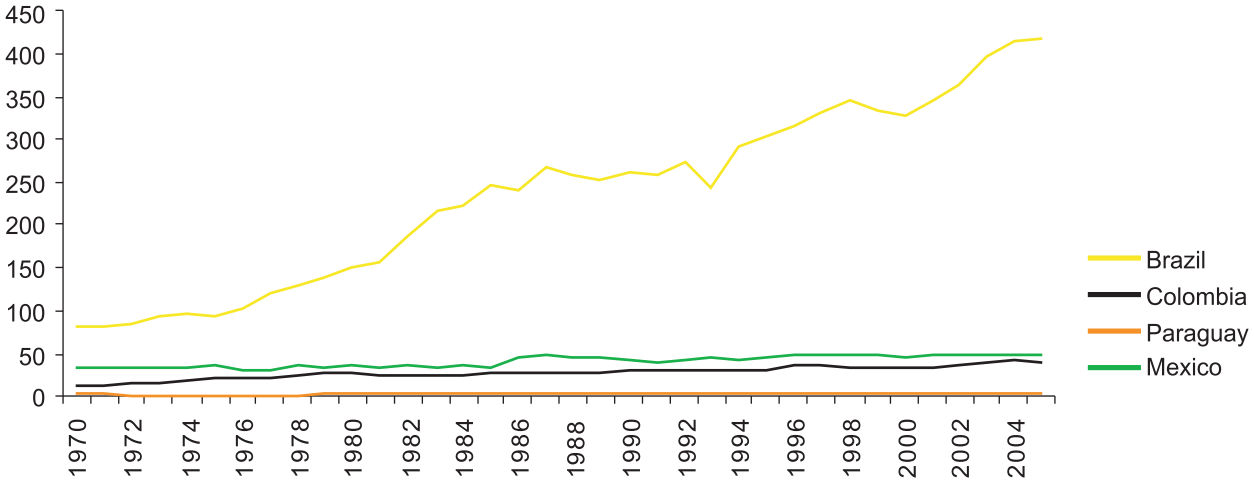

Fig. 14. Data on the production of sugarcane (million tons).

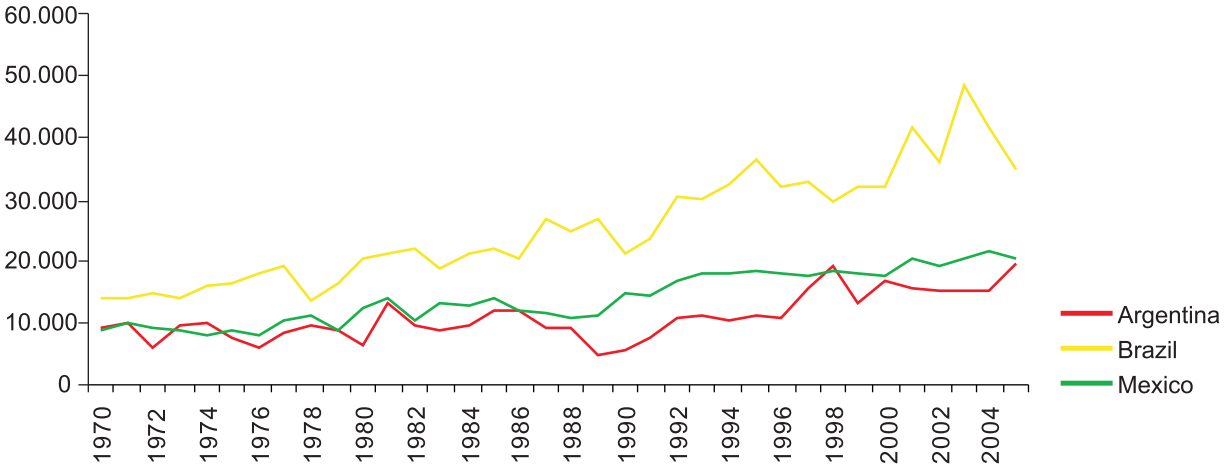

Fig. 15. Data on the production of maize (1000 tons).

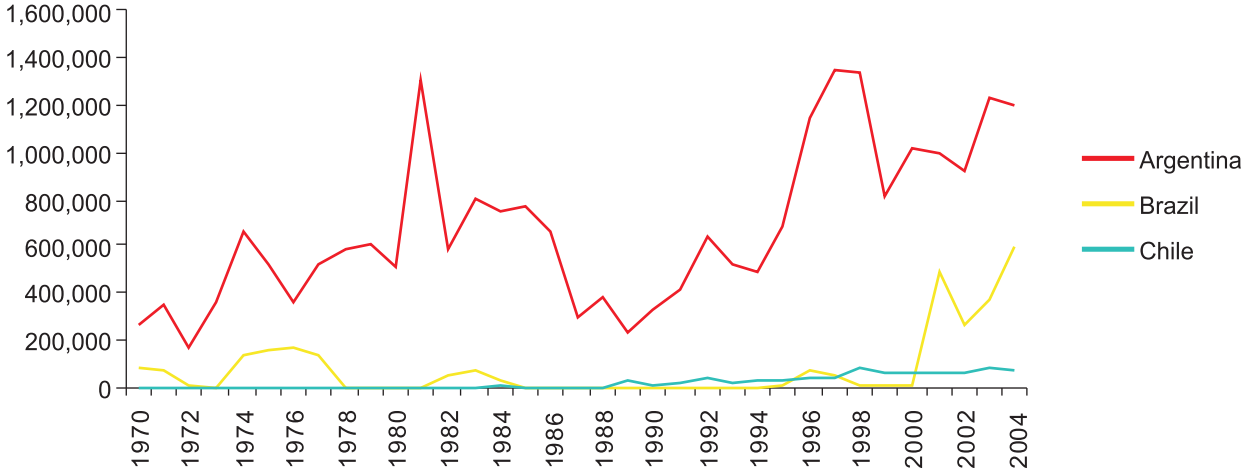

Fig. 16. Data on the exports of maize (1000 US$).

What does the future hold?

This last section is devoted to speculation about the future. I also hope I can provoke some speculations from others about the future. South America has the potential to be an important source of food and other agricultural products for the international economy.

First, my expectation is that Latin America will continue to be a strong competitor in international markets. I have on occasion referred to Argentina and Brazil collectively as the modern bread basket for the world. They both have the agricultural resources to play that role, and if Brazil continues to support its agricultural research system, it may become even more competitive in the future. Argentina will continue to adopt its new production technology from the United States.

The potential downside for those two countries is their respective economic policies. Argentina continues to mismanage its macroeconomic policies and may soon again succumb to an overvaluation of its currency. Brazil has paid off a significant amount of its international debt, and its currency has increased in value relative to the U.S. dollar by one-third since 2003. So far, that rise in value has not choked off exports significantly, but that is probably because there is still a lot of technological slack in the sector. These macroeconomic developments in both countries will make them a bit less competitive in the future. However, the need to continue servicing international debt will keep both countries from backsliding very much.

The current rush for sustainable fuel substitutes may possibly play a significant role in the future, especially in Brazil. Ironically, both Brazil and the United States have to subsidize their ethanol industries for them to be viable. The political pressures for them to continue to do so will be strong in both countries, even if we have seen the peak in the current surge in petroleum prices. Brazil has the advantage of having much more land that it can bring into production. Hence, I expect that the ethanol surge will have a smaller effect on the competitive edge in Brazil than in this country. The competition for land in the United States can well lead to an increase in prices for important agricultural commodities such as maize.

The proposal for a Free Trade Agreement for the Americas (FTAA) is another issue. Successfully negotiating an agreement could be a powerful source of economic growth in the region. From that economic growth would come an expansion of markets for everybody.

Whether such an agreement is likely to come about is another story, however. Latin America has lacked enthusiasm for free trade throughout the post-World War II period. Influential Brazil has in recent years been leading the charge against the liberalization of agricultural barriers to trade in the

DOHA Round, although it sometimes seems as if they are negotiating over the "price" of admittance rather than actually being protectionist. With the Democrats back in power in the U.S. Congress, most observers expect further reductions in trade barriers not to be a part of the U.S. agenda. Hence, I am not optimistic about either a successful Doha Round or successful negotiations over a Free Trade Agreement for the Americas.

Finally, there is the trend in the value of the U.S. dollar. It has fallen by approximately 15 percent on a trade-weighted basis since 2002. If China should continue to allow its currency to rise in value, and turn increasingly towards domestically oriented development policies, it could reduce its support for U.S. Treasure bonds. If they should back away in a significant way from the purchase of those bonds, the dollar could decline very significantly. A significant decline could be a serious problem for the U.S. economy, although it would be excellent for U.S. agriculture. Agriculture would benefit from growing exports, and from a decline in competitive imports.

Although I don't expect that a collapse of the dollar is in the cards, I do expect a continued downward trend in the value of the dollar, unless the Congress should muster the courage and strength to move our Federal budget towards balance. That seems to be some time in the future, however.

Concluding comments

Let me conclude with two final points. First, the continued ability of U.S. agriculture to compete in the international economy will depend on its ability to reform its own agricultural commodity policies. The USDA's Economic Research Service has shown that the price of U.S. real estate assets contributes importantly to our lack of competitiveness with Argentina and Brazil. Policy makers and farmers alike need to recognize that the value of our agricultural subsidies and the protection of our agricultural sector is being capitalized into the value of the land in this country. That has a significant negative impact on our ability to compete internationally.

Second, the United States needs to recommit to a vital agricultural research system. Moreover, it needs to develop a stronger base for understanding the forces that affect our agricultural sector from abroad. That includes both an understanding of macroeconomic policies in other countries and the technology they have for their agricultural sector.

Finally, I would paraphrase my comments on Brazilian agriculture back in 1970. If the U.S. would reform its domestic commodity programs and renew its investment in agricultural research, it could once again compete with almost any country in the world. The United States will eventually pay a heavy price if it should do anything less than that.

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