The Impact of the Brazilian Crisis in the Tenth District

By Ricardo C. Gazel and Chad R. Wilkerson

The recent economic turmoil in Brazil, triggered by the devaluation in January of the *real* (Brazil's currency), has understandably created concern about how the United States will be affected. This article looks at the possible impacts in the Tenth District and finds that, at least for now, there is little need for concern. The article is divided into three sections: an explanation of the crisis and its overall potential for harm, a brief discussion of the direct impact on district producers, and a more thorough analysis of the indirect ways a spread of the crisis could affect manufacturing and agriculture in the region.

The crisis and its potential for harm

After spending more than half of its international reserves defending its currency since the Russian debt crisis last summer, Brazil attempted a small, controlled devaluation of the *real* on January 13.[1] Similar to the situation in Indonesia in 1997, the limited devaluation resulted in additional pressures on the currency as the market overreacted to the move, and Brazil experienced further losses of foreign reserves. The Brazilian government was forced to allow the currency to float freely and, by the end of January, the exchange rate had fallen from 1.22 *reals* per dollar to over 2 *reals* per dollar, a devaluation of around 40 percent.[2]

In the hope of avoiding a massive outflow of dollars and an even steeper fall of the *real* and higher inflation, the Brazilian Central Bank raised interest rates after the float, with overnight rates shooting to 39 percent. The higher rates worsened the fiscal position of the Brazilian government, which has a high level of internal debt. Meanwhile, fiscal reforms aimed at cutting spending and increasing tax revenues continued to drag in the Brazilian Congress.[3] Under these circumstances, most analysts in late January and early February adjusted substantially downward their forecasts of Brazilian economic activity in 1999, with most anticipating somewhere between a 3 and 5 percent decline in real GDP.

Given the magnitude of the crisis in Brazil, how significantly could it affect the Tenth District economy? The impact in the district will depend largely on how the overall U.S. economy reacts to the crisis. For example, the U.S. stock market could have difficulties if the profit margins of American companies that invested in Brazil and other Latin American countries begin to fall. Paine Webber estimates that around 7 percent of the corporate earnings of S&P 500 companies come from Latin America, with even higher proportions for some companies. Another risk is the possibility of a Brazilian debt default. If Brazil reneges on its financial obligations either at home or abroad, there could be a ripple effect felt around the world.

These potential threats to financial markets are important, and would certainly affect the district economy if they occurred. But there are more direct ways the Brazilian crisis—and its possible spread—could have an impact on producers in the Tenth District.

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[1] Brazilian foreign reserves declined from a peak of $74.7 billion in April 1998 to around $36 billion after the devaluation of the *real*, and have stayed around that level since then.

[2] The *real* appreciated somewhat at the beginning of February but by the end of that month the exchange rate was again over 2 *reals* per dollar.

[3] It is important to note that the Brazilian Congress has now passed most of the fiscal measures aimed at achieving a primary fiscal surplus. However, debt service has increased substantially due to the high interest rates and also due to the devaluation, since part of the Brazilian internal debt is denominated in dollars.

Table 1
Destination of U.S. and District Manufacturing Exports
(Percent, 1997)

	Brazil	Other South America	Central America and Caribbean	Mexico	*Total Latin America*
United States	2.4	4.3	2.6	10.6	*20*
Tenth District	1.6	3.1	1.2	5.3	*11*
Wyoming	4.2	11.4	0.9	10.6	*27*
Oklahoma	1.1	5.7	1.3	5.8	*14*
Kansas	2.5	4.0	1.9	5.2	*14*
Missouri	1.7	2.9	1.2	6.0	*12*
Colorado	1.4	1.5	0.8	4.6	*8*
Nebraska	0.9	1.7	0.9	3.6	*7*
New Mexico	0.1	0.9	1.3	4.6	*7*

Source: MISER.

Direct impacts on district producers

There are three ways the troubles in Brazil could affect the district economy in the short run. First, a Brazilian recession would result in lower aggregate demand for goods and services in Brazil, including goods imported from the Tenth District. Second, the large devaluation of the *real* with respect to the dollar makes American goods relatively more expensive to Brazilian consumers, further reducing their demand for goods produced in the Tenth District. Finally, Brazilian goods after the devaluation are cheaper in comparison to their American counterparts not only in Brazil, but also in all markets where Brazilian and American producers compete, including the United States. In other words, district producers will face stiffer competition from Brazilian producers in Brazil, within the United States, and in other international markets, especially Latin America.

These direct effects of the Brazilian crisis on the district economy are likely to be quite small. Brazil accounted for just 1.6 percent of all district manufacturing exports in 1997 (Table 1). And manufacturing exports to Brazil represented only a tiny fraction of total factory *output* in the district (less than two-tenths of one percent). Agricultural exports to Brazil were also quite insignificant in 1997, comprising around one percent of total farm exports. In addition, imports from Brazil represented just over one percent of all imports.

The direct impact in the nation as a whole will be slightly larger than in the district, since a higher percentage of national exports go to Brazil and a bigger share of national manufacturing output is exported. Nevertheless, given the small percentages involved, the direct impact on the national economy will likely be minimal.

The possibility of a spread

If the Brazilian crisis spreads to other Latin American countries, the impact would obviously become larger in both the district and the nation, since Latin America as a whole is a much bigger trade partner and an important competitor in several industries. How far the crisis spreads will depend on several factors, most of which would be difficult to predict with any degree of certainty: how far the *real* falls; the extent of Brazil's recession in 1999; whether other countries devalue their currencies; whether Brazil defaults on its internal and/or international debts; and how other Latin American countries, and especially Mexico, are affected by reduced Brazilian demand and increased competition from Brazilian producers.

While the final extent of the spillover in Latin America is unknown, a few countries will almost certainly be affected by the Brazilian crisis in the near term. These include the other members of Mercosur, a free trade area in South America that joins Brazil and neighboring countries Argentina, Paraguay, and Uruguay. Argentina, for example, is likely to experience a recession in 1999 as exports to Brazil fall and imports from Brazil rise. Exports represent around 10 percent of GDP in Argentina, and Brazil accounts for one third of them. Thus, a recession in Brazil and the large devaluation of the *real* could significantly reduce Argentina's net exports. Many Argentinean car makers, in fact, have already cut production and are planning further labor suspensions in the near future. Argentina has also raised interest rates to protect its own currency, and many analysts expect a fall in foreign direct investment this year since recent investment has been heavily concentrated in export-oriented manufacturing activity.

The Mercosur group of countries will probably suffer the most from the Brazilian crisis, but other countries in Latin America are also likely to experience difficulties. Nearly all Latin American countries, for example, trade more heavily with Brazil than the United States does. So the direct impact of lower export flows to Brazil, higher levels of imports from Brazil, and tougher competition from Brazilian producers in international markets will likely be greater in these countries, and could lead to acute economic difficulties.

Indirect impacts on manufacturing

Given that some spillover to other countries is likely to occur, how important is Latin America as a whole to the district manufacturing sector? In 1997, Latin America accounted for slightly more than 11 percent of the district's manufacturing exports, with half of those going to Mexico (Table 1). But since exports account for just a small share (approximately one-twelfth) of total production in the district, exports to Latin America represented less than 1 percent of district manufacturing output (Table 2).

Table 2
Share of Manufacturing Output Exported to Latin America
(Percent, 1997)

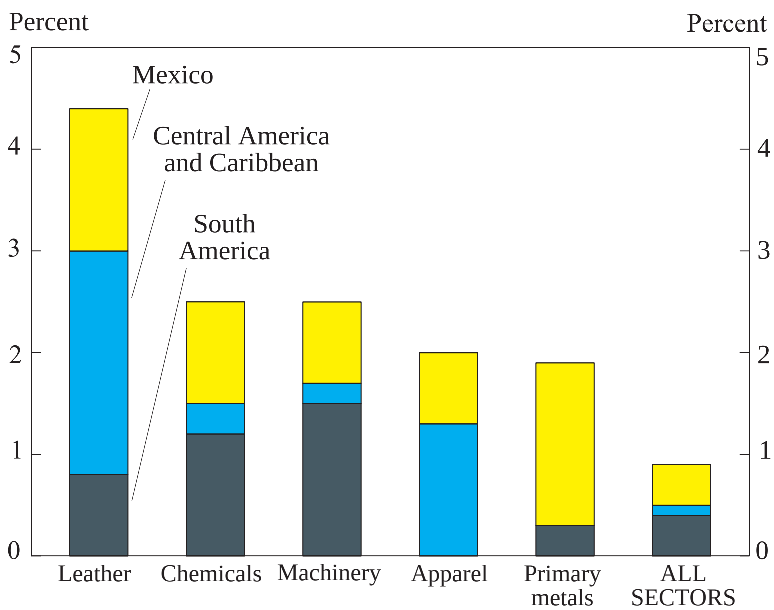
United States	3.0
Tenth District	0.9
Wyoming	4.6
Kansas	1.1
Colorado	1.1
Oklahoma	1.0
Missouri	0.8
Nebraska	0.5
New Mexico	0.4

Sources: MISER, U.S. Department of Commerce.

In contrast, 20 percent of U.S. manufacturing exports went to Latin America in 1997, and the share of manufactured goods that are exported is almost twice as high in the nation as in the district. Thus, exports to Latin America comprise around 3 percent of the country's factory output. The impact of a Latin American meltdown would therefore be somewhat larger in the nation than in the district but, given the still limited exposure of the domestic manufacturing sector, the impact would be rather small.

While the overall effects of the crisis on district manufacturing will likely be light, some states will be more negatively affected than others. Among district states, Wyoming has the highest share of its manufacturing exports going to Latin America, 27 percent in 1997 and more than 30 percent in the first three quarters of 1998. The state's exports to the region, which are highly concentrated in the chemical sector, represent slightly less than 5 percent of Wyoming's total factory output, a fairly large amount. Oklahoma, Kansas, and Missouri each send more than 10 percent of their exports to Latin America. But exports in these states represent a smaller fraction of total manufacturing output than in Wyoming, so Latin America receives roughly just 1 percent of their manufactured goods. Latin America accounts for less than 10 percent of the manufacturing exports of Colorado, New Mexico, and Nebraska. Given the importance of exports in Colorado, its exports to Latin America represent slightly more than 1 percent of total factory output

Chart 1
Share of District Manufacturing Output Exported to Latin America by Sector, 1997



Sources: MISER, U.S. Department of Commerce.

in the state. In Nebraska and New Mexico, the share is less than one-half of one percent.

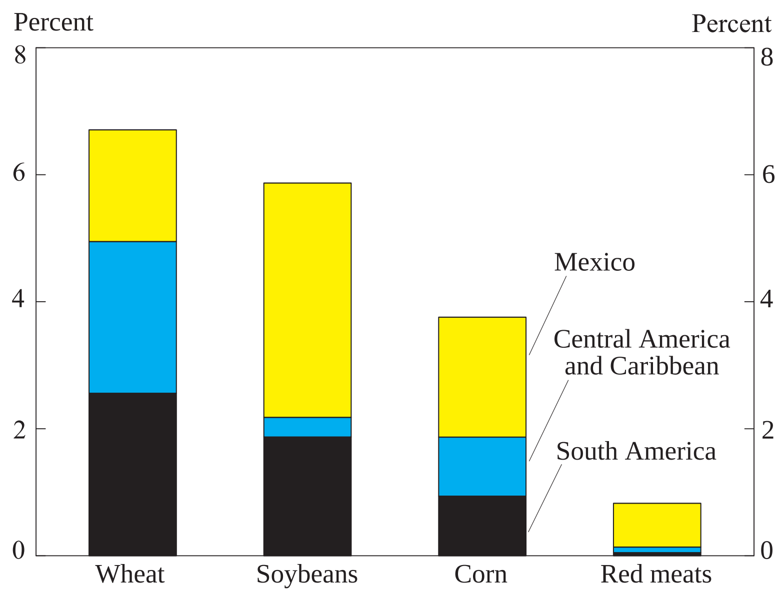
There also will be differing degrees of impact among sectors. Tenth District manufacturing exports to Latin America are fairly concentrated in a few sectors. For example, Latin America accounts for almost half of the district's apparel exports, and over 40 percent of its textile exports. However, given the importance of exports as a share of total output, district leather producers have the highest exposure to Latin America. Nearly 5 percent of the sector's output went to the region in 1997, with exports consisting primarily of finished hides and soles (Chart 1). Exports to Latin America also account for close to 2.5 percent of the output of chemicals and machinery in the district. But overall district manufacturing exports to Latin America account for less than one percent of total output, meaning that even a considerable spread of the Brazilian crisis is unlikely to have much immediate impact on district manufacturers.

Indirect impacts on agriculture

The agricultural sector in both the district and the nation could also potentially be affected by a downturn in the overall Latin American economy. Agricultural export data at the state level is not very reliable, but since agricultural commodities produced in different areas can be considered close substitutes, the district's share of total U.S. production can help give an idea of the impact in the district.[4] In 1997, the seven district states produced more than a third of the country's wheat and cattle, more than a fifth of the corn and hogs, and roughly a sixth of the soybeans. Latin America accounted for between 14 and 20 percent of the exports of these commodities.

4 For a comprehensive analysis of export data at the state level, see Cronovich and Gazel, "How reliable are the MISER foreign trade data?" (1999).

Chart 2
Share of U.S. Agricultural Commodities Exported to Latin America, 1997



Source: U.S. Department of Agriculture.

After taking into consideration exports as a share of total output, Latin America received about 7 percent of the total U.S. production of wheat, 6 percent of the soybeans, 4 percent of the corn, and close to 1 percent of the red meats in 1997 (Chart 2). Given these proportions, the agriculture sector, and especially grain producers, could feel a moderate impact if the Brazilian crisis spreads to other countries in South America. Problems would become even larger if the crisis hits Mexico, since that country receives more than half of Latin America's share of some exported commodities.

In addition, more than a third of U.S. agricultural imports (which include grains and meats as well as such items as coffee, nuts, fruits, and vegetables) come from Latin America. While Brazil accounts for only a small part of this overall share, it produces and exports a large amount of soybeans. A weaker *real* could therefore lead to a fairly sizable inflow of Brazilian soybeans to the United States.

Conclusions

The direct impact of the Brazilian crisis on the district economy is likely to be quite small. Exports to Brazil account for only a tiny fraction of total manufacturing and agricultural production in the district. The indirect effects of a spread of the crisis to other Latin American countries would obviously be somewhat larger, especially for agriculture, but still relatively small since exports to Latin America as a whole represent just a minor share of overall district production. In order for the district economy to be significantly affected by the crisis, something on a larger scale, such as a Brazilian debt default or a profit squeeze on U.S. companies that have invested heavily in Brazil, would have to occur to weaken the overall U.S. economy. Until and if that happens, the district economy should be able to weather the current economic storm in Brazil.

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