



© 2015 The International Institute for Sustainable Development Published by the International Institute for Sustainable Development.

International Institute for Sustainable Development

The International Institute for Sustainable Development (IISD) contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change and energy, and management of natural and social capital, as well as the enabling role of communication technologies in these areas. We report on international negotiations and disseminate knowledge gained through collaborative projects, resulting in more rigorous research, capacity building in developing countries, better networks spanning the North and the South, and better global connections among researchers, practitioners, citizens and policy-makers.

IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the International Development Research Centre (IDRC), from the Danish Ministry of Foreign Affairs and from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

Head Office

161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba, Canada R3B 0Y4 Tel: +1 (204) 958-7700 | Fax: +1 (204) 958-7710 | Website: www.iisd.org

Geneva Office

International Environment House 2, 9 chemin de Balexert, 1219 Châtelaine, Geneva, Switzerland Tel: +41 22 917-8373 | Fax: +41 22 917-8054 | Website: www.iisd.org

Leveraging Public Procurement to Encourage Economic Growth and Access to Finance for Small and Medium-Sized Enterprises (SMEs)

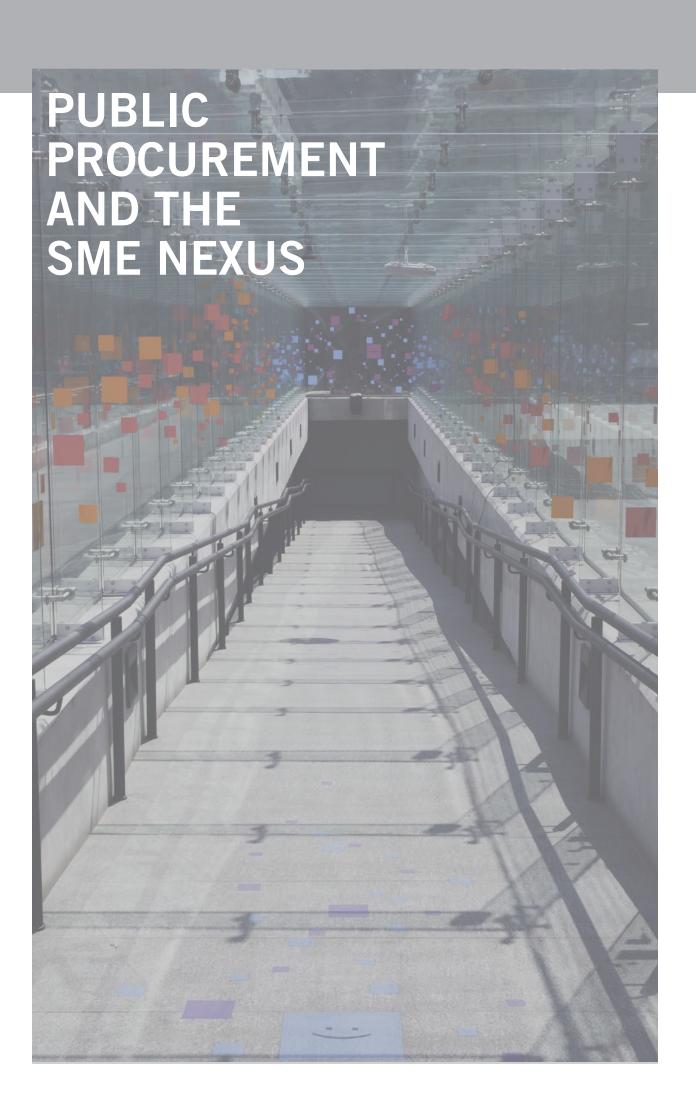
Eight Big Ideas From Mexico

September 2014

Mariana Silva George Scott

Table of Contents

Public Procurement and the SME Nexus	1
The Case for Sustainable Public Procurement in Mexico	3
Mexican Policy for a Framework to Promote SME Participation in Public Procurement	t4
SECTION 1: Maximizing Provisions for SMEs in the Context of Mexico's Open Economy . BIG IDEA 1: Smarter Use of the Free Trade Agreements—Provisions for Mexican SM	
SECTION 2: Providing Transparency and Dedicated Access to SMEs for Public Tender	9
BIG IDEA 2: Providing Dedicated Access to SMEs Through Government Fairs	10
BIG IDEA 3: Public E-Procurement Platform Compranet 5.0	11
SECTION 3: Access to Finance for SMEs: The Role of Public Procurement	12
BIG IDEA 4: Credit Enhancement to Crowd in Commercial Banks	13
BIG IDEA 5: Achieving Lower Interest Rates for SME Loans Through The Auctioning Of Guarantees	14
BIG IDEA 6: Using Public Procurement Contracts as Collateral for Commercial Loans	15
BIG IDEA 7: Financing Innovation: Providing Seed Capital for Research and Certification	16
BIG IDEA 8: Preferential Purchasing Programs with State-Owned Enterprises and State Governments	17
Conclusion	19
References	22



Public Procurement and the SME Nexus

A decade's implementation of sound economic policy has created a Latin America that is more equitable, more stable, and experiencing a sustained period of economic growth. Macroeconomic and financial stability, built on a foundation of fiscal discipline and strong financial institutions in Latin America, have proved to be resilient during the recent global crisis when many other parts of the world were suffering the adverse effects. Concurrently, rates of inflation have been maintained in single figures and are expected to remain so for the foreseeable future (Tuluy, 2012).

However, in spite of a period of growth spanning more than 10 years, GDP per capita in Latin America has been gradually falling behind that of high-income countries in other continents and similar benchmarks for decades (Daude, 2010). The region's mediocre growth performance is seen as one of the main reasons why levels of poverty reduction, and living standards more generally, still remain well below those observed in peer countries. If Latin America is to achieve convergence with industrial countries, growth needs to be significantly higher than the current figure of 4 per cent per annum (Corporación Andina de Fomento [CAF], 2013a).

In Latin America, small and medium-sized enterprises (SMEs) account for 99 per cent of businesses while employing 67 per cent of the work force, representing the overwhelming majority of private enterprises. However, their relative contribution to overall productivity is low; whereas large firms in Organisation for Economic Co-operation and Development (OECD) countries on average achieve levels of productivity 2.4 times greater than those of SMEs, in Latin America this multiple is a factor of 6 (OECD, 2010). Policies targeted at promoting the development of SMEs are therefore integral to achieving the region's growth potential.

SMEs and entrepreneurs play a central role in the way in which production is organized in the economy, being responsible for bringing to market new production and innovation, being more willing to accept and manage the risks than larger firms, promoting competition and market dynamism by bringing new products and processes, and inspiring and fostering creativity which plays an important role in aggregate productivity (CAF, 2013b).

However, while smaller firms play a role in accepting risk and bringing new innovations to market, larger firms reflect greater complexity in their size and internal coordination, resulting in greater productivity and a stronger ability to compete in international markets. In Mexico, while SMEs make up 99.8 per cent of the country's 4.15 million businesses, they only generate 54 per cent of GDP (Secretary of the Economy, 2014). In the decade between 1999 and 2009, labour productivity rose by 5.8 per cent per year in large firms with more than 500 employees. By contrast, during the same period in small firms with 10 or fewer employees, labour productivity declined at an annual rate of 6.5 per cent (Bolio, et al., 2014).

Economic dualism is not a new phenomenon, but the issue that seems to be emerging in Mexico is that the low-productivity segment of the economy does not appear to be shrinking. Not only do small, informal firms lack the productivity of larger firms, but typically the former require lower skills and are less able to provide training to their employees, the implication being that skills essential for work in the formal sector are lost. According to research carried out by CAF, only 25 per cent of microentrepreneurs are similar in terms of characteristics (education, motivations, and entrepreneurial skills) to more dynamic entrepreneurs that employ at least five workers. The remaining 75 per cent is in the "subsistence category," implying that they engage in their entrepreneurial activity not out of choice but due to unemployment and lack of skills necessary to be competitive in the formal economy.

The informal segment of the economy is typically not well served by the government. For example, they have no access to global markets, limited access to finance, and are populated by low-skilled

workers and managers. In order to decrease the gap between the productive and unproductive sections of the economy, it is important to increase the opportunities available to successful entrepreneurs and SMEs, through policies designed to help them develop, grow and increase their ability to compete in the formal economy (Rodrik, 2014).

To achieve higher levels of productivity, Mexico needs to shift to an economy composed of larger, more productive companies that are able to compete both domestically and internationally. In order to do so, it is necessary to first establish the right policy and economic conditions that can provide the opportunities to help successful SMEs develop and grow (Chen, 2013).

The Case for Sustainable Public Procurement in Mexico

Well-managed public procurement can account for a significant portion of the GDP for a given country. In the Netherlands, government public procurement contributes over 20 per cent to GDP, thus demonstrating the huge potential for public procurement as a potent tool for driving domestic economic growth.

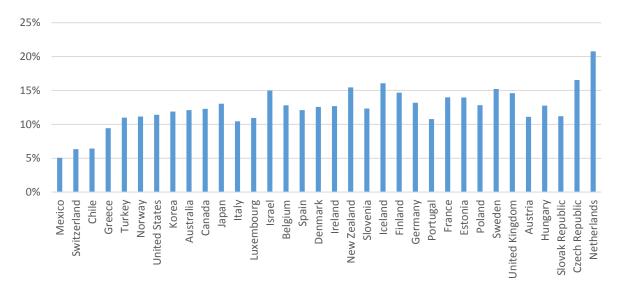


FIGURE 1. GOVERNMENT PROCUREMENT AS A PERCENTAGE OF GDP FOR SELECTED OECD COUNTRIES

Source: Perera, Chowdhury & Goswamil (2007).

At its most basic level, sustainable public procurement aims to ensure that government spending benefits a country both environmentally and socially. By ensuring SMEs are included in the government supply chain, public procurement has the potential to achieve outstanding economic and social benefits—including the creation of skilled jobs, increased domestic tax revenue, and more robust domestic economic growth. Well-designed public procurement policies also have the potential to catalyze technical development, increasing trade margins and overall productivity.

Often, however, there is the misconception that public procurement relates only to large-scale infrastructure projects, whereas in reality a large portion of a governments' spending includes products and services such as office supplies, vehicles, software, office electronics, and catering. Table 1 shows the range of areas of frequent government spending. Given the volume and range of products and services included in government expenditure and the valuable opportunity this represents for smaller-scale enterprises, it is important not to underestimate the need to evaluate where, and in whom, governments are investing their purchasing power.

TABLE 1. AREAS OF FREOUENT GOVERNMENT SPENDING

Products	Services	Works
Air conditioning and electronic equipment	Management consultancy services	Buildings, including housing, offices, and public amenities
Office IT	Software and electronics	Roads
Vehicles	Servers and data centres	Airports
Outdoor lighting	Couriers and postal	Railways
Paper	Fleet and vehicles	Hospitals
Office supplies	Waste handling	Schools
Fuel	Catering: food and beverage	Correction facilities
Furniture		Waste treatment plants
Apparel		Electricity infrastructure

Source: IISD

In Mexico, the world's 15th largest economy by GDP (World Bank, n.d.), SMEs form the backbone of the national economy. As noted earlier, SMEs represent 99.8 per cent of Mexico's 4.15 million businesses, yet only contribute 54 per cent of the total GDP while providing 72 per cent of employment (Secretary of Economy, 2014). Concurrently, government procurement makes up a substantial portion of the total financial expenditure in economic and market terms. According to the Ministry of Public Administration (SFP), the total amount of procurement spending by the federal government in 2008 (including state and local governments using federal resources) was 663.971 billion pesos (about US\$53.175 billion) and rose to 970.314 billion pesos (about US\$78.498 billion) in 2009, constituting around 18 per cent of Mexico's GDP (Marshall, 2004).

Channelling public spending into domestic sectors will not only help the government fulfill its duty to increase the well-being of Mexico's citizen, but investment in SMEs will also help foster innovation through risk-sharing practices. Generally speaking, the public sector is not innovative, and governments often miss opportunities to create value in their fiscal spending when needs are not articulated to the market (Marshall, 2004). Innovation, or the successful exploitation of new ideas, could serve Mexico well by driving sustained economic development and thus creating a shift from an economy based on the production of low value-added products and services into an economy based on high value-added production. In addition, public tenders from the public sector can be designed in a way that will promote innovation and technological development. Furthermore, sustainable public procurement easily aligns with President Peña Nieto's pledge to increase public spending during his administration as part of the stimulus to complement recent fiscal reform (Ramos, 2013). It is the strong belief of the International Institute for Sustainable Development (IISD) that if such a stimulus package could reach the main subsector of SMEs, it will produce positive social and economic multipliers for the entire Mexican economy.

Mexican Policy for a Framework to Promote SME Participation in Public Procurement

In recent years, through the establishment of favourable policies for the development of SMEs, Mexico has increasingly focused on fostering entrepreneurship and SME empowerment, not least by increasing their participation in public procurement. The 2009 Law for Development of Competitiveness of Micro, Small and Medium Enterprises set out to address the structural changes necessary to ensure a minimum of 35 per cent of the total value of goods, services, and public works procured by federal entities and districts would be contracted by SMEs.

In addition, the *National Acquisitions, Leases and Public Sector Services Act* includes several provisions specifically for tendering with SMEs:

- Article 8 requires national departments and agencies to design and implement programs facilitating procurement for SMEs in all areas of frequent spending.
- Article 8 goes on to establish preferences for SMEs in situations where several bidders meet tender requirements and achieve the same tender scores.
- Article 14 of the act suggests that additional award criteria may be awarded to SMEs that produce "goods with technological innovation."

Furthermore, Mexico's Five-Year National Plan defines SME economic growth as a priority in both its government mandate and its 4.8.3 Strategy, setting the target of more efficient public spending in order to strengthen their internal market (Gobierno de la República, 2013).

Finally, in early 2013 the Mexican Government created the *Instituto Nacional del Emprendedor* (National Entrepreneur Institute, or INADEM), an administrative body within the Ministry of Economy with the specific remit to develop a stronger entrepreneurial ecosystem (INADEM, 2014). Through the launch, the government underlined the country's commitment to accelerating innovation and improving Mexico's competitiveness.

Although an impressive foundation has been laid out, as shown in Table 2 participation of SMEs in public tenders remains considerably lower in Mexico (15 per cent) than in other industrialized countries such as Brazil (30 per cent), Italy (50 per cent), and Ireland (65 per cent).

TABLE 2. SHARE OF SME PARTICIPATION IN PUBLIC PROCUREMENT BY COUNTRY

Country	Percentage share of SMEs' participation in public procurement	
Slovenia	78%	
Hungary	68%	
Ireland	65%	
Italy	50%	
Austria	48%	
Germany	37%	
France	35%	
Spain	35%	
Chile	50%	
Brazil	30%	
Mexico	<15%	

Source: Belaustegui (2011).

While it is clear that many of the policy provisions designed to promote SME participation in public tenders are poorly implemented, it is important to point out that SMEs also face a number of additional challenges that prevent them from responding to public tenders. By their very nature, SMEs lack the resources and management expertise to plan, draft, and complete tender applications. SMEs also often have a limited commercial history, which makes them unattractive and appear risky to commercial lenders. In turn, commercial lenders are less inclined to lend to SMEs due to the high transaction costs associated with each loan. As a result, SMEs often have limited access to the credit and working capital necessary to produce the large volumes required in government tenders.

Addressing these factors is vital to increasing the proportion of procurement contracts awarded to SMEs. SMEs need both the production capacity to generate the volumes of goods and services that government entities are tendering, as well as access to the financing and adequate working capital necessary to deliver these public sector requests. For this to occur, information and transparency must form a critical part of the process.

In recognition of this, in April 2009 the Mexican Federal Congress approved the modifications to the law on the Acquisition of Goods, Leasing's and Rendering of Services for the Public Sector and the Public Works and Related Services law, which regulate the basic principles of government procurement established in Article 134 of the Mexican constitution. These amendments are intended to streamline public procurement procedures to achieve greater participation of SMEs in public procurement.

Among the modifications passed, the following can be highlighted:

Measures to Increase Transparency in the Bidding Process

- All invitations to bid have to be published in an electronic format through the Mexican e-procurement system CompraNet, and any person can download the instructions for free.
- Information concerning registered suppliers, along with their products, services, and business history, is required to be posted both on CompraNet and the website of procuring entities.

Indications of Non-Compliance

- Prior to the modifications, contracting entities could decide and interpret which mistakes would cause, and would not cause, disqualification after the opening of the bids.
- All bidders must know who was successful and why, as well as why the other bidders were not successful.
- Details of the bidding process must be included in invitations to bid, to provide bidders with more legal certainty of their rights during the procurement process.

Settling Disputes and Making Payments

- A reduction in the maximum period of time for making a payment to providers, from 45 to 20 days.
- A reduction in the period of time for resolving disputes.

Using the example set by Mexico, this report seeks to highlight the "Eight Big Ideas" that have been implemented in Mexico to promote participation of SMEs in the government public procurement process as a means to foster development by a smarter use of regulations and by stimulating access to finance for SMEs, as well as outlining the next steps necessary to realize the full benefits of measures implemented to date.

SECTION 1: MAXIMIZING PROVISIONS FOR SMES IN THE CONTEXT OF MEXICO'S OPEN ECONOMY

Since the implementation of the 2009 Law for Development of Competitiveness of Micro, Small and Medium Enterprises, the 35 per cent set-aside provision has yet to be fully achieved. In fact, since the set-aside law's creation, the surface has barely been scratched (D. Lamb, personal communication, January 7, 2014). According to Mexican public procurers, in conversation with the IISD, of the many reasons that could apply, one of the key factors affecting the underutilization of the set-aside provision is the very nature of Mexico's open economy.

Approximately 90 per cent of Mexico's international trade falls within the domain of the free trade agreements (World Trade Organization, 2011). Mexico is one of the economies most open to international trade and has now established 12 individual free trade agreements, allowing Mexico preferential access to 44 countries and more than a billion potential customers (Ernst & Young, 2013). Inherent to Mexico's free trade agreements are restrictions on certain public procurements and preferential framework agreements, particularly those targeted toward SMEs.

BIG IDEA 1: Smarter use of the Free Trade Agreements— Provisions for Mexican SMEs

To effectively foster SMEs within the present public procurement framework, it is essential that public procurers utilize the existing negotiated free trade agreement provisions to their full extent. As a result of the many treaties that have now been signed by Mexico, a specific framework agreement to foster national SMEs is no longer possible. Therefore, the only way for Mexico to prioritize its national sector in public procurement is to work within the legal framework present.

Fortunately, many free trade agreements contain legal set-aside reserves that will allow for a national prioritization of SMEs in public procurement. For example, the EU-Mexico Free Trade Agreement contains wording to gradually phase out national treatment and non-discrimination over a period of 10 years, except for public utilities and transport (Francois, McQueen, & Wignaraja, 2005), which represents a wasted window of opportunity for the Mexican government to promote domestic promotion.

These provisions are time dependent, valid for only a number of years, with caps that decrease annually. Unfortunately this utility has been greatly underused. Between the years 2007 and 2012, the reserves were not used beyond 77.2 per cent of their full capacity, and the average use over the five-year period was only another 52 per cent (D. Lamb, personal communication, January 7, 2014). In order to effectively foster Mexico's local manufacturing within the present framework, it is essential that public procurers utilize the negotiated free trade agreement provisions to their full extent.

TABLE 3. EXAMPLES OF SOME TREATIES AND THEIR PROVISIONS ON PUBLIC PROCURE-MENT OFFSETS

Treaty	Provision of Offsets
North American free trade agreement	Article 1006
Free trade agreement between Mexico and the European Community	Articles 1002 and 1007-1016
Free trade agreement between Mexico and Bolivia	Article 15-05
Free trade agreement between Mexico and Nicaragua	Article 10-02
Free trade agreement between Mexico and Israel	Article 3-04

Source: IISD

It is clear that more needs to be done to fully make use of the reserves made available in free trade contracts. Recognizing this, in July 2013 Mexico's public procurement unit began a campaign aiming to maximize each individual provision's potential. In order to achieve this, the unit is providing information sessions to all national entities and has a goal of achieving an average use of these fair trade agreement reserves of 90 per cent from 2014 to 2018. The impact of this campaign is yet to be seen.

SECTION 2: PROVIDING TRANSPARENCY AND DEDICATED ACCESS TO SMEs FOR PUBLIC TENDERS

The framework regulating government procurement in Mexico is complex, consisting of rules in various hierarchies: laws, regulations, operating manuals, and purchase contracts. High-level standards outline rigid limits, both for governmental institutions and all individuals with whom contracts are executed. The *Global Competitiveness Report 2012-2013* shows that out of the 144 counties evaluated, Mexico ranks 97th with a rating of 3 points out of a possible 7 in relation to the burden of government regulation (Schwab, 2013). For SMEs that lack resources and specific knowledge to ensure compliance, this regulatory burden can easily prohibit participation in public procurement.

To increase the share of procurement contracts awarded to SMEs, this burden must be reduced along with the requirements to enter a bidding process must be made clear and accessible to all potential participants.

In response to this need for increased transparency and awareness regarding tender procedures, in 2009 the Mexican government made provisions for two key tools, the Public Procurement Fair and CompraNet 5.0, Mexico's public e-procurement platform.

BIG IDEA 2: Providing Dedicated Access to SMES through Government Fairs

The Public Procurement Fair, organized by INADEM, was set up in 2009 to create an encouraging and comprehensive environment for micro, small, and medium-sized enterprises seeking to become government providers. Visitors to the fair receive guidance and training on becoming government suppliers, contributing to the development of their business. The fair is run with the participation of a number of large procurers, including The Ministry of Communications and Transport, Petróleos Mexicanos (PEMEX), CRE, the Mexican Institute of Social Security, Liconsa, a state joint venture with the social development sector (DICONSA), and the Institute for Social Security and Services for State Workers (ISSSTE), as well as representatives from all 91 federal government agencies. Each is present to answer questions and clarify public purchase processes, which differ greatly from private sector sales in terms of rules, procedures, and regulations. In addition, conferences and workshops given by federal officials are offered so that Mexican entrepreneurs can further familiarize themselves on the procedures to sell to the government and what tools are at their disposal.

The exhibition is not only a good learning occasion for SMEs, but is also a business forum for suppliers to meet officials to discuss needs, wants, and solutions to existing problems. These potential government purchases are advertised in further detail on CompraNet. SMEs that are registered as users on CompraNet are able to access these details on all products and services the Mexican government intends to buy or has recently purchased.

The Government does not have to spend more to stimulate the economy, it has to spend better. Buying from SMEs is one way to do this: when acquisitions are democratized, a multiplier effect is generated.

President Peña Nieto at the Public Procurement Expo opening in 2013

BIG IDEA 3: Public E-Procurement Platform Compranet 5.0

CompraNet is an online government procurement system originally introduced in 1996 by the General Comptroller (OECD, 2009). CompraNet 5.0 was created to increase efficiency, transparency, cost-effectiveness, and reduce transaction costs for bidders and public buyers in public tendering.

This online platform is accessible free of charge to the general public and anyone seeking information on what tenders are currently being held. Available searchable information includes tender procedures, requests for proposals, history of awards, notes, and contracts. Also available is information on providers and tendering authorities, the annual procurement program, complaints filed with procuring entity's Internal Control Units, electronic tenders and applicable laws and regulations. Additional information can be found on the website of each tendering authority.

CompraNet serves not only as a database of open public tenders, but also as an electronic transaction tool with which to carry out procurement procedures. Every government entity and state-owned enterprise is obliged to make information about allocated contracts publicly available via CompraNet. Mexican suppliers can then access this information and submit bids electronically. The CompraNet 5.0 system has effectively increased transparency and fairness in the bidding process and in doing so has opened up the market to competition, providing a big step in encouraging smaller organizations to partake in the process.



BIG IDEA 4: Credit Enhancement to Crowd in Commercial Banks

Recognizing the risks inherent to Mexico's SMEs, the Mexican development bank, NAFIN¹ has launched credit enhancement and factoring programs that help small businesses cope with all their working capital needs.

In order to address the severe credit restrictions facing SMEs, in 2003 NAFIN, in collaboration with the Secretary of Economy, established the National Credit Guarantee System (Sistema Nacional de Garantia) dedicated to increasing commercial banks' net credit lending to SMEs. The system serves to substitute collateral with government guarantees, helping to facilitate SMEs' access to bank credit for such beneficial activities as expansion and modernisation of facilities, technological development projects, and environmental improvement.

This programme has been highly successful in lowering interest rates on loans to SMEs. NAFIN honours its guarantee if a loan-holder defaults on a loan. In addition, NAFIN's bank loan guarantee program has successfully reduced the amount for collateral required for such loans.

Beginning in 2005, NAFIN has made efforts to simplify, standardize, and automate its guarantee program. Through electronic transactions, more than 800,000 guarantees and five million transactions have been processed (La Asociación Latinoamericana de Instituciones Financieras para el Desarrollo, 2014). To further automate this system, NAFIN established a Guarantees Trust, an independently operated vehicle with its own easily operable assets. The main federal providers of the counter guarantees are the Ministry of Economy, Ministry of Finance, and public credit (SHCP) and state governments. Additionally, to ensure effective management of the counter guarantee resources provided by the federal government, NAFIN created a counter guarantee trust. The main federal providers of counter guarantees are the Ministry of Economy (SE), the Ministry of Finance, Public Credit (SHCP), and state governments.



FIGURE 2. NAFIN GUARANTEE PROGRAM OPERATIONS SCHEME

Source: La Asociación Latinoamericana de Instituciones Financieras para el Desarrollo (2014)

¹ Nacional Financiera, Sociedad Nacional de Crédito, Institución de Banca de Desarrollo (Nafinsa) was established in 1934 by the Mexican Government as a Development Banking Institution that operates in accordance with its Organic Law, the Law of Credit Institutions, the rules issued by the National Banking Securities, The Law of Banco de Mexico, and the General Law of Public Debt. The objectives of Nafinsa are to promote the overall development and modernization of the industrial sector with a regional approach, stimulate the development of financial markets, and act as financial agent of the Federal Government in negotiation, hiring, and administrating of loans from abroad.

BIG IDEA 5: Achieving Lower Interest Rates for SME Loans through the Auctioning of Guarantees

The credit guarantee scheme differs from schemes previously implemented in other countries. In traditional guarantee schemes, default risk is shared by the guaranteeing public institution, which assumes a large portion of the risk. The remaining portion of risk is absorbed by the financial institution, which accordingly charges an interest rate premium to the SME. One of the innovative features of the credit guarantee system in Mexico is the allocation of guarantee funds to commercial banks via public auctioning.

Through auction, financial institutions can bid for the right to obtain guarantees (OECD, 2011), bidding for a fixed sum of SME loan guarantees. Institutions with the highest credit/guarantee fund ratio (i.e., the volume of loans the government guarantees will leverage) and the lowest interest rate are selected (OECD, 2013).

The guarantees auctioning program is the first of its kind for use in a development bank. In allowing for open competition between financial intermediaries, the system results in better product allocation and better loan conditions for SMEs. High levels of transparency are a trademark of this innovative process, allowing the market to openly consult final resource rates and allocation online on CompraNet.

Between the years of 2005 and 2012, NAFIN's program guaranteed US\$8,308 million in loans benefitting 330,000 companies (Villegas, 2013). NAFIN's pioneering processes, such as online guarantees, have proved to be valuable insights into the development of SMEs in Mexico. Their more in-depth approach to market analysis prior to the auction process has allowed the expansion of several segments of NAFIN that are most capable of SME support.

BIG IDEA 6: Using Public Procurement Contracts as Collateral for Commercial Loans

Thus far, NAFIN has been successful in increasing access to finance as a means to enhance SME growth. However, there are further obstacles that SMEs must overcome to become government suppliers. Since government entities do not pay in advance for the products and services that they procure, the burden of working capital is placed on the supplier. For SMEs, this presents a huge barrier, and without adequate credit to finance the working capital to produce requested goods and services, it is practically impossible for an SME to become a government supplier.

In response, NAFIN has developed an online market for reverse factoring services to enable SME suppliers to use their accounts receivable from large creditworthy buyers to receive working capital financing. In traditional factoring, a supplier will sell their accounts receivable to a commercial bank, the factor, in exchange for immediate liquidity. However, in the absence of credit information it is challenging for the factor to adequately assess the credit risk of the supplier. In reverse factoring, the process is initiated by the buyer, usually a large creditworthy company, and therefore helps their SME suppliers finance their working capital by borrowing based on the creditworthiness of their buyer at a discount.

In order to facilitate reverse factoring services, since September 2001 NAFIN has provided an electronic platform, Cadenas Productivas (Productive Chains), which works by creating chains between large buyers and their suppliers. Large buyers registered with the Cadenas Productivas program provide NAFIN with a list of their suppliers, who are then invited to register services with that buyer. Once suppliers have delivered their goods or services to the buyer and issued an invoice, the buyer then initiates the process, choosing which invoices they will allow to be paid earlier by a factor. The platform also facilitates the participation of all commercial banks in the program (the factors), allowing them to compete for the supplier's receivables. The platform enables the supplier to assess this information and choose the best quotes, eliminating any potential information asymmetry in the deal. Once the factor is selected, the discounted amount is transferred to the supplier's bank account. The factor is paid directly by the buyer when the invoice is due.

The NAFIN factoring program has succeeded due to the important support offered by electronic security laws. For example, the *Law of Conservation of Electronic Documents*, passed in May 2000, provides data messages with the same legal validity as written documents. Further validity of electronic transactions was provided by the *Electronic Signature Law* in April 2003, which allows secure transactions to substitute electronic signatures for written signatures, ensuring sender verification by the receiver of a digital document (Klapper, 2004).

NAFIN was responsible for the development, production, and marketing costs related to the electronic platform. Although it operates the system and handles all the legal work, NAFIN requires all participating financial institutions to use its second-tier funding to provide credit through the system. This means NAFIN does not charge a fee for the factoring services, but rather covers its costs from fees paid by lenders for their services. As a result of this subsidy paid by NAFIN, factors charge only interest and no additional fees for their factoring service.

NAFIN's factoring program has proven highly successful. Since its inception, it has extended over US\$9 billion in financing and brokered more than 1.2 million transactions, 98 per cent by SMEs. Based on this success, NAFIN has entered into agreements with development banks in several other Latin American countries to implement similar programs, including Colombia, El Salvador, and Venezuela(Sinswat, & Subhanij, 2010).

According to information supplied to IISD by NAFIN, 101,828 government suppliers have benefited from this financing scheme, with an average of 10,000 daily, totalling US\$77 million. With 550 public and private companies affiliated with this program, the electronic billing system has proven to be a successful tool for financing working capital without collateral and lengthy bank loan evaluation processes.

BIG IDEA 7: Financing Innovation: Providing seed capital for research and certification

Technological innovation, often synonymous with greater added value in manufacture and production, requires high initial investment. As a result, many SMEs with successful products and high growth potential often find it difficult to expand their productive infrastructure due to cost restraints, such as lacking the capital or training to acquire licences and certification (Valenzuela, 2014). This in turn restricts development and innovation among smaller, more resource-constrained companies and provides an additional barrier to joining the government's supplier base.

To counter this, the Secretary of Economy has developed a program to share the initial-stage risks of innovation. Entrepreneur grants from the National Entrepreneur's Fund are awarded to SMEs depending on their project's ability to generate economic impacts that will strengthen the competitive position of their region or sector, with precedence granted to those committed to developing their domestic supply base.

The National Entrepreneur Fund provides grants that support a range of areas of activities. As shown in Table 4, each grant supports between 30 to 60 per cent of the total cost of a given activity. For example, in the case where a small company has determined the need to hire an external consultant to create an action plan for their marketing campaign or commercialization strategy, the National Entrepreneur Fund could finance up to 60 per cent of the total cost of the consultant's fee to the company.

TABLE 4. THE NATIONAL ENTREPRENEUR FUND - AREAS OF SUPPORT

/// // // // // // // // // // // // //		
Areas of support	Maximum percentage of support	
Training	50%	
Consulting	50%	
Certifications	60%	
Design and innovation	60%	
Transfer of technology	60%	
Pilot run (First production test)	30%	
Equipment	30%	
Productive infrastructure	30%	
Marketing (strategies)	50%	
Applications of Advanced Management (software)	50%	
Payment of trademark and patent registrations	50%	
Integration of management groups (specialized personnel who manage the project)	50%	

The IISD believes this is a first step to increasing the capacity and innovation of SMEs to enable them to join the government's supplier base. However, there are still improvements that can be made to fully realize the fund's potential.

Foremost, the fund is only 9,300 million pesos (about US\$690 million), which is vastly insufficient for the needs of Mexico's SMEs. Furthermore, grants are mostly allocated to larger, more established companies due to their longer operating history, limiting the impact the fund has in helping newer start-ups. Compounding these factors is the length and complexity of the administrative burden of the application process, which alone represents an additional barrier to the take-up from SMEs who are unable to spare the necessary human resources. Unlike larger enterprises, small businesses do not possess the ability to readily hire an employee whose sole purpose is administrative work and procedures.

Finally, if a company is successfully awarded an Entrepreneur Grant, at the conclusion of the project it is required to produce a final evaluation for each of the developed and incorporated companies in the value chain. This final evaluation is highly detailed and includes a report on productivity increases, a report on increases in sales, a report on the relative percentage increase in jobs, and a report on increases in total productivity. This requires companies to make public the amount of purchases that were made through incorporated national suppliers and provide a comparison of the cost of these purchases made abroad (Secretaria de Economia, 2014). This lengthy compliance process often provides the final discouragement preventing many companies from applying to this fund and the opportunity to participate in the expansion of Mexico's national supplier base.

BIG IDEA 8: Preferential Purchasing Programs with State-Owned Enterprises and State Governments

In 2008, five government entities accounted for almost 72 per cent of all federal procurement: PEMEX (45.6 per cent percent); Comisión Federal de Electricidad and Compañía de la Luz y Fuerza Centro, the state electricity monopolies (11.3 per cent); Instituto Mexicano del Seguro Social, the provider of health and social security services to private employees (6.6 per cent); the Ministry of Transportation and Communications (4.8 per cent); and Instituto de Seguridad y Servicios Sociales de Los Trabajadores del Estado, the provider of health and social security services to federal employees (3.6 per cent).

Of the top five procurers, PEMEX is the largest by a considerable margin. According to expert estimates for the years 2009–2012, PEMEX's domestic procurement was 41.5 per cent. This figure is still relatively low considering the importance of PEMEX to Mexico's public budgets. Over a third of federal government spending is funded with PEMEX oil revenue, with spending distributed between the federation and all state governments (Rodriguez, 2012). With such a high dependency on PEMEX in the Mexican fiscal budget, it is essential that PEMEX seek to increase its proportion of procurement from domestic suppliers.

To better understand the barriers limiting the participation of local suppliers in the procurement of goods and services for PEMEX, in 2009 the company conducted a survey of 4,025 domestic companies, including both current and potential suppliers (PEMEX, 2009). The survey identified four main barriers: (i) the acquisition process of PEMEX, (ii) access to finance, (iii) factors affecting suppliers' technological competitiveness, and (iv) public policy.

i) PEMEX's acquisitions process

Survey participants identified PEMEX's acquisition process itself as the greatest barrier to becoming a supplier. The procurement processes were generally perceived as complex, often involving excessive requirements, and unclear. Furthermore, the technical standards required of suppliers were seen as overly severe, which led to the wide-spread perception that selling or increasing sale volumes to PEMEX was complex and more expensive than for other companies.

ii) Access to finance for PEMEX suppliers

Access to finance was considered the next greatest barrier for potential suppliers. Foreign companies were seen as having favourable financing conditions in their respective countries that hampered the competitiveness of national suppliers. Access to working capital is a continuing obstacle for domestic suppliers, especially SMEs. This was a key impediment preventing the potential of domestic suppliers to become PEMEX suppliers. In addition, SMEs faced further restrictions in their access to financing instruments that are not relevant in larger businesses.

iii) Technological competitiveness of suppliers

The lack of technological innovation and qualified workers, as well as the resulting weak price/quality of competitiveness in international markets, was also an important barrier for suppliers.

There are no explicit agreements regarding collaboration between research centres and companies in Mexico. Therefore, companies in the oil industry are not incentivized to invest in research and development programs outside of their organization. Such a program would encourage innovation and domestic technological development by stimulating universities and businesses alike to conduct research on matters related to the oil industry.

iv) Public policy

The importance of public policy in promoting access to finance for working capital and asset acquisition should not be underestimated. Survey participants noted the lack of a comprehensive, long-term development program for national industry.

PEMEX was seen by survey participants as rarely including domestic content requirements in its tendering procedures despite treaties allowing such action within certain limits using thresholds and reserves in free trade agreements.

As a result of the feedback obtained from the survey, and following the 2013 Constitutional Energy Reform, PEMEX decided to take a more holistic approach in order to scale up the capacity of local suppliers to deliver better to the company.

PEMEX launched a regional development project in Tabasco, designed to tackle the barriers facing suppliers. This project is the first of its kind, as only a handful of state-owned companies procure from SMEs.

To streamline the procurement process and management of acquisitions, PEMEX created a single corporate procurement and supply management department (DCPA). The main objective of the DCPA was to increase purchases from domestic suppliers by 25 per cent over the next 10 years. To achieve this, PEMEX catalogued its projected demand for goods and services from 2013 to 2017. From there, items with a procurement process that can be shifted from foreign to local suppliers will be identified. Next, a list of SMEs with the potential to deliver the good or service will be created, and PEMEX will contact the SMEs to offer them a free consultation on their process and infrastructure capacity. Expert consultants will then advise the company on the areas needing to be scaled-up to become a successful government provider. Finally, a letter of assessment allowing SMEs to access bank loans to invest in mentioned assets will be provided.

To tackle the issues of insufficient financing to SMEs, the Secretary of Economy, NAFIN, the State Government of Tabasco, and PEMEX all signed an agreement in August 2013 to establish a supply chain finance program for SMEs supplying to PEMEX in Tabasco, enabling government suppliers to use their procurement contract as a guarantee to access working capital financing.

PEMEX's experience working with SMEs has given it an increased awareness of the challenges SMEs face in regards to public procurement contracts. Many domestic companies lacked installed or production capacity and/or the technical knowledge to manufacture products procured by PEMEX. PEMEX has therefore determined capacity building to be a priority and has launched training programs and funding to potential suppliers in order to move towards its goal of increasing national production. In line with this, the Secretary of Finance and Public Credit created the Trusts Pemex (FISO), Article 14 of the Law of Petróleos Mexicanos, which aims to promote the development of domestic suppliers and contractors within the state oil industry, with special attention being given to SMEs.

This congressional mandate, combined with the new margins granted to PEMEX in the 2013 Energy Reform, provides a unique opportunity to establish effective policies to increase domestic purchases with positive economic effects and externalities in both the short and long terms.

In the short term, and within the current legal framework, the national component of purchases can be increased with measures such as the elimination of bottlenecks, better administrative procedures, and maximizing reserve potential as previously discussed in regards to international trade agreements. Implementation of short-term measures to increase domestic suppliers of PEMEX represents an immediate stimulus to the economy, which could partially offset the fiscal fall in oil revenues due to the decline of international oil prices.

With a view to the long term, PEMEX's mandate seeks to design and implement a more comprehensive, industrial development policy for domestic suppliers. This will result in the creation of high-value-added industries based on the use of high-scale employment and quality management. The accumulation of knowledge and capital in industries supplying the oil sector will then increase the overall productivity of the Mexican economy.

CONCLUSION

Despite a decade of sustained economic growth, the Mexican economy is failing to converge with high-income countries and instead is gradually falling behind. Concurrently, Mexico has seen the emergence of a two-tier economy. In Mexico, 99.8 per cent of the country's 4.15 billion businesses are made up of SMEs yet they are responsible for only a meagre portion of Mexico's GDP. As a result, the productivity gains achieved by Mexico's larger enterprises have not led to any material growth in the economy.

Instead of proving dynamic and creative, three quarters of Mexico's SMEs have the characteristics of small, informal firms, which fall into the subsistence category. These informal enterprises lack both the productivity of larger, more organized companies and the business acumen of genuine entrepreneurs. More critically however, they also lack the structure or management to provide their employees with the training and skills that are essential for working in the formal sector. Without corrective measures, Mexico faces a vicious circle of decreasing productivity. Without a sufficient number of organized, formal firms able to absorb and train Mexico's workforce, more and more of Mexico's workers will fall into the low productivity, subsistence trap, finding themselves without the skills and experience essential for more productive work in the formal sector.

Aware of the ramifications of inaction, the Mexican government has since 2003 started introducing measures designed to redirect government spending toward its SMEs and establish the favourable conditions to catalyze their growth and development:

1) Utilizing free trade agreement set-aside provisions

Mexico's free trade agreements still provide set-aside provisions that allow for national prioritization of SMEs in public procurement. For example, both the EU-Mexico Free Trade Agreement and the North Atlantic Free Trade Agreement both carry provisions for offsets, which to date have been vastly underutilized in Mexico. To resolve this, Mexico's public procurement unit has recently begun to campaign to optimize the use of these offsets before they run out.

2) Increase SMEs access to public procurement through government procurement fairs

With limited resources available to them, SMEs are more sensitive to the regulatory burden inherent in government compliance, which can provide a substantial barrier preventing SMEs from becoming government suppliers.

Public procurement fairs were implemented by INDEM in 2009 to foster transparency in the procurement process. The fairs offer conferences and workshops to help SMEs familiarize themselves with the complex rules and procedures for public procurement, while also providing a forum to connect large governmental procurers with potential SME suppliers.

By providing guidance and support to SMEs, the fairs have helped simplify the complex procedures for government tenders and provided transparency to SMEs.

3) Public electronic procurement platform

To further promote transparency in the government procurement process, the Ministry for Public Administration introduced an electronic procurement platform, CompraNet. CompraNet 5.0 functions as a database of open public tenders, providing a range of information for suppliers. CompraNet also reduces transaction costs by facilitating the transaction between the supplier and purchasing entity, helping the ability of SMEs to compete in government procurement tenders.

4) Loan guarantee program to reduce the cost of debt for SMEs

In spite of constructive efforts to increase participation through transparency and information sharing, inadequate access to finance still prevented many SMEs from achieving the desired levels of output, quality and/or order completing time required to be competitive in government tenders. While many banks have a dedicated mandate to lend to SMEs, SMEs often lack of credit history and collateral, making them a high credit risk to lenders. In 2014 total bank loans extended to SMEs amounted to only US\$8.9 billion, only 15 per cent of total credit issued.

In acknowledgment of the problem NAFIN, working with the Secretary of Economy, has established the National Credit Guarantee System to lower SME borrowing costs for loans of specific beneficial activities by substituting collateral with government guarantees. However while the programme has been successful in lowering bowering costs for SMEs, there is more still to be done to increase the overall volume of credit supplied to them.

5) Auctioning of SME credit guarantees to achieve a lower cost of borrowing for SMEs

To reduce interest rates offered to SMEs NAFIN established an auctioning system. The system allows commercial banks to bid for portfolios of SMEs credit guarantees. Banks offering the highest degree of leverage on credit extended to guarantees and the lowest interest rates are selected. The guarantee program was able to ensure that loans are extended to SMEs at interest rates that are lower than would be charged on fully commercial loans. SMEs benefit from lower interest rates and commercial lenders, benefit from more secure lending to risky operations. In the long term the scheme is able to help SMEs to develop a credit history, thereby initiating a virtuous circle within the economy.

6) Reverse factoring program

To help SMEs overcome working capital shortfalls, NAFIN introduced a reverse factoring program. NAFIN's reverse factoring program differs from traditional factoring programs because it is the buyer, a large creditworthy government entity, not the supplier who initiates the transaction, therefore reducing the credit risk to the factor.

Since its inception, NAFIN's reverse factoring program has extended over US\$9 billion dollars in financing and brokered more than 1.2 million transactions, 98 per cent by SMEs. Based on this success, NAFIN has entered into agreements with a number of development banks across Latin America to implement similar programs.

7) Seed capital for research and innovation

The Mexican National Entrepreneur fund was established to help finance development and innovation in resource-constrained SMEs. The National Entrepreneur Fund supports a range of activities—including training, hiring of consultants, parent registration and pilot project development—by providing grants that finance up to 60 per cent of the given activity.

The fund's overall size is only US\$690 million, which is insufficient for the capital requirements of Mexico's SMEs and has severely reduced the fund's efficacy. In addition, the administrative burden of the lengthy application process and compliance procedure often provides a final barrier for SMEs seeking to benefit.

8) Preferential purchasing programs for state-owned enterprises and governments

In 2013, the state-owned oil company PEMEX—which accounts for 46 per cent of all federal procurement—stated an objective to increase procurement from domestic suppliers by 25 per cent over the next 10 years. As part of this commitment, PEMEX has pledged to identify the goods and services that can be shifted from foreign to local suppliers and provide free consultations with domestic SMEs to assess their production capacity, technical knowledge and provide guidance on how to scale up their production in order to become a PEMEX supplier.

It is PEMEX's long-term aim to design and implement a more comprehensive development policy for domestic suppliers and in doing so support the development of domestic industry and the Mexican economy as a whole.

In an increasingly interconnected world, with fewer boundaries to trade, domestic SME markets are left more exposed to competition from developed, international markets. For developing economies with large, undeveloped SME segments, public procurement can therefore provide a vital tool to catalyze domestic development. While there is still much still to be achieved in Mexico, the Eight Big Ideas highlighted here are providing important support for development and innovation of Mexican SME and in doing so will help to achieve positive social and economic multipliers for the Mexican economy as a whole.

References

Belaustegui, V. (2011, June). Las compras públicas sustentables en América Latina. Estado de avance y elementos clave para su desarrollo. The Inter-American Government Procurement Network (RICG).

Bolio, E., Remes, J., Lajous, T., Manyika, J., Ramirez, E. & Rossé, M. (2014). *A tale of two Mexicos: Growth and prosperity in a two-speed economy*. McKinsey & Company. Retrieved from http://www.mckinsey.com/insights/americas/a_tale_of_two_mexicos

Chen, W. C. (2013). The extensive and intensive margins of exports: The role of innovation. *World Economy*, *36*(5), 607-635.

Corporación Andina de Fomento (CAF). (2013a). CAF warns about lack of entrepreneurial dynamism in Latin America. CAF, viewed 18th May 2014, URL: http://www.caf.com/en/currently/news/2013/11/caf-warns-about-lack-of-entrepreneurial-dynamism-in-latin-america

CAF. (2013b). Emprendimientos en América Latina. Desde la subsistencia hacia la transformación productiva. RED. Retrieved from http://publicaciones.caf.com/media/33191/red_2013.pdf

Daude, C. (2010, February). *Innovation, productivity and economic development in Latin America and the Caribbean*. OECD Development Centre. Retrieved from http://www.oecd-ilibrary.org/docserver/download/5kmlcz254421.pdf?expires=1416508793&id=id&accname=guest&checksum=E2E4E3 6C7594A887D75FB91B37AD9E69

Ernst & Young (EY). (2013). The power of three—Together, governments, entrepreneurs and corporations can spur growth across the G20. The EY G20 Entrepreneurship Barometer 2013, EY. Retrieved from http://www.ey.com/GL/en/Services/Strategic-Growth-Markets/The-EY-G20-Entrepreneurship-Barometer-2013

Escamilla, V. (2012). Los ocho obstáculos de los créditos Pyme. CNN Expansion. Retrieved from http://www.cnnexpansion.com/emprendedores/2012/19/los-ocho-obstaculos-del-credito-pyme

Francois, J., McQueen, M., & Wignaraja, G. (2005). European Union—Developing country FTAs: Overview and analysis. *World Development*, 22(10), 1545–1565.

Gobierno de la República (2013). *Plan nacional de desarrollo 2013-2018*. Gobierno de la república. Retrieved from http://pnd.gob.mx/wp-content/uploads/2013/05/PND.pdf

Instituto Nacional Del Emprendedor (INADEM). (2014). ¿Qué es INADEM? Instituto Nacional Del Emprendedor, Mexico.

Klapper, L. (2004). The Role of "Reverse Factoring" in Supplier Financing of Small and Medium Sized Enterprises. The World Bank, Washington. Retrieved from http://siteresources.worldbank.org/DEC/Resources/SupplierFinancing_Klapper.pdf

La Asociación Latinoamericana de Instituciones Financieras para el Desarrollo. (2014). Financiamiento Sectorial Intermediarios Financieros. ALIDE. Retrieved from http://www.alide.org.pe

Marshall, G. (2004). The real drivers of change in public sector procurement. IT World Canada. Retrieved from http://www.itworldcanada.com/article/the-real-drivers-of-change-in-public-sector-procurement/15966#ixzz3AMmMhxug

Organisation for Economic Co-operation and Development (OECD). (2009). *Rethinking e-Government Services: User-centered approaches*. Paris: OECD.

OECD. (2010). Empowering entrepreneurship for competitiveness: Summary report. Paris: OECD.

OECD. (2011). OECD studies on SMEs and entrepreneurship—Thailand: Key issues and policies. Paris: OECD.

OECD. (2013). OECD studies on SMEs and entrepreneurship—Mexico: Key issues and policies. Paris: OECD.

PEMEX. (2009). Estrategia de Petróleos Mexicanos para el Desarrollo de Proveedores Contratistas y Contenido Nacional. PEMEX.

Perera, O., Chowdhury, N., & Goswamil, A. (2007, November). *State of play in sustainable public procurement*. International Institute of Sustainable Development. Retrieved from http://www.iisd.org/publications/state-play-sustainable-public-procurement

Promexico. (2014). *Pymes, Eslabon Fundamental Para El Cremimiento en Mexico, Pro Mexico*. Retrieved from http://www.promexico.gob.mx/negocios-internacionales/pymes-eslabon-fundamental-para-el-crecimiento-en-mexico.html

Ramos, D. (2013). *Peña Nieto plantea aumentar 9.3% el gasto público en 2014*. Animal Politico. Retrieved from http://www.animalpolitico.com/2013/09/pena-nieto-plantea-aumentar-9-3-el-gasto-publico-en-2014/#ixzz3AMnSvon8

Rodriguez, I. (2012). RoPemex aportó al fisco en 12 años más que el monto de deuda pública. La jordana. Retrieved from http://www.jornada.unam.mx/2012/11/04/economia/021n1eco

Rodrik, D. (2014). The return of economic dualism. The New Economy.

Schwab, K. (2013). Global Competitiveness Report 2012-2013. World Economic Forum, Geneva

Secretaria de Economía. (2014). Convocatoria pública para accedes a los apoyo del fondo nacional emprendedor. Diario Oficial. Retrieved from www.inadem.gob.mx/docs/convocatorias/1.1.pdf

Sinswat, W., & Subhanij, T. (2010). *A cross-country survey on SME financial access and implication for Thailand* (Bank of Thailand Discussion paper). Bangkok: Bank of Thailand. Retrieved from http://www.bot.or.th/Thai/EconomicConditions/Publication/DiscussionPaper/dp032010_eng.pdf

Tuluy, H. (2012, May 11). Latin America: Facing the challenge of productivity to sustain progress. Seventh Annual Latin America Conference, Miami, United States.

Villegas, M. (2013). Instrumentos financieros para facilitar negocios e inversiones intrarregionales. Retrieved from http://www.slideshare.net/NoticiasAlide/alide-43-tema-2-miguel-villegas

World Bank. (n.d.). World Development Indicators database. Retrieved from http://data.worldbank. org/data-catalog/world-development-indicators

World Trade Organisation. (2011). World Trade Report 2011. The WTO and preferential trade agreements: From co-existing to coherence. Geneva: WTO. Retrieved from http://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report11_e.pdf

© 2015 The International Institute for Sustainable Development Published by the International Institute for Sustainable Development.

International Institute for Sustainable Development Head Office

161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba, Canada R3B 0Y4 Tel: +1 (204) 958-7700 | Fax: +1 (204) 958-7710 | Website: www.iisd.org

Geneva Office

International Environment House 2, 9 chemin de Balexert, 1219 Châtelaine, Geneva, Switzerland Tel: +41 22 917-8373 | Fax: +41 22 917-8054 | Website: www.iisd.org



