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Will Reforms Pay Off This Time? Experts Assess Mexico's Prospects

By Jesús Cañas, Roberto Coronado and Pia Orrenius

exico's sharp first-quarter slowdown isn't entirely surprising. While the country has made considerable economic advances in recent years, its growth is closely tied to that of its northern neighbor, and the U.S. economy stalled at year-end. Some Mexico indicators, such as industrial production, have been flat since mid-2012.

The lackluster performance, although a cause for concern, gives impetus to the efforts of Mexico's new president, Enrique Peña Nieto, who in his first months has worked with the nation's major political parties to achieve labor, education and telecommunications reforms. Judicial, banking and energy industry changes are in the works.

The Pact for Mexico represents the latest attempt over a three-decade span to achieve reforms and propel the nation forward.

The challenges Mexico confronts as it seeks to become a leader among emerging economies were considered at a Federal Reserve Bank of Dallas conference, "México: How to Tap Progress," last fall in Houston.¹ The meeting explored why economic expansion in Mexico has barely kept up with population growth and why the nation's per capita income growth has trailed that of emerging-market economies such as Brazil and Chile.

The current environment appears pivotal. Economic crises that gripped Mexico in the 1970s, '80s and early '90s wiped out much of the progress previously achieved. Punishing inflation stole purchasing power and savings from citizens and eroded trust in the government and its institutions. Some reforms succeeded, some failed and some fell short of their promise.

Over time, macroeconomic reforms achieved notable progress

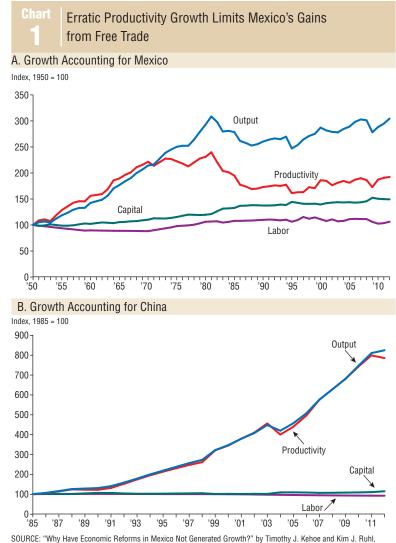
as measured by openness to trade, low inflation and fiscal discipline. In a dramatic turnaround, Mexico has become by far the biggest exporter in Latin America. The transformation stems from changes dating back 20 years or more that include removal of trade barriers, establishment of central bank independence, economic diversification, transparency of government, and lawmakers' commitment to fiscal restraint.

The Dallas Fed conference examined the global competition Mexico faces from China, the legacy of Mexico's early institutions, and the nation's hopeful democracy that still benefits the wealthy few over the emerging middle class and its entrepreneurs. Also on the agenda were the informal economy, which employs the majority of Mexico's labor force but lacks investment, and national energy monopoly Pemex, whose oil production has dwindled in recent years. Other topics were the rule of law and the drug cartels' impact, particularly along the border.

Standing Next to China

In his opening address, "What Does Mexico Need to Do to Roar Like a Latin American Puma?" University of Minnesota professor Timothy Kehoe investigated why Mexico's growth hasn't matched China's in recent years, even as both countries emerged as major global traders.

Mexico opened itself to trade as part of impressive economic reforms enacted from 1984 to 1995, becoming a major exporter and experiencing massive capital inflows. Nevertheless, Mexico's output growth has been sluggish, primarily due to poor productivity growth, especially in the nonmanufacturing sector (*Chart 1A*). China's output growth, by comparison, has shot up (*Chart 1B*). Four institutional factors hold back Mexico: risk-averse banks that restrain lending, a lack of contract enforcement, inflexible labor markets and "pirates."



SOURCE: "Why Have Economic Reforms in Mexico Not Generated Growth?" by Timothy J. Kehoe and Kim J. Ruhl, Federal Reserve Bank of Minneapolis *Staff Report* no. 453, November 2010; updates by Kehoe and Ruhl.

Poor business practices, rather than standard trade theory, account for Mexico's performance, Kehoe said. The World Bank ranks Mexico 48th on its list of best places to do business (by comparison, the U.S. is fourth). Four institutional factors hold back Mexico: risk-averse banks that restrain lending, a lack of contract enforcement, inflexible labor markets and "pirates."²

"By pirates, I mean all inefficient companies and businesses that are an impediment to the implementation of best business practices," Kehoe said, citing Mexico's telecommunications, transportation, electricity and energy industries.

Although China's barriers to growth are identical to Mexico's, China is developing rapidly for the same reasons Mexico did from 1950 to 1980: urbanization, industrialization and the spread of basic education, Kehoe said. When this catchup growth wanes—in as soon as five to 10 years—China's rapid growth will also stop, Kehoe said.³

Assessing "Mexico's Competitive Position in the New Global Economy," professor Gordon Hanson of the University of California at San Diego concurred with Kehoe that Mexico's performance has been lackluster over the last 25 years.⁴ Real per capita (GDP) growth averaged only 1.1 percent annually during the period, and Mexico's share of global GDP fell from 2.5 percent to 2 percent, Hanson said. However, Mexico significantly reduced poverty—the share of the population living on less than \$2 per day dropped from 20 percent in the mid-1990s to 5 percent today.

Imperfect credit markets, a large informal sector, a telecommunications monopoly, and energy sector inefficiency are underlying problems, Hanson said. Domestic credit to the private sector is less than 30 percent in Mexico, compared with 50 percent in India and more than 60 percent in Brazil. The informal (mostly unregulated) sector traps labor in small, low-productivity firms. A lack of competition in input markets has led to high input costs, such as expensive electricity, harming manufacturing. Additionally, he said, increased Chinese competition provides an economic headwind for Mexico because it has the misfortune of "producing what China produces and not what China buys." China's global share of manufacturing exports has risen since 1990 from 2 percent to 14 percent.

The good news is that Mexico has survived China's rise and, looking ahead, the China threat is waning, Hanson said. Mexico retains a comparative advantage in transportation equipment, electrical machinery and electronics. Moreover, Mexico's terms of trade in labor-intensive manufacturing have improved amid cost increases in China. In 1996, average per capita annual manufacturing sector earnings were \$3,000 per year in Mexico and \$1,000 in China. By 2008, China's costs had risen threefold, shrinking the cost differential between the two countries from 3:1 to 1.3:1.

Two other factors boost the Mexican outlook—educational attainment is keeping up with other developing countries such as China and the Philippines, and while Mexico is highly urbanized, its proportion of city dwellers is relatively small. Mexico's share of population in cities of more than 1 million inhabitants is 35 percent, compared with 45 percent in the U.S. Education and urbanization go hand-in-hand with economic growth, Hanson said.

Weak Institutions

Stanford University professor Stephen Haber's presentation, "Mexico: The Long Reach of Inequality and Authoritarianism," explored the historical roots of the country's problem with pirates.

He traced the evolution of anticompetitive practices to deep, long-standing inequality. Only 2 percent of rural Mexican households owned land in 1900, compared with 90 percent in Canada and 70 percent in the U.S. Income inequality breeds authoritarianism because, in a functioning democracy, voters favor redistribution of income, Haber said. Mexico, based on its inequality measure, has been authoritarian for most of its history, becoming a democracy only after 2000 (*Chart 2*).⁵

Income inequality and authoritarianism adversely affected economic development. Investors were reluctant to invest and banks to lend, given a lack of property rights and high expropriation risk. Banks, confronting an inability to enforce the terms of loans, limited their transactions, stymieing financial development. The government, attempting to induce investment, limited competition and kept taxes low on income and capital. The combination of meager government revenue and nondemocratic rule vielded relatively little public investment in human capital, such as basic education, constraining labor productivity. Access to capital became a barrier to entry, and a handful of large companies dominated most industries-a situation that persists.

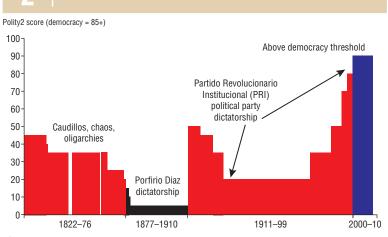
Haber offered two recommendations for reform: Mexico should tax property—such taxes are virtually nonexistent in the country—and use the revenue for investment in public goods, and it should end term limits for state and local politicians. This would encourage officials, who could run for reelection, to invest in education, courts and police. "You can sign a trade agreement with a stroke of a pen, but reforming institutions is a glacial process," Haber cautioned.

Labor Market Informality

Fausto Hernandez Trillo, a professor at Centro de Investigación y Docencia Económicas in Mexico City, addressed the question "Why Don't Reforms Deliver Growth in Mexico?" The main reason for Mexico's tepid economic growth over the last 30 years has been diminishing total factor productivity (TFP) (*Chart 3*) despite more than 400 reforms since 1988, he said.⁶

Only one-fifth of the 3.7 million firms in Mexico are in the tax-paying formal sector.⁷ The remainder makes up the informal economy, which accounts for 72 percent of private sector employment. "There are two Mexicos," Hernandez Trillo said, "a modern, productive formal sector with large firms, and a poor informal sector dominated by small, unproductive firms."

Highly anticipated fiscal reform will be insufficient to lift TFP if it is not



Mexico Barely Out of Authoritarianism



SOURCE: Polity IV Project, 2010 update, www.systemicpeace.org/polity/polity4.htm.

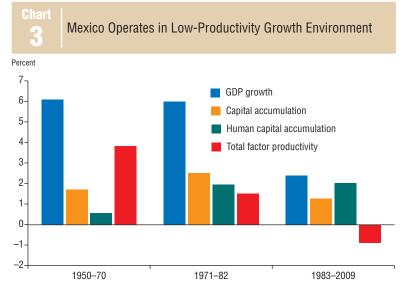
combined with social security improvements, Hernandez Trillo said.⁸ Under the current system, formal sector workers and employers pay for bundled health and pension benefits; informal sector participants benefit from unbundled parallel programs paid for by the government (*see "Spotlight," page 12*). Hernandez Trillo proposed universal social insurance funded by a broad-based, value-added tax rather than by employers. This could help end informality and increase TFP 2 percent, he estimated.

While Hernandez Trillo argued that providing social insurance to the informal sector may be detrimental to formality, Oliver Azuara, an economist with the Inter-American Development Bank, offered contrary evidence in his presentation, "Informality and the Expansion of Social Protection Programs: The Case of Mexico." Seguro Popular, the government program providing health care for informal sector workers, increased its coverage from 200,000 people in 2002 to 53 million people in 2012. The program's expansion didn't significantly increase informality in urban areas, though informality did rise among certain subgroups, such as urban workers with nine or fewer years of education, Azuara found.9 Health benefits are likely not the key reason people choose to work formally or informally, he said, but the program

has a positive economic impact because healthier workers have greater labor productivity.¹⁰

Benjamin Temkin, a professor at Facultad Latinoamericana de Ciencias Sociales in Mexico City, noted in his paper, "Understanding Informal Employment in Mexico," that the much-maligned informal sector is large and ubiquitous but has advantages. In the typical Latin American country, 70 percent of the labor force is in the informal sector; in Mexico, 61 percent of the 44-million-person labor force is in the sector. Informal sector jobs are characterized by low wages that result in cheap goods and services and low unemployment. Such jobs also prevent social unrest and reduce criminality.

Temkin asked whether people choose informal employment or are forced into it and, relatedly, whether informal self-employment reflects entrepreneurship or is a survival strategy. Informal economy workers tend to be older, less educated and female and earn less than formal sector workers, he said. Opinion survey results suggest they are also less likely to be happy, and they have a diminished assessment of their health status.¹¹These findings suggest informal sector employment is not the preferred choice of workers but one in which they are forced, Temkin said. Rather than shut



SOURCES: "Demographics, Human Capital and Economic Growth in Mexico: 1950–2005," by Rodrigo García-Verdú, Poverty Reduction and Economic Management unit, Latin American and the Caribbean region, World Bank, June 2007; data updates from Fausto Hernandez Trillo, Centro de Investigación y Docencia Económicas. down informality, he advocated reforming the formal sector by boosting its flexibility, removing barriers to entry and providing incentives for formalization of occupations such as domestic service.

Limited Oil Competition

Rice University economist Kenneth B. Medlock discussed Mexico's declining oil production and the possibility that the country could become a net oil importer by 2027 if present trends continue.¹² In his paper, "Mexico's Unfulfilled Potential: Scenarios for Oil Supply, Demand and Net Exports for Mexico," Medlock argued that Mexico can continue as an important oil supplier only if it can log reserve replacements from more cost-efficient development of existing holdings, locate new discoveries and realize lower growth of domestic demand.

Mexico, with large proven and potential oil and gas resources, requires investment at a time when the state-owned oil company, Petroleos Mexicanos (Pemex), lacks resources and technology for exploration. Pemex is relatively inefficient on the average revenue-efficiency scale (Chart 4). Unlike most major international oil producers, Pemex's earnings aren't reinvested but rather are diverted to other government revenue objectives.¹³ So while there is an urgent need for investment in upstream production of oil and gas, the Pemex monopoly doesn't respond, and regulations prevent foreign firms from booking Mexican reserves. Without that ability, outside investors will invest elsewhere, Medlock said.

The Eagle Ford Shale oil boom in south central Texas exemplifies regulatory differences-even as activity accelerates north of the border, there is no drilling or production in northern Mexico despite the contiguous geology. Independent investors lacking the hefty capital required for projects abroad or for deepwater exploration operate the vast majority of Eagle Ford projects. The key driver for investment has been the ability to book reserves on balance sheets. The result: sharply rising oil production in the Eagle Ford, from nothing four years ago to more than 700,000 barrels per day currently.

In "Mexico's Meandering Telecommunications Sector," Ernesto Flores-Roux, a professor at Centro de Investigación y Docencia Económicas, cited an Organization for Economic Cooperation and Development study that calculated annual welfare loss of 1.8 percent of GDP attributable to excessive prices for telecommunications services.14 Mexico's telecommunications sector lacks competition; a sole provider (Telmex) accounts for more than 70 percent of the market. Mexican consumers overpay by an amount equal to Mexican government gasoline subsidies, Flores-Roux said. Moreover, mobile phone penetration is uneven among income groups, with the gap between the rich and the poor steadily widening. Mexico's mobile system trails every Latin American country except Cuba and Bolivia.

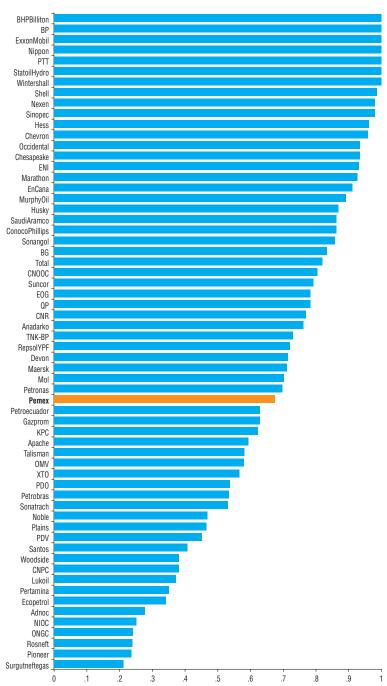
Inadequate regulation and enforcement are behind Mexico's monopolistic telecommunications sector. To improve competition, Flores-Roux said, the government should eliminate regulatory agencies' overlapping functions. Independent regulators must be able to fine firms and set prices only when needed, and government officials should be unable to interfere in company operations. Foreign direct investment in the sector should be allowed without restrictions, he said.

Trade Liberalization's Range

Raymond Robertson, a professor at Macalester College, argued that Mexico has fully embraced trade liberalization. His paper, "How to Tap Progress: The Role of Trade Openness," noted major milestones that include joining the General Agreement on Tariffs and Trade in 1986, the North American Free Trade Agreement (NAFTA) in 1994 and the World Trade Organization (WTO) in 1996. As Mexico grew increasingly open, trade diversity increased and the share of U.S.-related trade decreased. Mexico not only lowered tariffs, but also decreased its reliance on temporary trade barriers such as antidumping duties. Since 2009, Mexico has imposed temporary barriers when they have been justifiable (against the U.S.) while dismantling discriminatory ones (against China), Robertson found.

Pemex Ranks 37th in Revenue Efficiency

Char



Data envelopment analysis revenue-efficiency score*

* Data envelopment analysis (DEA) uses a sample of firms to define a "frontier" of maximum outputs that can be obtained by combining the different inputs. Firms that determine the frontier of maximum outputs are assigned a DEA score of 1. All other firms are then given a score between zero and 1 that represents their distance from the frontier. SOURCE: "The Revenue Efficiency of Pemex: A Comparative Approach," by Peter R. Hartley and Kenneth B. Medlock III, James A. Baker III Institute for Public Policy and Mexican Studies Programme at Nuffield College, Oxford University, April 29, 2011.

Mexico's recent trade policy cannot be blamed for its lackluster economic performance, Robertson said. Mexico has been "doing everything right" when it comes to trade and has paid a price when facing competition from low-wage Mexico's challenges are continued diversification of trading and production partners and development of policies that encourage production of highervalue-added goods. countries such as China; certain sectors simply could not compete. Apparel exports, which boomed after NAFTA, plummeted between 2000 and 2012 as China, Vietnam and Indonesia became major U.S. suppliers.¹⁵

Mexico's outlook depends on its future role as part of a North American production unit, he said. Since NAFTA, Mexican and U.S. production workers have become complements. But U.S. manufacturing employment is in longrun decline. Mexico's challenges are continued diversification of trading and production partners and development of policies that encourage production of higher-value-added goods.

Daniel Chiquiar, director of economic measurement at Banco de México, analyzed the labor market consequences of Mexico's trade liberalization with the U.S. since NAFTA in 1994 and with China's WTO entry in 2001 in his presentation "Labor Market Consequences of Trade Liberalization and Competition in Foreign Markets: The Case of Mexico." Mexico specialized in low-skilled, labor-intensive processes under NAFTA. Wages rose for workers at maquiladora plants, whose output reflected NAFTA-motivated production-sharing arrangements between Mexico and the U.S.

Unfortunately for Mexico, the products in which it and China specialized overlapped significantly. An increase in Chinese exports after 2001 negatively affected Mexico's U.S. market share. Chiquiar found that NAFTA positively impacted Mexico's labor market indicators (reducing unemployment and raising wages), while increased Chinese competition was a net negative for labor markets. Border cities such as Ciudad Juárez, Matamoros and Tijuana were most sensitive to NAFTA and to China's WTO entry.

Crime and Violence

Samuel Gonzalez Ruiz, a professor at Universidad Nacional Autónoma de México, argued in his presentation, "Public Safety in Mexico and Strengthening the Rule of Law," that Mexico's drug-related violence is rooted in its political system. While there has been "alternation" between political parties with the end of Partido Revolucionario Institucional (PRI) one-party rule in 2000, a true political transition has not taken place, he said. Lack of consensus has stalled passage of important reforms.

Criminality is a function of poor governance in three ways, he said. First, taxes make up only 9.5 percent of GDP, but business costs include the price of extortion payments to criminal organizations in the absence of consistent law enforcement. Second, Pemex revenues heavily finance the government, which creates regional imbalances because poor, oil-rich states subsidize wealthy industrial states in the north. Third, social programs are sometimes used in political campaigns to buy votes.

Surprisingly, perhaps, crime in Mexico is positively correlated with increased law enforcement spending, Gonzalez Ruiz said. Some of it reflects corruption; after police, prosecutors and judges are trained to fight and prosecute crime, many accept offers to work for or abet the drug gangs.

Liliana Meza González, a professor at Universidad Iberoamericana, asked whether violence and insecurity in Mexico have become factors driving emigration to the U.S. during her presentation, "Violence and International Migration in Mexico." Employment opportunities and family reunification have traditionally motivated migrants. Migration has decreased since 2007 due largely to the recession and depressed construction industry in the U.S., she said. Nevertheless, the number of people fleeing Mexico for security reasons has increased, particularly from northern border states where drug-related violence is concentrated.

People may flee the violence or hunker down, reluctant to leave the relative safety of their homes. After reviewing existing research, Meza González found what appears to be a threshold effect of violence on migration. Low levels of violence reduce migration; high levels increase it.

Violence has depressed migration for the country as a whole, except in the northern border states, where violence is positively correlated to emigration, Meza González said. Violence also appears to increase remittances home and reduce circular migration—rather than return home, migrants extend their stays abroad. Meza González also found that migrants motivated by personal safety concerns—kidnapping and extortion, for example—are typically drawn from higher education or income levels. Receiving communities in the U.S. stand to benefit from this stream of migrants—a significant human capital loss for Mexico.

After the Conference

Since last November's conference, President Peña has put Mexico squarely on the path of change. With the support of the major political parties, he has passed significant labor, education and telecommunications reforms. Banking and judicial measures are progressing. These positive turns have surprised many Mexicans, including several experts who spoke at the Dallas Fed conference.

In response to the question "Is the return of the PRI a return to the autocratic governments of the past?" former U.S. Ambassador to Mexico and keynote speaker Tony Garza said: "There is no way to return to the past in a new Mexico." The growth of the middle class, the modernization of the Mexican media and the rise of independent institutions will act to hold the political class accountable, he said.

"But isn't there a risk to doing business in Mexico?" he was then asked. Garza reflected on the shortcomings of other emerging-market nations—Brazil's relatively closed economy, corruption in Russia, for example—and noted how far Mexico has come. "There is a greater risk," he said, "to not doing business in Mexico."

Cañas is a business economist and Orrenius is an assistant vice president and senior economist in the Research Department at the Federal Reserve Bank of Dallas. Coronado is assistant vice president in charge of the El Paso Branch.

Notes

¹ Conference presentations may be viewed at www. dallasfed.org/research/events/2012/12mexico.cfm.

(Continued on back page)

A Mexican Central Banker's View of How to Tap Progress



Banco de México Deputy Governor Manuel Sánchez noted Mexico's disappointing long-term economic performance during the conference's opening address. The country has significantly progressed based on several indicators of human development, yet its longterm per capita income growth has been less impressive, he said.

Sánchez, an economist by training who came to the central bank in May 2009 after working in private equity, outlined his observations about Mexico's challenges:

On Mexico's transformative economic history:

"In the last 100 years, the country transformed itself primarily from an agrarian to an urban, service-oriented economy while undergoing an extensive industrialization process."

Regarding Mexico's average annual growth in real per capita gross domestic product (GDP) of 2 percent from 1950 to 2010:

"It is similar to that registered during the same period by some mature economies, such as the United States. Since Mexico is a developing country, presumably exhibiting a wider set of basic unexploited investment opportunities, output growth should have been higher....

"Furthermore, Mexico's economic evolution compares unfavorably with leading emerging economies, which five decades ago were either below or at its own level of income. For instance, while in 1960 Mexico had roughly the same per capita GDP as Singapore and more than double that of South Korea, now, some 50 years later, this indicator for Mexico is only one-fifth that of Singapore and less than one-half that of South Korea."

Why labor productivity declined from 1980 to 2005:

"Aggregate labor productivity fell because, relative to total labor in the economy, production dropped in agriculture and nonmanufacturing more than it grew in manufacturing and services. . . . [Meanwhile,] sectoral labor productivity increased only in the least- and in the most-productive sectors: agriculture, mainly because of labor emigration, and manufacturing.

The impact of informality on the labor productivity decline:

"A large part of both construction and services exhibits a high degree of informality. It is well-known that informality is linked to small-scale production, low investment in new technologies and poor incentives for human capital accumulation [increasing worker skills]."

Importance of credible economic measurement and policy evaluation:

"Structural reforms should . . . be focused on removing the root causes of impediments. A major task is one of measurement, as shown by the fact that statistical studies quantifying the effects of previous structural changes are relatively scarce."

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² He also noted the adverse growth effects of widespread crime and violence in recent years.

³ See "Why Have Economic Reforms in Mexico Not Generated Growth?" by Timothy J. Kehoe and Kim J. Ruhl, Federal Reserve Bank of Minneapolis Research Department Staff Report no. 453, November 2010.

⁴ See "Why Isn't Mexico Rich?" by Gordon H. Hanson, *Journal of Economic Literature*, vol. 48, no. 4, 2010, pp. 987–1,004.

⁵ For more information about the democracy score, visit the Polity IV Project at www.systemicpeace.org/polity/ polity4.htm.

⁶ Total factor productivity (TFP) accounts for changes in total output due to technological progress involving the efficiency of such inputs as labor, natural resources and capital. The growth rate of TFP is the amount by which output would increase as a result of improved methods of production.

⁷ Registered in Instituto Mexicano del Seguro Social.

⁸ See "The End of Informality in Mexico? Fiscal Reform for Universal Social Insurance," by Arturo Anton, Fausto Hernandez and Santiago Levy, Interamerican Development Bank, 2012.

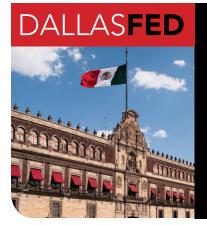
⁹ For an extensive discussion of the results, see "Policies to Promote Growth and Economic Efficiency in Mexico," by Javier Arias, Oliver Azuara, Pedro Bernal, James Heckman and Cajeme Villarreal, Munich Personal RePEc Archive Paper no. 20414, University Library of Munich, Germany. ¹⁰ Azuara agreed with Haber that the key to ending informality is to create incentives for state and local politicians to tax firms by letting them keep some of the revenue for local provision of public goods and allowing them to run for reelection.

¹¹ See "Informal Self-Employment in Developing Countries: Entrepreneurship or Survivalist Strategy? Some Implications for Public Policy," *Analyses of Social Issues and Public Policy*, vol. 9, no. 1, 2009, pp. 135–56.
¹² For more details, see "Scenarios for Oil Supply, Dernand and Net Exports for Mexico," by Kenneth B. Medlock III and Ronald Soligo, in the study "The Future of Oil in Mexico," James A. Baker III Institute for Public Policy, Rice University, and Mexican Studies Programme at Nuffield College, Oxford University, April 29, 2011.

¹³ Pemex revenue makes up one-third of federal government revenue.

¹⁴ OECD *Review of Telecommunication Policy and Regulation in Mexico*, Organization for Economic Cooperation and Development, Paris: OECD Publishing, 2012.

¹⁵ See *Sewing Success? Employment, Wages, and Poverty Following the End of the Multi-Fibre Arrangement,*" Gladys Lopez-Acevedo and Raymond Robertson, ed., Washington, D.C.: World Bank, 2012.



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