



Federal Reserve  
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## **Framing the Future: Tomorrow's Border Economy**

**A** Dallas Fed  
conference examines  
how recent global  
economic trends, trade  
patterns and post-9/11  
security issues  
have reshaped the  
U.S.–Mexico border.

In early December about 175 people gathered in El Paso for a conference on U.S.–Mexico border issues, hosted by the El Paso and San Antonio branches of the Federal Reserve Bank of Dallas in cooperation with the University of Texas at Brownsville. The purpose of the conference, “Framing the Future: Tomorrow’s Border Economy,” was to explore how recent global economic trends, trade patterns and post-9/11 security issues have reshaped the U.S.–Mexico border.

The conference did not set out to predict the future of the border, but rather sought to examine how the border economy has been changed and repositioned in recent years by a series of sweeping events. Trade stands out among the changes, beginning with the post-World War II establishment of the General Agreement on Tariffs and Trade (GATT), the opening of Mexico in the 1980s and finally implementation of the North American Free Trade Agreement (NAFTA). But there have also been extensive cyclical and structural changes in global manufacturing, changes that have brought boom and bust to the border’s most powerful economic engine, the maquiladora industry. Most recently, post-9/11 security issues have slowed the cross-border movement of goods

and people, threatening to stop or reverse the economic integration enjoyed on the border in recent decades.

To frame the future, we need perspective on where we have been and where we are today. Knowing where we are today can be difficult when the landscape beneath your feet is constantly changing. We are only now beginning to sort out, separate and understand how these global trends affect the United States, Mexico and the border between them.

Speakers at this conference were charged with providing insights into where the border stands today and how trade, manufacturing and security issues will influence our future. (See box for a list of speakers.) As indicated by the summary of their remarks below, the presenters were highly successful in bringing new perspectives on often complex and interwoven issues.

### **Perspective on Trade**

Grant Aldonas, undersecretary for international trade administration, U.S. Department of Commerce, offered a strong message about the power of international trade, its ability to raise the prospects for growth and how it drives participants toward their comparative advantage. The microeconom-

ic advantages of trade's ability to drive lower prices and deliver higher quality for consumers are too often missed in trade de-



Aldonas

bates, as is trade's ability to create new, highly focused options for investors at home and abroad.

Aldonas discussed manufacturing's recent struggles over the last recession (a 6 percent drop in industrial output versus 0.5 percent for gross domestic product) and said the adjustment had been structural as much as cyclical. First, the success of trade policy, from GATT to NAFTA, has reduced U.S. tariffs from 60 percent at the end of World War II to a trade-weighted average of 2 percent today. Second, recent advances in telecommunications, computing and transportation mean that any company that *can* operate a global supply chain *must* operate one. This has allowed much more competitive pressure into U.S. markets. Finally, the end of the Cold War allowed integration of Eastern Bloc economies into the West, but for a period of time it brought excess capacity, especially in heavy industry.

Growth in trade creates special opportunities for the border, often making it the focus of new investment and economic growth. Aldonas said that NAFTA was a signal event because it opened supply lines across the U.S.–Mexico border, turning border cities into platforms for global competition. If there has been an

Achilles' heel in the process, it is that the physical infrastructure needed to facilitate cross-border trade has failed to match rapidly growing needs. Although organizations such as the U.S.–Mexico Partnership for Prosperity have been effective in bringing the need for infrastructure to the attention of both governments, the border cities themselves can and should do more to bring these constraints on trade to the forefront.

### Current State of Border Integration

The first panel assessed the current economic state of the U.S.–Mexico border, particularly looking for evidence of economic integration. Senior economist Keith Phillips of the Dallas Fed's San Antonio Branch described recent



Phillips

economic developments in Texas border cities and the cities' near-term prospects for growth. He emphasized that Texas border cities differ from other Texas cities; they are subject to more factors that can affect their growth, such as U.S. industrial activity, the course of the Mexican economy and the dollar–peso exchange rate. The border's history is a combination of good and bad news, of strong job growth often accompanied by high unemployment rates and poor per capita income growth. It seems to adapt quickly to changes in trade flows or regulatory structure.

Using an analysis of trends in

the recent performance of border city economies, Phillips concluded that economic expansion in El Paso, Laredo, Brownsville and McAllen is correlated to Mexico's economy, but that of the four cities El Paso is the more stable, slower growing and most closely tied to Texas and the U.S. economy. El Paso's links to the United States are primarily through industrial production, especially the very large concentration of maquiladoras in neighboring Ciudad Juárez. Laredo, Brownsville and McAllen have been faster growing and more dynamic in recent years, as well as more closely tied to Mexico and the exchange rate. The strong peso has helped retail shopping in Laredo and McAllen.

Based on expected performance of the chief drivers of the Texas–Mexico border region—the U.S. and Mexican economies, industrial output and the exchange rate—Phillips predicted solid short-run performance along the entire border. The longer run picture will depend on how well these cities address such issues as education, water, transportation, immigration and border security.

Howard Shatz, research fellow at the Public Policy Institute of California, described progress in economic integration along the California–Mexico border. Cali-



Shatz

fornia shares only 145 miles of the 2,000-mile U.S.–Mexico border, a circumstance that concen-

# Framing the Future: Tomorrow's Border Economy

December 3, 2004, El Paso, Texas

## Speakers

### Opening Address:

**Grant Aldonas**, Undersecretary for International Trade Administration, U.S. Department of Commerce

### Panel I: Recent Economic Trends Along the U.S.—Mexico Border

**Alejandro Díaz-Bautista**, Professor of Economics, Colegio de la Frontera Norte

**Keith R. Phillips**, Senior Economist, Federal Reserve Bank of Dallas, San Antonio Branch

**Howard J. Shatz**, Research Fellow, Public Policy Institute of California

### Panel II: Convergence/Divergence Along the North American Borders: Are We There Yet?

**Serge Coulombe**, Professor of Economics, University of Ottawa

**James B. Gerber**, Professor of Economics, San Diego State University

**Javier Sánchez-Reaza**, Economist, Centro de Investigación y Docencia Económicas

### Keynote Address:

**Kristin J. Forbes**, President's Council of Economic Advisers, Washington, D.C.

### Panel III: The Border After 9/11

**James R. Giermanski**, Chairman, Department of International Business, Belmont Abbey College

**Garrick Taylor**, Director of Policy Development, Border Trade Alliance

**P. T. Wright, Jr.**, Executive Director, U.S. Customs and Border Protection, US-VISIT

### Panel IV: Perspectives on the Future of the Border

**Jorge Bustamante**, Professor of Sociology, University of Notre Dame

**John H. Christman**, Director of Maquiladora Industry Services, Global Insight, Inc.

**Manuel Suárez-Mier**, Chief Economist, Latin America, Bank of America

trates 5.4 million people, a quarter of the border's truck traffic to support trade and a third of its pedestrian traffic into a compact region. In 1999, Mexico displaced Japan as the top destination of California exports, and joint production in electrical and nonelectrical machinery dominates this trade. However, the short border and the distance to the state's high-tech center in the San Francisco Bay area have sometimes presented barriers in developing fully integrated cross-border trade in these industries.

Integration on the California border is apparent in shared infrastructure—electrical generators near Mexicali, wastewater treatment facilities in Tijuana and proposed liquefied natural gas (LNG) receiving stations in Baja California. In fact, the major challenges to integration lie in

the need for more common transportation infrastructure and forward movement of proposed energy and wastewater facilities.

Shatz concluded that barring major policy changes, further regional integration will continue to be driven by history, geography and trade. Four million California residents born in Mexico, and millions of others of Mexican heritage, will have a strong interest in furthering this integration.

Alejandro Díaz-Bautista, professor of economics at the Colegio de la Frontera Norte, described recent trends in the northern border states of Mexico, comparing them both to U.S. border states and to the national norm in Mexico. He characterized northern Mexico as heterogeneous and complex, cut off from the social and political life in the center of

the country and exhibiting advanced economic development. The northern Mexico economy is differentiated today by its focus on manufacturing, specialization of work and corresponding rapid



Díaz-Bautista

technological advancement. The region is highly urbanized, with 90 percent of the population in the urban twin cities, dominated in number by Ciudad Juárez—El Paso and Tijuana—San Diego.

Trends in employment, gross domestic product, exports and foreign direct investment all point strongly to the importance of the maquiladora in the northern Mexico economy, driven largely by low labor costs and a location near the U.S. market. Between 1990 and 2000, Mexican exports to the United States quadrupled, with NAFTA, global trends in offshore manufacturing and exchange rates all playing a role. Although Díaz-Bautista sees some signs of integration of the energy network in gas interconnections, electric power and proposed LNG terminals, manufacturing remains the primary lever for integration (and growing economic synchronization) along the U.S.–Mexico border.

### Trade, Geography and Income

The second panel looked at the power of trade to reshape economic geography and industrial location. Serge Coulombe, an economics professor at the University of Ottawa, discussed the impact of trade integration between the United States and Canada on Canada's industrial mix. The effect of NAFTA on



Coulombe

Canada (which Coulombe described as essentially a border economy) was dramatic, with the share of trade in the Canadian economy rising from 51 percent to 86 percent between 1990 and 2000. This increase in trade was virtually all with the United States, indicating significant eco-

nomics integration between the two nations. A major debate in Canada centered on whether the NAFTA-driven integration would make the economy more specialized—a peripheral region of the United States, concentrated in forestry and other primary products—or whether it would favor industrial diversification. The question had implications for regional business cycles and the extent of industrial dislocation occurring under NAFTA.

Competing economic theories make the question empirical, and Coulombe and a co-author brought to bear data on exports and imports across 290 industries in 10 Canadian provinces from 1980 to 2000. The main result, robust to several methodologies, favored increased industrial diversification as trade grew between the United States and Canada. There was some indication of short-run specialization on impact with the opening of trade, but long-run diversification moves quickly, with half the impact of diversification complete within 2.5 years.

The explanation of this result probably depends on backward and forward linkages. After tariff reduction, specialization may occur in one product, and backward linkages attract labor with specific skills to the region. This, in turn, attracts other industries that can use similar skills, which results in diversification. Or, instead of labor, this diversification can be built on linkages to primary or intermediate materials.

Javier Sánchez-Reaza, an economist at the Centro de Investigación y Docencia Económicas in Mexico City, related how trade has altered the economic landscape of Mexico. He described the pre-1985 period of a closed Mexican economy, the initial opening of Mexico's economy when it joined GATT in 1985, and the radical opening to trade and for-

ign investment forced by NAFTA. The pre-1985 period, with the economy closed, naturally placed Mexico City and central Mexico at the heart of the country's eco-



Sánchez-Reaza

nomically. After GATT, and especially after NAFTA, the draw of the world's largest economy moved the locus of trade, foreign direct investment and growth to the northern Mexican states. This shift to the north, however, disrupted a long period of income convergence among the Mexican states, with an inverse relationship between per capita GDP and average annual growth rates. GATT and NAFTA reversed this trend, with the affluent northern states now outgrowing the rest of the country.

Sánchez-Reaza also looked at the performance of Mexico's industrial regions before and after NAFTA. The old Mexico City industrial belt has seen its share of Mexico's manufacturing decline, while Guadalajara and Monterrey have held their share of industry. The border states, especially Chihuahua and Baja California, have experienced dramatic gains.

James B. Gerber, an economics professor and director of the Center for Latin American Studies at San Diego State University, addressed the question of income convergence along the U.S.–Mexico border. He examined the U.S. counties and Mexican *municipios* that touch the U.S.–Mexico border for signs of con-

vergence since 1970. The expectation of income convergence—the opportunity for the poor to catch up with the rich—is among the fundamental rationales for all of Mexico’s reforms since the 1980s, including NAFTA. Convergence is expected with the freer movement of goods, technology transfer across borders and the merging of tastes and preferences.

The measure Gerber uses to compare border convergence is gross product per capita. Data for the comparison of U.S. counties to Mexican *municipios* are less than ideal and require a



Gerber

number of assumptions. Once constructed, the data are deflated over time using indexes based on purchasing power parity. The measure chosen does not allow for tax differences, tell us anything about income distribution or allow for factor payment paid outside the country or *municipio*. However, given the qualifications, the results show strong indications that the poorest counties/*municipios* are catching up, converging with the rich ones at a rate of about 1 percent per year. If specific allowance is made for differences in educational levels (about 80 percent of U.S. workers on the border have a high school degree, while only 30 percent of Mexican workers have the equivalent), then the rate of convergence doubles to about 2 percent per year. Across time periods, strong conver-

gence between the United States and Mexico is particularly notable after NAFTA.

### Manufacturing

Kristin Forbes, a member of the President’s Council of Economic Advisers, began with a list of famous pairs, like Ben and Jerry or Sam and Frodo, making the point that her talk would be about another close-knit pair: U.S. manufacturing and the maquiladora industry. Knowing the status of U.S. manufacturing, you can be sure that the border maquiladoras are not far away.

The 2001 U.S. recession was mild, but the economy was slow to recover. Manufacturing sustained a much larger and harder recession, and industrial recovery began only in the fall of 2003, two years after the recession ended. Manufacturing employment fell by 2.7 million between February 2001 and February 2004, reaching the lowest level since 1950. Why was the recession so long and different for manufacturing? Forbes blamed the severity on unusual weakness in business investment and exports.

Investment growth was unusually rapid in the late 1990s, and overspending prevented a quick bounce-back after the recession ended. The wait for recovery was stretched out even further by uncertainty generated by the accounting scandals, 9/11 and the Iraq War. Exports normally support growth in recession, but this time they were a drag on growth, partly due to slow growth among our trading partners. Amplifying job loss was the very strong growth in manufacturing productivity, which has acted to depress industrial job growth since the 1950s. As economy-wide productivity accelerated in recent years, manufacturing productivity growth accelerated along with it, again

reducing the need for industrial workers. Forbes noted that productivity growth is also occurring in areas like China, where despite the well-publicized growth in manufacturing, jobs in the sector have declined by millions.

Forbes said that China’s role in the current downturn is often overstated. Trade with China is exaggerated in the public mind because it is in highly visible products like apparel, sporting goods and toys. Although U.S. trade with China has sharply accelerated in recent years, the U.S. share of trade with Asian rim countries has been fixed. This suggests that China is stealing jobs from Taiwan and Vietnam, not from the United States. Further, most of the sectors that have sustained large job losses recently are not ones that compete head-to-head with China. The



Forbes

most important exception to this, certainly from the perspective of the border, is textiles and apparel, a sector of the maquiladora industry that has seen heavy losses in recent years.

The good news is that U.S. manufacturing is now rapidly recovering, adding 86,000 new jobs since February 2004. Output is up 6 percent from the trough. Business investment and exports are now contributing strongly to the recovery. The key factor in the recovery has been strong expansion in the U.S. economy and among U.S. trading partners. Forbes suggested a number of

specific proposals to make the United States a more attractive place for both domestic and foreign companies. These proposals include tort reform, permanent tax relief, affordable health care, and an affordable and predictable energy supply.

Forbes noted that the return to robust health in U.S. manufacturing suggests the U.S. industry/maquiladora pair is likely to come to a good end—less like Thelma and Louise, more like Batman and Robin.

### Border Security After 9/11

The events of September 11 brought a new era to the border. Integration of the U.S. and Mexican economies was to be built on the easy flow of goods, services and people across the border. The threat of terrorism initially slowed this traffic dramatically in the fall of 2001 and the winter that followed. Commerce on the border has proven



Taylor

resilient in the face of new security programs, but the steeper trade-off between commerce and security was the focus of the third panel.

Two speakers addressed the US-VISIT program: P. T. Wright, executive director of U.S. Customs and Border Protection, US-VISIT, and Garrick Taylor, director of policy development for the Border Trade Alliance. Taylor described the history of US-VISIT (United States Visitor and Immigrant Status Indicator

Technology), a program that has generated fear, consternation and uncertainty at all points on the border. US-VISIT will provide an integrated entry and exit control system for nonimmigrant visitors to the United States, entailing photo and biometric screening. The initial reaction to these proposals from cities that are major land ports was vehement opposition, based on visions of border cities turned into parking lots and resulting lost retail sales.

Although we now tend to see US-VISIT from a post-9/11 perspective, the enhanced entry and exit program was mandated by legislation in 1996 and then delayed by further legislation in 2000. The 2000 legislation (the Data Management Improvement Act) set the deadlines now in force: December 31, 2003, for air and seaports; December 31, 2004, for the 50 largest land crossings; and December 31, 2005, for all 317 points of crossing. The effect of 9/11 was to slowly bring border cities to the realization that an exit and entry control system was inevitable and that it was in their best interest to get on board and help develop it.

Wright carefully laid out where the program currently stood. Deadlines for 2004 were being met, with the 50 largest land crossings on schedule for implementation by year-end. However, through 2005, the typical border crosser (with laser visa and a limited stay in the United States) will not be affected. Only the 3 percent of visitors requiring secondary screening, most applying for visits to the U.S. interior, will require a photo and fingerprinting. Taylor pointed out, however, that it remains a homeland security objective to ultimately have biometric screening of *all* visitors, and here the schedule remains unknown.

An exit program has never existed in the United States, and

return to the home country has primarily been based on an honor system. Exit programs are now being tested at five airports, and a system is being developed for land crossings. Current proposals



Wright

are for radio frequency or proximity readers, similar to those used on toll roads to read electronic tags and charge the appropriate owner of the passing auto. One proposal, for example, is for the reader to take data from a chip somehow attached to the existing laser visa. It is still unclear how this might work effectively with a van carrying two or more families back from vacation in San Antonio, for example. Wright promised a 21st century solution for the problem that will avoid kick-out lanes and extensive traffic jams.

The third speaker on security issues was James R. Giermanski, professor and chairman of the department of international business at Belmont Abbey College. Giermanski expressed significant doubts about the efficacy of truck security programs along the southern border. Much of his evidence came from a study he co-authored with U.S. Customs broker Daniel B. Hastings, Jr. Giermanski cited Customs-Trade Partnership Against Terrorism (C-TPAT), a voluntary program to accelerate screening of trusted carriers, where trust is earned by compliance with rigid rules on cargo handling and controlled movement of goods. Gierman-

ski's concern was less with C-TPAT than with its limited coverage: Only 350 trucking firms and 80 Mexican manufacturers (of 10,000) were covered as of June 2004.

The rest of the transportation system—including the vast



majority of trucks moving north—is outside rigid controls. At origin, the Mexican driver may not know what is in his trailer, especially if it is sealed, and little is likely to be known about the manufacturer who sealed the trailer. The driver should go directly to a drop lot on the border. Did he do so? How secure is the lot? What do we know about the drayage company and customs broker that handled and moved the cargo across the border?

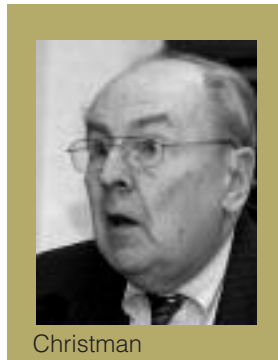
Giermanski offered a number of suggestions to improve the system. They include smart containers; free trade zones (*recintos fiscalizados*), where the United States gains some control of the shipment in Mexico; inland cargo release; and improved drayage and drop lot security. He emphasized a need for real intelligence in the customs program to better understand terrorist threats.

### Perspective on the Border's Future

The final panel looked to the future by examining key aspects of the U.S.–Mexico border economy. John Christman, director

of Maquiladora Industry Services at Global Insight, Inc., offered an overview of the maquiladora industry's outlook. Maquiladoras continue to play a lead role in the evolution and development of the border region, with over 60 percent of the industry situated in Mexican border cities and over 80 percent in the six northern states of Mexico.

Christman described the recent turnaround in maquiladora activity, with the first three quarters of 2004 bringing 87,700 new jobs, 22 new plants, a 7.7 percent increase in output and a 22.5 percent increase in direct foreign investment. The timing and speed of the return owes



much to improvement in U.S. industrial activity, as described earlier by Kristin Forbes.

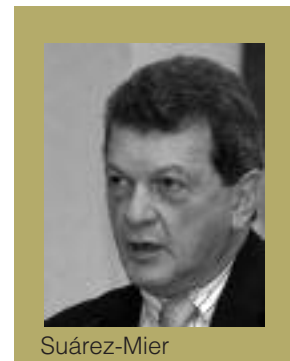
Christman also spoke to the near-term environment in Mexico for maquiladora activity. He sees prospects for GDP growth near 4 percent in 2004 but slowing in 2005–06. Monetary discipline and record foreign exchange reserves (\$58 billion) promise economic stability. High oil prices are bringing continued good revenues and foreign exchange earnings, and Mexico maintains a solid country-risk rating. On the negative side are stalled reforms in energy, labor and taxes and large gaps in infrastructure, education and investment. The current administration seems incapable of providing leadership in reform,

and none of the current leading presidential candidates appears to know much about maquiladoras or the border.

The first of the new free trade zones has now been approved in San Luis Potosí. The key competitive sectors for the maquiladoras are auto parts, aerospace, electronics, software, medical instruments and metal mechanics. The emerging maquiladora is increasingly high-tech, high-complexity and capital-intensive and has a business model that incorporates its own engineering and research and development. Christman cited an ongoing need to streamline Mexico's rules and regulations governing the industry.

Manuel Suárez-Mier, chief Latin American economist for Bank of America, discussed political and economic issues in Mexico that are important to the border. He pointed out that at one time Washington and Mexico City ignored the border (usually a good thing, he added), but 9/11 has made the border an issue that will not go away in either capital.

Suárez-Mier described a political atmosphere in Mexico of strong anti-U.S. feeling because of the Iraq invasion. But he also



criticized the Fox administration's management of public opinion. He felt that Mexico squandered the goodwill and opportunity offered by the initial meeting four years ago of Presidents Fox and

Bush in León, Guanajuato. The political incentives for the United States to court Mexico are still in place, given the growing political clout of the large Mexican–American population, but Mexico has been unable to capitalize on this advantage.

Mexico has also been unable to move forward on immigration. Officials have failed to see security issues as a new opportunity to rationalize the current unhealthy system of millions of illegal immigrants in the United States. Security on the southern border also could be used as a lever to build on other policy areas important to Mexico.

Suárez-Mier described a revised agenda for Mexico that seems improbable today but could be possible with the right leadership: immigration reform, large investments in infrastructure, the stalled tax and energy reforms, antitrust legislation and a customs union with the United States. Unfortunately, Mexico has passed no significant reforms since NAFTA, and, like Christman, Suárez-Mier is not optimistic that coming elections will bring farsighted leadership.

Finally, Jorge Bustamante, professor of sociology at the University of Notre Dame, discussed the opportunities and problems the border faces. While the border is a dividing line between two countries, great contrasts in economic well-being are evident on the U.S. side; San Diego County in California and Zapata County in Texas are high and low watermarks for U.S. per capita income, for example. Except for San Diego, the U.S. side of the border is poor by U.S. standards, while northern Mexico is above average for Mex-

ico by nearly every development indicator. Often you can see in the border region what you choose to see. Two years ago *Time* magazine called the



Bustamante

border area the new Mexico-America, a place with a vibrant and brilliant future; *Time* recently returned to the border with a pessimistic focus on crime, immigration and poverty.

Bustamante called the border the place where the United States joins Latin America, and its progress will be a measure of how well America globalizes. He cited the growing interdependence of twin border cities such as El Paso and Ciudad Juárez. This will be the front line of globalization, and the question is how well both countries will deal with the problems and opportunities—two cultures, two languages, two dominant religions and a common environment to protect.

Bustamante said that while we think about the border as the proximity of two nations, it can also be approached in terms of regions. He described a new and emerging triangle of activity marked by Monterrey, San Antonio and Houston evolving from a new pattern of cross-border trade. He said the success of South Texas cities such as Laredo and Brownsville is built partly on their location at the center of this new subregion.

All is not rosy, however, as national sovereignty has become

a major issue since 9/11. However, Bustamante thinks that the advantages of cultural enrichment and economic integration will eventually wear these security issues down to secondary importance. The border has always been fluid and quick to adjust. Despite 9/11, we continue to see in San Diego–Tijuana and El Paso–Juárez, for example, the most intensive pace of international interaction anywhere in the world.

— Robert W. Gilmer  
Keith Phillips  
Jesus Cañas  
Roberto Coronado

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