Provided by Research Papers in Economics The Control of the Contr

FEDERAL RESERVE BANK OF DALLAS

ISSUE 2 - 1995

Texas' Border: On the Front Line of Change

aredo's long lines of cars and L trucks backed up at bridges to Nuevo Laredo, Mexico, were replaced in January by long lines of displaced workers at the unemployment office. For Laredo and other border communities. 1994 was a year of sweeping change, first as the North American Free Trade Agreement, or NAFTA, took effect and then as the peso's value plummeted. And 1995 promises even more change. Dozens of border retailers, heavily dependent on Mexican shoppers, have closed their doors. Export firms, truckers and customs brokers whose businesses. were bustling throughout 1994 now wait for the peso to stabilize.

Despite current economic stress, long-run prospects for the Mexican economy are bright. The border remains an important distribution center to northern Mexico and will continue to grow, but the changes of 1994 will influence the region's economy well into the future.

Economic setbacks that could overwhelm many cities are not new to border communities. In 1982, the peso devalued 121 percent against the dollar in real terms. The current devaluation—55 percent from November 1994 through February 1995—probably won't be as severe as the 1982 crisis. As NAFTA's new trade rules take effect and consumers' disposable incomes fluctuate with the peso's value, industries along the border will adjust to meet new demands.

The Texas-Mexico border stretches along the Rio Grande for 1,248 miles—from El Paso to the lower Rio Grande Valley. Border counties are home to more than 1.5 million people, or about 9.2 percent of Texas' population, and about 6.4 percent of the state's total employment. The border has a relatively large share, 11.5 percent, of Texas' jobs in nondurable manufacturing, in part because of El Paso's concentration of apparel and textile factories. Another important border industry is wholesale and retail trade, which contributes 27 percent of all border jobs, compared with 24 percent statewide.

Heavy immigration to border cities keeps unemployment rates higher than the state's 1994 average of 6.4 percent. Last year, the unemployment rate averaged 9 percent in

Laredo, 9.9 percent in El Paso, 11.5 percent in Brownsville–Harlingen–San Benito and 16.5 percent in McAllen–Edinburg–Mission. Even so, the border's employment growth has surpassed the state's average in nine of the past 10 years. Despite their brisk growth, border counties' incomes are among the lowest in the nation; their 1992 per capita income averaged \$10,933, about 59 percent of the state average of \$18,437.

NAFTA's New Rules of the Game

While being a major benefactor of freer trade, the border also benefits from barriers to trade. For many years, cities along the border have thrived selling goods and services to Mexican visitors and helping the influx of importers and exporters comply with international rules and regulations. In 1994, NAFTA changed the demand for these services, and some businesses profited while others suffered.

By lowering trade restrictions, NAFTA made it easier for U.S. companies to set up shop in Mexico, which reduced the demand for some border retail services, particularly to Mexican wholesalers who export U.S. goods to resell at home. With more U.S. outlets in Mexico, fewer Mexicans need to cross the border to purchase U.S. goods.

Changing regulations under NAFTA lowered the cost of exporting U.S. goods and reduced the demand for services that help traders accommodate previous regulations.

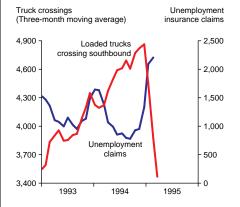
At the same time, NAFTA's new rules and restrictions boosted cross-border trade traffic and demand for other services. Rising trade volume—accompanied by new tariff rates, rules of origin and labeling requirements—helped border customs brokers, import and export firms, and warehouses.

The Peso Is Devalued

After a year of sharply rising trade, Mexico's December peso devaluation once again altered the demand for border industries' products and services. The number of loaded trucks crossing the Laredo Bridge System southbound into Mexico increased 15 percent in 1994 and then plummeted to pre-NAFTA levels following the devaluation. January claims for unemployment insurance doubled (*Chart 1*). Retail sales dropped over the holiday shopping season, typically stores' busiest period of the year. Retailers quickly cut back on inventories and employees and many stores eventually closed. Sagging demand also led to layoffs in other border service industries—including warehousing, transportation, customs brokerage and freight forwarding.

The peso's changing value means U.S. border residents must be mindful of daily peso-dollar exchange rate movements. For nearly a decade, Mexican policy provided a relatively predictable exchange rate for currency transactions. During the mid-1980s, Mexico targeted the peso's value relative to the dollar. Mexico began allowing the peso's value to float within a widening band in 1991. After the December devaluation, however, Mexico abandoned the band and allowed the exchange rate to float freely. Now, the peso is far less likely to show large reductions in value, but frequent small movements are more likely.

Chart 1 Laredo Unemployment Claims Up, Border Traffic Down



The effects of Mexico's new exchange rate policy are becoming evident. Since the devaluation, currency exchange houses report an increase in business. For now, U.S. stores that once accepted pesos or dollars are accepting only dollars to avoid the risk of day-to-day exchange rate shifts, or are accepting pesos at deep discounts from market value. Day-to-day uncertainty has increased for Mexican shoppers and businesses purchasing supplies in the United States because exchange rates must be a consideration in every purchase.

The peso devaluation was not entirely negative for border communities. The devaluation lowered the cost of labor and other inputs for maquiladoras because most operate on dollar-denominated budgets with costs in pesos.² The peso's drop has sparked renewed interest in the Mexican border as a low-cost off-shore manufacturing site. The benefits maquiladoras derive from the peso's devaluation boost economic activity, especially among U.S. legal, accounting, warehousing and transportation firms. The border also benefits from maquiladoras' expanding demand for goods and services from U.S. suppliers. Although most of these suppliers are located outside the border region, more of them are either opening operations on the border or relocating there to lower transportation costs and help maintain "just-in-time" inventories.3

A Bright Long-Run Outlook

Uncertainty over the Mexican economy and the peso will bring continued change to border communities in the near term. Analysts who initially thought the situation would improve in six to eight months have extended their estimates to a year or longer. Still, with economic fundamentals strong in Mexico, long-run prospects for the border remain bright. Major construction and infrastructure expansion plans continue unabated, including those for a new hospital, hotels and freeways. Large retailers are continuing with expansion plans based on the positive long-term prospects for the region. In February, Foley's announced plans to add stores in Brownsville, McAllen and Laredo, and in March, JCPenney and Mervyn's opened new stores in Laredo. Ultimately, the devaluation and its aftermath may amount to nothing more than a speed bump along the region's highway to prosperity.

—Fiona Sigalla

Notes

- The real value of the dollar against the peso, according to the Dallas Fed's Trade-Weighted Value of the Dollar Index, went from 71.5 to 157.7 from January 1982 to September 1982.
- Maquiladoras assemble goods in Mexico, importing inputs duty-free as long as a percentage of the final product is exported from Mexico. NAFTA phases in new rules for Mexican sales by maquiladoras during 1994-2000, greatly liberalizing maquiladoras' access to domestic markets. In 1994, the allowance of domestic sales as a share of the previous year's export production was raised to 55 percent. This allowance will increase annually from 1994 to 2000 in 5-percent increments. See Lucinda Vargas, "The Changing Dynamics of the Maquiladora Industry, Part 2" Federal Reserve Bank of Dallas, El Paso Branch Business Frontier, November/December 1994.
- ³ See Lucinda Vargas, "Border Economic Integration: The Case of the Maquiladora Industry" (Speech presented at the Fourth International Conference on the Quality of Life on the Border) University of Texas at El Paso, El Paso, Texas, March 17, 1994.

What's Happening to Americans' Income?

A pril marks the beginning of the fifth consecutive year of U.S. economic expansion. Gross domestic product (GDP) growth has averaged 3.1 percent since the recession's trough, job growth in 1994 was the highest in a decade, unemployment is hovering around historic lows, and the consumer price index through 1994 registered its best four-year performance since the early 1960s.

Despite this good news, many recent media reports have painted a bleak picture of the average American worker's prospects. These reports cite studies that claim wages and incomes are falling, that economic progress is not keeping pace with past rates and that everyone is not sharing equally in the economy's gains. In light of these conflicting views on the economy, it is understandable that many people are asking, What's the truth?

A thorough assessment of Americans' living standards must include a host of considerations that matter to people, such as leisure time, working conditions, life expectancy, pollution, crime and other aspects of life (see Cox and Alm 1994). Clearly, more than purely pecuniary considerations—wages, earnings, income—matter to people. However, the bulk of the recent studies have focused solely on monetary measures of Americans' well-being. This article, therefore, focuses narrowly on money issues in an attempt to sort through some of the conflicting information.

GDP and Consumption: The Long View

We begin by looking at GDPthe broadest and most long-standing of the aggregate output and income statistics. Much of the hand-wringing has been over GDP's apparently lackluster performance over the past two decades, particularly as compared with the 1950s and 1960s. Chart 1 shows per capita real GDP (red line), which is the inflationadjusted measure of the economy's output per person, over the period 1869-1994. Per capita real GDP growth averaged 2.1 percent annually over the 1954–73 period, then slowed to 1.6 percent through 1989.2 The latter growth rate is a half-point less, which represents a significant slowdown. However, the rate of growth during the 1954-73 period was quite high by historical standards. As Chart 1 shows, over the 84 years from 1869 through 1953, per capita real GDP growth averaged 1.6 percent annually—a rate virtually identical to that of the 1974-89 period, *not* that of 1954-73.3

More recently, GDP has been recovering from the 1990–91 recession. After stalling during 1989 and 1990, and subsequently turning down, per capita real GDP hit a trough in the fourth quarter of 1991.⁴

Since then, per capita real GDP has grown at an average annual rate of 2.5 percent (nearly 3 percent in 1994), well above the 1.6-percent growth needed to eventually restore GDP to its long-term trend.

In this light, America's recent economic progress appears much less subpar. Indeed, the country's period of abnormal growth is arguably the 1950s and '60s, an era during which the United States rose to the position of dominant industrial leader of the world, while consumers sought to catch up from the paucity of the Great Depression and World War II.⁵

We look next at consumption. Presumably, consumption, and not production, is the end goal of economic activity, and it is households' consumption experience from which their impressions of living standards are formed. The data show (Chart 1) that consumer spending rose even faster (2.4 percent) than GDP during the 1950s and 1960s, as the vast military expenditures of World War II (and later the Korean War) were steadily pruned from the government's budget. With labor and industry freed from the yoke of heavy government control, factories turned to producing cars rather than tanks and the like, and the share of output going to private con-

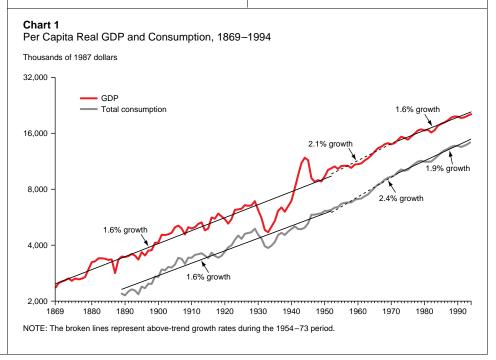
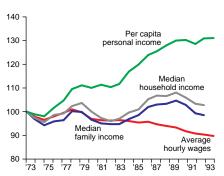


Chart 2 Four Measures of Americans' Well-Being, 1973–93 (Inflation-adjusted)

Index, 1973 = 100



sumer goods rose from 56 percent in 1953 to more than 63 percent by 1973. And that's not all. Research has found that households regard about 23 percent of government nondefense spending as consumption; thus, consumers' effective *total* share of production rose from 58 percent in 1953 to nearly 68 percent by 1973.6

In effect, the paring down of military expenditures from 13.2 percent of GDP in 1953 to 5.7 percent by 1973 boosted consumption growth by nearly 0.4 percent annually over those two decades. Clearly, this boost could be transitory, at best, but it nonetheless helped feed the consumer euphoria of the era. No such boost was enjoyed subsequently, even with the dissolution of the Soviet Union. The end of the Cold War has resulted in a paring down of military expenditures to 4.7 percent of GDP, but that represents a relatively small gain for consumers.7 Thus, again, the statistics highlight the uniqueness of the 1954–73 experience.

With these historical perspectives on GDP and consumption, America's more recent economic performance may look less subpar. Still, skeptics cite other statistics that paint a bleak picture of the nation's recent economic progress. Chart 2 shows four measures of Americans' monetary well-being frequently cited by economic reports. These are per capita personal income, median family income, median household

income and average hourly wages.8 As the chart shows, one can preach four distinctly different sermons on Americans' recent economic progress, depending on the statistic wielded. For example, per capita real personal income increased by an average of 1.4 percent a year from 1974 through 1993. During that same period, on an annual basis, median family income increased only a tenth of a percentage point, median household income fell about a tenth of a percentage point, and average wages fell by one-half a percentage point. This represents a sharp contrast for four economic series that a lay audience would generally expect to be interchangeable.

Income, Wages and Total Compensation: Resolving the Conflict

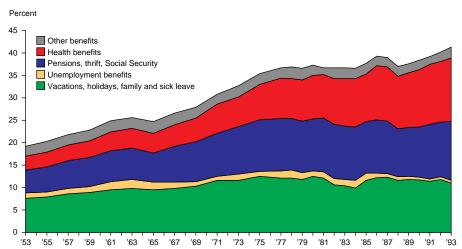
There are many quirks in economic statistics that can cause hidden biases when aggregate data are used to gauge economic progress. Changes in the population's size, work habits, social habits or age distribution; changes in the way we get paid; or changes in the goods that we produce can all cause the interpretation of the economic variables we measure today to differ from yesterday. The size of the average U.S. family has declined markedly over the past 20 years,

more people participate in the labor force, the average workweek is shorter, the labor force is younger, employee benefits are higher, and so on. Such changes distort year-to-year comparisons of virtually every aggregate statistic, making comparisons difficult and inviting many different conclusions from the data. Thus, it is important to sort through this economic puzzle to determine what's really happening to Americans' monetary well-being.

For the purpose of comparing today with yesterday, two of the most severely tainted economic aggregates are median household income and median family income. Today's households are nearly 15 percent smaller than yesterday's (average household size was 3.01 persons in 1973 versus 2.63 today), and, therefore, household income is spread over fewer people. The upshot is that the household income statistics significantly understate the true income gains for comparable households today versus yesterday. Similarly, the median family income statistics for yesterday's Brady Bunch cannot be compared with those of today's Murphy Brown with any measure of accuracy.

Also severely tainted are the simple wage data, their biggest bias being that they ignore employee benefits.¹⁰ Employee benefits have

Chart 3Employee Benefits as a Percentage of Payroll, 1953–93



SOURCE OF PRIMARY DATA: U.S. Chamber of Commerce, Employee Benefits Report (various years) and Employee Benefits Historical Data, 1951–1979.

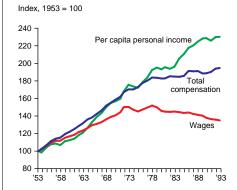
grown from just 20 percent of payroll in 1953 to more than 41 percent today. As Chart 3 shows, the proportion of payroll devoted to health benefits rose from 3 percent in 1953 to more than 14 percent recently. Retirement and savings benefits went from 5 percent of payroll in 1953 to 13 percent in 1993. Payments for time not worked, which includes vacations and holidays, sick leave, military leave and family leave, went from 7.5 to 11 percent of payroll over the same period.

Benefits are a form of employee compensation. Like wages, workers value benefits and even bargain for them. Indeed, since benefits are often untaxed (or are taxed at a substantially lower rate than wage income). employees may be willing to give up more than a dollar in wage income to receive a dollar's worth of benefits. This means, in terms of the data, that the rise in employee benefits may have resulted in a more-than-equal decline in wages, again distorting the armchair analyst's ability to gauge well-being by looking simply at the wage data.

Once employee benefits are added to the raw wage data, the story becomes a bit more optimistic (*Chart 4*). As mentioned earlier, from 1974 to 1993, real wages fell about a half percentage point a year. However, real total compensation, which includes wages *and* benefits, rose about a half percentage point a year. Add to this the fact that today's labor force is roughly two years younger than that two decades ago, and the wage gain figures look even less subpar.¹¹

A better gauge of economic well-being is per capita real personal income. Roughly speaking, per capita real personal income is the (inflation-adjusted) sum of all income-related receipts and disbursements—wages, rents, interest, profits and government transfers, less taxes—per person in society. It lacks the problems of household and family income because the economic unit is of a fixed size (one person), and it lacks the problems of the wage data

Chart 4
Per Capita Personal Income, Total
Compensation and Hourly Wages, 1953–93
(Inflation-adjusted)



because it measures more than simply wage income.

Personal income is essentially just the payment side of GDP (the main substantive difference being allowances for depreciation), and it behaves accordingly. Per capita real personal income grew at a 1.65-percent rate over the 1974–89 period, virtually identical to the 1.64-percent growth in per capita real GDP.¹²

Per capita real personal income, though, is not devoid of hidden distortions, such as those stemming from changes in the labor force participation rate or annual hours worked. Over the past two decades the average workweek has declined by 2.4 hours, and American workers have added seven days of vacations and holidays annually, yielding roughly a 180-hour reduction in average time worked per year. 13 In essence. Americans have taken a portion of their progress in the form of leisure rather than income, lowering the income and GDP growth numbers from what they otherwise could have been.

The Return to Education: Widening the Income Distribution

One major issue remains: the sharply slower growth in employee compensation (wages plus benefits) as compared with income. From 1974 to 1993, total compensation grew at a 0.7-percent rate, as compared with 1.4 percent for per capita personal income (*Chart 4*). In

essence, the gap widened between income and compensation. It should be noted that data on wages and compensation pertain to only production and nonsupervisory workers, or about 63 percent of the work force, whereas the income data cover all workers. The widening gap tells us that the share of income paid for production and nonsupervisory work is declining, while the share paid elsewhere—to professionals, supervisors, managers and owners—is growing.

One explanation appears to be the rising return to human capital. In an increasingly information- and service-oriented economy, business capital has come to encompass not just physical plant and machinery but, more and more, intellectual capital as well.14 As Chart 5 shows, the workers reaping most of the economic gains have been those at the higher end of the education spectrum. The income premium to education is substantial and has grown markedly over the past two decades. In 1992, college graduates made an average of 82 percent more than high school graduates, up from only 43 percent in 1972. The really big returns to education these days come with advanced degrees—Ph.D.'s, M.D.'s, J.D.'s, CPAs and so on. In 1972, people with advanced degrees earned 72 percent more income than high school graduates. By 1992, they made 2.5 times more. Today, high

Chart 5
The Education Premium: Index of Income
By Educational Attainment, 1972 and 1992

Index, high school = 1

2.5 - 1992 2.54

1.5 - 1 1 1 1.10

Dropout High school graduate college Graduate Advanced degree

school dropouts earn scarcely half as much as high school grads, and the gap is widening.

Summary

In the public arena, reports can produce shock waves long before the facts are determined. Recent economic reports have been no exception. Economic doomsday stories have proliferated from grossly superficial analyses based on highly aggregated wage and income statistics. A more careful examination of the data that takes into account just a few of the surrounding factors the increase in employee benefits. the decline in median household or family size, the shortening in the average workweek and so onshows a generally much less bleak view of Americans' progress in living standards.15 Indeed, from the perspective of the two broadest and most long-term economic aggregates—per capita real GDP and consumption—Americans' recent gains are generally right on par with those garnered historically. The case for alarm thus has little merit.

Aggregate statistics, of course, reflect averages. Some people have gained more, others less. But one thing can be said conclusively: the income of the well-educated has grown substantially faster than that of the less-educated over the past two decades. Clearly, education is one of the most effective ways Americans can increase their income potential.

— W. Michael Cox Beverly J. Fox

Notes

¹ In 1991, the Department of Commerce switched from gross national product (GNP) to GDP as its generally preferred measure of aggregate economic activity. Chart 1 uses GNP data since GDP data are not available before 1947. Because the difference between the GNP and GDP series is negligible (less than one-tenth of 1 percent on average), the distinction is unimportant here and is henceforth ignored.

- The average growth rates of per capita real GDP during the periods 1869–1953, 1954–73 and 1974–89 were estimated by regressing the log of per capita real GDP on a constant and time for each of the three separate periods. The same is true for consumption, beginning in 1889. Available GDP data begin in 1869, and consumption and government purchases data begin in 1889. The years 1953, 1973 and 1989 were chosen since they represent business-cycle peaks.
- More precisely, per capita real GDP growth averaged 1.61 percent, 2.08 percent and 1.64 percent, respectively, over the three successive periods. Thus, growth during the 1974–89 period was actually slightly higher than that during 1869–1953.
- ⁴ Per capita real GDP hit a trough in the fourth quarter of 1991, later than the official GDP trough, as the recovery's initial GDP gains fell short of simple population growth.
- ⁵ See Wynne (1992a and 1992b).
- The government purchases many different types of items, from tanks to school lunches. Clearly, some goods provided publicly—food stamps, rent subsidies, school lunches, Medicare and so on—are of a consumer nature and may be viewed by households as equivalent to those they could buy privately. Following the research of Kormendi (1983) and Aschauer (1985), we assume that approximately 23 percent of government nondefense purchases are viewed by households as equivalent to private consumption.
- ⁷ Growth in total real consumption averaged 1.6 percent annually during the 1889–1953 period and 1.9 percent during the 1974–89 period but jumped to over 2.4 percent during 1954–73.
- Each of the series cited henceforth per capita personal income, median household income, median family income, average hourly wages and total compensation—are deflated using the CPI-UX1 consumer price index.
- More specifically, the data show that in 1973, the average household had 1.34 adults (members age 18 or older) in the labor force, 0.67 adults not participating in the labor force and one child. For 1993, these numbers are 1.34, 0.60 and 0.69, respectively.
- ¹⁰ Another problem with the wage data is that they do not measure take-home pay, as affected by tax rates and transfer payments. Adjustment for these factors is beyond the scope of this article.
- As the age of the work force declines, so does the level of experience and, hence, income and wages, yet the aggregate measures unavoidably conceal this change. We make no attempt to adjust for the age factor here.

- 12 See note 3.
- ¹³ See Cox and Alm (1994) for more details.
- ¹⁴ See Cox and Alm (1995) for a broad examination of the growth of the service sector and what it portends.
- Two other major income data adjustments needed are for taxes (and transfers) and improvements in product quality. The Department of Labor recently began an extensive study to determine the extent (if any) to which price indexes are overstated due to an under-recognition of the gains in product quality. Overstatement of inflation would be tantamount to understatement of the gains in virtually every series on Americans' monetary well-being—real GDP, consumption, wages, compensation and income.

References

Aschauer, David Alan (1985), "Fiscal Policy and Aggregate Demand," *American Economic Review* 75 (March): 117–27.

Cox, W. Michael, and Richard Alm (1995), "The Service Sector: Give It Some Respect," in Federal Reserve Bank of Dallas *Annual Report*, 3–22.

——— (1994), "These Are the Good Old Days: A Report on U.S. Living Standards," in Federal Reserve Bank of Dallas *Annual Report*, 2–15.

Kormendi, Roger C. (1983), "Government Debt, Government Spending, and Private Behavior," *American Economic Review* 73 (December): 994–1010.

Wynne, Mark A. (1992a), "The Comparative Growth Performance of the U.S. Economy in the Postwar Period," Federal Reserve Bank of Dallas *Economic Review*, First Quarter, 1–16.

——— (1992b), "How Serious Is the Productivity Problem in the U.S.?" Federal Reserve Bank of Dallas *Southwest Economy*, May/June, 1–3.

The Southwest Economy is published six times annually by the Federal Reserve Bank of Dallas. The views expressed are those of the authors and should not be attributed to the Federal Reserve Bank of Dallas or the Federal Reserve System.

Articles may be reprinted on the condition that the source is credited and a copy is provided to the Research Department of the Federal Reserve Bank of Dallas.

The Southwest Economy is available free of charge by writing the Public Affairs Department, Federal Reserve Bank of Dallas, P.O. Box 655906, Dallas, TX 75265-5906, or by telephoning (214) 922-5257.

Beyond the Border

The Tequila Effect

By devaluing its currency on December 20, 1994, Mexico inadvertently initiated what Latin America has started to call "the tequila effect" and what Michel Camdessus, managing director of the International Monetary Fund (IMF), has dubbed "the first financial crisis of the 21st century."

Effects of Mexico's peso devaluation rippled through the financial markets of the so-called emerging economies with unexpected intensity. It hit the stock markets of Poland, Turkey, South Korea,

TABLE 1 A Look at the Economic Health of Five Latin American Countries							
	Argentina	Brazil	Chile	Mexico	Peru		
1991—GDP growth ¹	8.9	1.2	6.1	3.6	2.8		
Current account balance ²	-1.6	0	0	-5.3	-7.6		
1992—GDP growth ¹	8.7	9	10.3	2.8	-2.3		
Current account balance ²	-3.7	1.6	-1.9	-7.8	-9.2		
1993—GDP growth ¹ Current account balance ²	6.0	4.1	6.0	.4	6.4		
	-2.6	1	-5.0	-7.0	-5.2		
1994—GDP growth ¹	6.5	5.3	4.4	3.0	12.0		
Current account balance ²	-3.5	5	-1.1	-7.0	-4.3		
¹ Annual rate. ² As a percentage of GNP.							

Taiwan and Hong Kong, but especially those of Latin America. By the end of February, Argentina's stock market had dropped 32.1 percent, Brazil's 33.6 percent and Peru's 28.7 percent.

It appears as if on December 21 investors lost the optimism toward Latin American economies they'd had just the day before. Mexico's large current account deficit and government short-term debt may have been harbingers of the Mexican crisis. But what followed in the rest of Latin America defies explanation in terms of macroeconomic indicators.

Since 1990, the economies of Argentina, Brazil and Peru have been growing two or more times faster than Mexico's (Table 1). Besides gross domestic product (GDP) growth, the current account balance as a percentage of GDP is another important gauge of economic performance because it measures a country's ability to repay its foreign debt. When this rate exceeds the rate of growth of the economy for a sustained period, an external debt crisis may be mounting. Of the economies listed in Table 1, none but Mexico's has consistently crossed this threshold. Nor have the four other economies had Mexico's

high concentration of short-term government debt (*Table 2*).

Why, then, are investors reacting in the same way to countries with different economic fundamentals? It is difficult to explain this tequila effect without taking two factors into account. First, financial links among the economies of Latin America were much more intertwined than most analysts initially thought, and second, the Mexican exchange rate crisis caught many Latin American economies in the middle of very deep and radical structural reforms.

One of the countries most adversely affected, Argentina, was implementing several new financial policies, including

a new convertibility law and a complete overhaul of the financial sector. Under the convertibility law, the central bank of Argentina can "print" one peso only if it receives one additional dollar (or its equivalent in other hard currencies). This law severely limits

the central bank's ability to act as a lender of last resort or to provide deposit insurance (bailing out financial institutions or depositors by printing money would violate the convertibility law). The Achilles' heel of this law is that, without a lender of last resort, the fear of a bank run could trigger one. For that reason, in early 1994 Argentina introduced regulatory changes in its financial system, with the ultimate goal of achieving full compliance of all its financial institutions with the international capital standards outlined in the Basle Accord. The peso devaluation disrupted this process—to the extent that a financial institution heavily exposed in Mexican government bonds and securi-

TABLE 2 External Debt of Five Latin American Countries, 1994						
	Total external debt as a percentage of GDP	Short-term* external debt as a percentage of GDP				
Argentina	31	3.6				
Brazil	26	6				
Chile	43	8.3				
Mexico	46	17.5				
Peru	54.1	5.6				
*One year or	less.					

ties became insolvent as the price of those assets fell. The fear of a generalized bank run, preemptive withdrawals, capital outflows and reallocation of funds among financial institutions that followed forced Argentina to request the assistance of the IMF and to adopt fiscal austerity measures that in the absence of the tequila effect wouldn't have been needed to sustain its convertibility law of a 1:1 peso-dollar exchange rate.

The tequila spillover didn't stop in Argentina. Brazil, also in the midst of overhauling its financial system, is one of Argentina's strongest trading partners. Fear of a crisis in one country quickly transfers to the other. Unlike Argentina, Brazil could not support the speculative attack against its currency and was forced to devalue. Chile's economy is also highly integrated with Argentina's. Over the past four years, more than two-thirds of all Chilean investment abroad has gone to Argentina. These economic and financial links may explain why Chile's stock market began to weaken in March 1995 as well.

However valid these ex post wisdom explanations, Tables 1 and 2 suggest important objective differences between the Mexican economy and those of other Latin American countries. Why, then, have domestic and foreign investors alike treated them with the same lack of confidence? Perhaps the answer lies in their common, pre-1990s past: a long history of huge budget deficits, runaway inflation, protectionist policies, even default on foreign debt payments. To some investors, Latin American economies may look like a consumer who has recently filed for bankruptcy. A tainted credit history limits a person's access to credit, especially in times of financial turmoil and scarce capital.

Countries, like consumers, need sound economic policies for quite some time to clean up their credit records. During periods of reform, a country runs the risk that any setback will be attributed to its reforms, and not to the unfortunate timing that may catch the country half-way into a process it failed to adopt much earlier. Along with technical expertise and political goodwill, successful reform may require a bit of lucky timing. If so, the solution to temporary setbacks is to keep reforms intact so opportunity will find these economies ready the next time it arises. Chile did exactly that in 1982, despite a financial crisis and a 14-percent decline in GDP. The reward: a "Latin American tiger," with 1983-94 average annual GDP growth per capita of 4.6 percent.

— Carlos E. Zarazaga

Regional Update

1994 was another strong year for the Eleventh District (Texas, northern Louisiana and southern New Mexico). For the sixth consecutive year, employment grew faster in all three District states than in the nation as a whole. Louisiana and New Mexico outpaced national growth in all major industrial categories. Texas grew faster than the nation in all major categories except mining, which lost jobs. Such broad-based growth illustrates the Southwest's appeal to all types of firms as a low-cost/low-wage region.

Other factors also contributed to the region's relative strength. Proximity to Mexico made the Southwest a major beneficiary of NAFTA. The finance,

insurance and real estate (FIRE) sector grew strongly despite weak employment growth nationally, and state and local government employment in District states grew at twice the national rate.

State-by-State Highlights

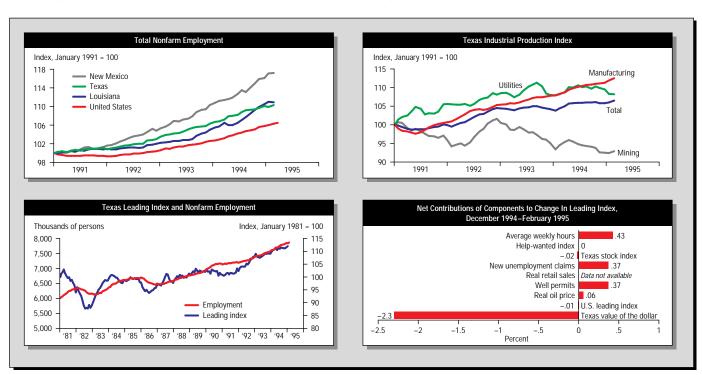
Louisiana. Casino gambling appears to be paying off for Louisiana, at least in the short run. In 1994, employment directly linked to river-boat gambling (hotels, amusements and water transportation) grew nearly 25 percent, accounting for one-sixth of the state's employment growth. Some of this growth may have come at the expense of Texas' tourism industries, which lost 3,400 jobs in 1994.

New Mexico. New Mexico has the region's fastest growing manufacturing and construction sectors. Manufacturing employment grew 5.5 percent in 1994, led by strong growth in the electronic and electrical equipment industry. Demand from the manufacturing sector helped generate double-digit growth in construction employment and nonresidential construction contract values. **Texas.** Texas appears to have profited from its position as a distribution hub and its efforts to deregulate intrastate trucking. Employment in railroad transportation and trucking and warehousing grew nearly 10 percent in 1994.

-Lori L. Taylor

Note

Based on job growth from December to December each year.



			Texas Employment				Total Nonfarm Employment			
	Texas Leading Index	TIPI Total	Mining	Construc- tion	Manufac- turing	Govern- ment	Private Service- Producing	Texas	Louisiana	New Mexico
2/95	110.9	118.9	157.3	401.6	1,021.0	1,437.8	4,849.0	7,866.7	1,780.9	681.9
1/95	109.9	118.4	156.9	402.8	1,016.5	1,437.5	4,826.6	7,840.3	1,781.8	681.5
12/94	111.3	118.2	157.7	396.0	1,014.6	1,434.3	4,846.5	7,849.1	1,774.5	675.3
11/94	111.9	118.2	159.6	390.9	1,013.2	1,429.0	4,827.5	7,820.2	1,764.0	674.2
10/94	112.0	118.5	160.6	387.4	1,012.1	1,426.6	4,814.8	7,801.5	1,755.1	669.0
9/94	111.9	118.4	162.9	385.4	1,009.6	1,426.2	4,810.0	7,794.1	1,743.8	664.5
8/94	112.1	118.4	162.4	382.6	1,009.7	1,430.0	4,800.2	7,784.9	1,729.3	658.3
7/94	111.4	118.3	162.5	380.1	1,008.0	1,422.1	4,784.0	7,756.7	1,719.4	660.2
6/94	111.2	118.3	162.8	377.1	1,006.4	1,415.0	4,757.4	7,718.7	1,710.3	655.4
5/94	110.5	118.2	163.3	374.7	1,005.3	1,408.0	4,747.4	7,698.7	1,701.8	651.1
4/94	111.4	118.0	164.0	376.5	1,002.8	1,402.5	4,751.0	7,696.8	1,702.3	649.3
3/94	110.7	117.2	164.2	373.4	999.7	1,396.4	4,712.8	7,646.5	1,709.2	648.4

FURTHER INFORMATION ON THE DATA

For more information on employment data, see "Reassessing Texas Employment Growth" (Southwest Economy, July/August 1993). For more information on TIPI, see "The Texas Industrial Production Index" (Dallas Fed Economic Review, November 1989). For more information on the Texas Leading Index and its components, see "The Texas Index of Leading Indicators: A Revision and Further Evaluation" (Dallas Fed Economic Review, July 1990).

On-line economic data and articles are available on the Dallas Fed's electronic bulletin board, FEDFLASH (214-922-5199 or 800-333-1953).