MEXICAN INSTITUTE FOR SOCIAL SECURITY (IMSS)
ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)
FEDERAL COMPETITION COMMISSION (FCC)

IMSS and its Public Procurement System

Daniel Karam –with only 13 months to go until he had to deliver the administration of the Mexican Institute for Social Security (IMSS) [1]- had to decide how to prioritize these last months in terms of the financial viability of the institution. The increasing aging of the Mexican population, increased life expectancy and changes in the epidemiological profile of Mexicans put the institution at the brink of economic collapse. By the end of 2011, the medical insurance deficit of the institution represented 28.3% of Mexico's GDP.

Karam had been appointed director of the IMSS by President Felipe Calderón in March 2009. At age 36, he was one of the youngest directors the IMSS had witnessed. During the last 2 years and 9 months he had implemented many changes that tried to alleviate the financial pressure the institute was under. In particular, he had been especially successful in generating savings for the institute through improving the way IMSS purchased goods and services. Around 15% of IMSS resources were spent on purchases of medicines and medical supplies. In fact, the IMSS was the largest buyer of medicines and medical supplies in all Latin America. From 2007 until 2010, through centralizing purchases and establishing maximum reference pricing and subsequent discount bids, the IMSS had saved 2,838 million dollars.[2] However, even with these savings, there was still an imminent need for additional resources in order to be able to provide medical services to more than 50 million Mexicans –almost half the population. Karam knew, however, that unless the public was convinced that the IMSS spent its resources with complete transparency and efficiency, it would be politically impossible to ask the Mexican population for more resources.

Scandal within IMSS

On November 2010 the IMSS was the protagonist in the evening news. The show broadcasted a phone call between two IMSS medicines' suppliers discussing the not-yet public bases of a tender offer and making arrangements on how to collude. The scandal did not end there. A few months later, the news unveiled a corruption chain between IMSS public procurement officials that shared and modified tender bases with suppliers before these were publicly available.[3] The scandal did not take Karam by surprise; the Federal Competition Commission (FCC)[4], Mexico´s antitrust agency, had been working so far back as 2003 trying to find and prosecute IMSS suppliers colluding to rig bids. However, it did put additional pressure on Karam to make a firm statement against bid rigging to the outside of the institution and to fight corruption in the inside.

Karam started to look for ways to make spending more efficient and transparent. Many efforts had been done so far, but the scandal made it very important to make a decisive effort to put a stop to collusion and corruption. Karam's team started to look for international initiatives that fought this practice. They came across the *Guidelines for Fighting Bid Rigging in Public Procurement* (Guidelines hereafter) developed by the *Organization for Economic Co-operation and Development* (OECD). The Guidelines had not been implemented by any institution in any country and the IMSS quickly volunteered to be the first institution to adopt them. By the end of 2011, the first purchase cycle for

[1] *Instituto Mexicano del Seguro Social*

[2] The savings were calculated by using the amount of goods purchased from 2007 to 2010 but with prices paid in 2010. The comparison of what was paid and what would have been paid at 2010 prices is the amount saved by the institution.

[3] For a summary of the scandal see http://tvolucion.esmas.com/noticieros/noticiero-con-joaquin-lopez-doriga/144993/destapan-red-corrupcion-del-imss#.

[4] The Federal Competition Commission (FCC) or *Comisión Federal de Competencia* was the Mexican authority in charge of fostering competition.

This case was prepared for the **Mexican Institute of Competitiviness** (IMCO, www.imco.org.mx) by Regina García Cuéllar with the collaboration of IMCOs staff members Jana Palacios, Stephanie Zonszein and Marcelina Valdés and with the financial support of the Interamerican Conference for Social Security. Cases are developed solely as the basis for class discussion. Cases are not intedend for endorsement, sources of primary data or illustrations of effective or ineffective management.

the 2012 year carried out under the Guidelines had finished. Karam and his team were anxiously waiting to see the results. Still, Karam knew there were many things that had to be changed and modified. He had only a few months as head of IMSS and he wanted to make sure that the changes he made would have a permanent impact in the institution. He had to choose his actions carefully.

Mexico

In 2011, Mexico was the eleventh most populous country in the world, with a reported population of 112.5 million and Gross Domestic Product (GDP) of US $1,035 billion in 2010—the second largest in Latin America and the 15th largest in the world (see **Exhibit 1** for a map and **Exhibit 2** for Mexico's macroeconomic indicators). Mexico's GDP per capita was US $9,196 in 2010, the third largest in Latin America.[5] However, Mexico was a country of contrasts. The lowest 20% of the population accounted for only 3.9% of the total income, and the Gini coefficient was 0.517.[6] Approximately 40% of Mexico's population was considered poor, and 18% had been considered to live in extreme poverty. Mexico's population was rapidly urbanizing, with 77% of the population living in metropolitan areas.[7]

Regional wealth distribution was also markedly uneven, with income levels variable from state to state, with highest levels in the north where higher levels of development could be seen. Population in southern states was more indigenous and rural. Low-income workers earning less than two times minimum wages in the south accounted for 43% of the population and only 24% in the north. Education in Mexico was low and also unevenly distributed. The average Mexican citizen had 8.1 years of schooling while the average in OECD countries was 11.4. In terms of the Human Development Index (HDI), Mexico had been considered among the countries with a high HDI. However, when the index was adjusted by inequality it dropped 20%, and Mexico dropped 9 places in the international ranking. Its index, in terms of education, also decreased 20% when adjusted by inequality.[8] The southern states of Chiapas, Oaxaca and Guerrero –that were also the poorest in the country- had the lowest HDI in education. In contrast, the northern states of Nuevo León, Coahuila, South Baja California and Mexico City had the highest scores in the HDI in education.

Mexico´s economic growth has been slow with an average annual rate of 2.2% since 2000.[9] This slow growth had been attributed to high labor and energy costs, a weak non-oil tax base, a low skilled labor base and a shallow credit market. The 2008 world financial crisis hit Mexico hard producing the worst economic crisis in its recent history. GDP in 2009 fell almost 7% -a greater decline than that of any other country in the OECD, including the United States. Unemployment increased to 5.6% and real disposable income dropped by 10%. The economy showed a recovery in 2010, but growth in 2011 had been slower than in 2010. Average real wages increased 1.5%, but not enough to increase personal disposable income.[10]

---

[5] Economist Intelligence Unit country data, www.eiu.com last viewed 24/10/2011.

[6] A high Gini coefficient indicates a high level of income inequality, 0.000 corresponds to perfect equality and 1.000 to perfect inequality with one person having all the income. Source: Index, www.indexmundi.com/facts/indicators last viewed 9/14/2011.

[7] Data from the 2010 Population Census, INEGI, *Instituto Nacional de Estadística y Geografía*, www.inegi.org.mx last viewed 24/10/2011.

[8] Source: www.undp.org, http://hdr.undp.org/en/media/HDR_2010_ES_Table3_reprint.pdf last viewed 9/14/2011.

[9] Source: Economist Intelligence Unit, last viewed 24/10/2011.

[10] Economist Intelligence Unit, www.eiu.com, last viewed 24/10/2011.

In 2010, government expenditures represented 24% of GDP. Likewise, government purchases were 10% of GDP for the same year and represented around 30 to 40% of total government expenditures.[11] Government purchases had been growing in past years and each year they represented a larger share of the government's income and spending (see **Exhibit 3**).

Perceived corruption in Mexico was high. In a survey conducted by the World Economic Forum in 2006, Mexican entrepreneurs answered that bribery risk in public contracts was higher than what entrepreneurs answered in other OECD countries. In a scale from 1 to 7, 1 being "corruption is common" and 7 "corruption never happens" Mexico obtained a 4.3 compared to an average of 5.4 in OECD countries. Bribery risk in all countries was much higher in public contracts than in public utilities, tax collection or the judiciary system.[12] In other corruption indexes collected by Lopez de Silanes and Shleifer Mexico appears at the top 5 places from OECD countries in terms of corruption.[13]

IMSS and the Mexican Healthcare System

The Mexican healthcare system was born with the creation of the Ministry of Social Assistance (today Ministry of Health or MoH)[14] in 1938. A few years later, in 1943, the Mexican Social Security Institute (IMSS) was founded. The Mexican healthcare system was composed of separate and vertically integrated sub-systems that functioned independently and with no connections between them. On one side, healthcare for formal private and public sector employees was provided mainly through the two largest social security institutions: IMSS, in charge of delivering social security benefits to salaried workers belonging to the formal private sector and their families and the Institute for Social Security Services for State Employees (ISSSTE)[15], in charge of providing social security benefits to federal public servants and their families. Public servants at the state level as well as workers at the armed forces (SEDENA), the marines (SEMAR), and the national state oil company (PEMEX) also had their own smaller social security institutions that delivered healthcare for these public sector workers and their families[16]. Financing for these social security institutions came from three party contributions: the government, the employer and the employee. In the case where the employer was also the government, the government paid two thirds of the financing. The delivery of services for beneficiaries was performed through their own network of clinics and hospitals using medical staff employed by the social security institutions.

Parallel to these social security and health institutions, the MoH operated centrally-controlled medical facilities for what was known as "the open population", referring to all the unemployed, self-employed, rural workers or otherwise non-salaried informal workers of the economy that had no access to social security institutions. In 2003, the Mexican Congress passed a health reform creating the System for the Social Protection of Health (SPSS).[17] The system was based on a new insurance

---

[11] Dirección General Adjunta de Estadística de la Hacienda Pública, Unidad de Planeación de la Hacienda Pública, www.shcp.gob.mx.

[12] "Government at a glance", Preventing Corruption, OECD, 2009, ISBN 9789264061644, last updated, 12/10/2009.

[13] Djankov, Simeon, Rafael La Porta, Florencio Lopez de Silanes, and Andrei Shleifer, "Disclosure by Politicians", American Economic Journal: Applied Economics 2 (April 2010): 179-209.

[14] The Ministry of Health or *Secretaría de Salud* was first named the Ministry of Social Assistance (*Secretaría de Asistencia Social*) and shortly after in 1940 renamed the Ministry of Sanitation and Assistance (*Secretaría de Salubridad y Asistencia*).

[15] *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*.

[16] SEDENA: *Secretaría de la Defensa Nacional*, SEMAR: *Secretaría de la Marina* and PEMEX: *Petróleos Mexicanos*.

[17] *Sistema de Protección Social en Salud*

plan for low income people: the Popular Health Insurance or Seguro Popular (SP). The SP was a voluntary insurance program aimed at covering those left uninsured by the current system. Premiums for the SP were progressive, with the first income quintile[18] exempted from payment (in return for adherence to certain preventive health practices). Premiums for paying customers were capped at 5% of family disposable income. The SP provided coverage for a vast number of primary care and hospital interventions (covering 95% of medical services demanded in Mexico) as well as lab tests and all medications. The care was given at MoH facilities; it was free at the point of service and covered the policy holder and his or her dependents. Because 96.2% of families registered belonged to the lowest income quintile, premiums paid only covered 0.4% of the SP budget and the rest was financed through Federal and State government resources.[19]

The fragmentation of Mexico´s healthcare system caused it to have high administrative costs. With regards to all OECD countries, Mexico had the highest healthcare system administrative costs. Moreover, its non-competitive pharmaceutical industry caused Mexico to have one of the highest medicines´ price indices of across all OECD countries (see **Exhibit 4**) and as a result it had the lowest per capita consumption of pharmaceuticals.[20] Mexico's medications, both generics and patented drugs, had higher prices than the average.[21]

The private healthcare system took all the overflow demand that was not serviced by the public system. Private insurance covered only 1% of Mexico's population and those insured were covered for a minimal number of procedures. High premiums were a significant barrier preventing most Mexicans from purchasing private health insurance (see **Exhibit 5**).

Access to social security was also markedly uneven across states. According to the 2010 Census data, the poorest states that were Chiapas, Guerrero and Oaxaca had less than 20% of the population with access to social security.[22] In contrast, the richest northern states had more than 50% of their population covered by social security institutions.

IMSS

The IMSS was the largest social security institution in Latin America and the main social security institution in Mexico. It attended almost half of the Mexican population. In 2010, the IMSS had 385,942 employees, mostly of which were healthcare personnel. The IMSS employed 95,743 nurses, 69,645 doctors and 61,625 paramedics who in a typical day allowed the IMSS to provide 470,398 medical consultations, 48,882 emergency care services, 4,042 surgical interventions and more than 721,735 diagnostic tests.[23]

The IMSS had three main branches: i) a risk management institution that managed insurances, ii) the service providing entity which provided preventive and curative healthcare as well as day-care services to workers and their families and iii) collecting arm that collected contributions from

[18] The fifth (20%) of the population earning the lowest income.

[19] Seguro Popular, Informe de Resultados 2009, www.seguropopular.gob.mx, last viewed 5/6/2010.

[20] OECD, "OECD Public Procurement Review of the Mexican Institute of Social Security", November 2011.

[21] Danzon and Fukurama estimated that Mexico's generics and patented drugs prices were 51% and 26% respectively higher than the average of 12 countries. "International prices and availability of medications in 2005", Health Affairs, 27(1), 2008

[22] INEGI, www.inegi.org.mx last viewed 24/10/2011.

[23] The Mexican Institute of Social Security: Evolution, Challenges and Perspectives, Mexico 2010 and data from the Director's presentation to the Harvard Club in Mexico.

employers and employees. The insurances covered by IMSS were occupational hazards, illness and maternity, disability and life as well as retirement, elderly unemployment and aging. The healthcare providing entity operated 1,510 family medicine units, 262 general hospitals and 25 high capacity and technology hospitals. Altogether, these units contained 29,728 hospital beds, 1,181 operating rooms, 15,240 doctor´s offices and 728 pharmacies. It also operated 1,459 day-care centers, 135 discount stores and 74 theaters (see **Exhibit 6**). The contributions collected by IMSS represented 1.5% of Mexico´s GDP.

The IMSS was governed in the same way that it was financed. Its governing body had representation from the Federal Government, the workers and the employers. The IMSS governing body was divided in the General Assembly (GA), the Consultory Board (CB), the Vigilance Commission (VC) and the Office of the General Director (GD). The GA and the CB were the most important governing bodies within the institution. The general director presided over both the GA and the CB during his or her tenure. The daily operation of the institution was coordinated by the Directors of Operations (DO), 35 Delegations and 25 High Specialty Medical Units (HSMU). The DO were intermediaries between policy making and policy implementation. They were responsible to seeing how the goals were to be met and services provided. The delegations were local entities in charge of administering first and second level medical units and the HSMU provided third level medical services (see **Exhibit 7**).

Public Procurement in the IMSS

The IMSS was the largest medicines and medical supply purchaser in all Latin America. Only in 2011, the IMSS spent around 5 billion dollars in its purchases.[24] IMSS public procurement represented 6.6% of all public sector purchases –it was the 3th largest buyer from the public sector in Mexico- and around 15% of its yearly budget. IMSS purchased goods, services and public works (see **Exhibit 8** and **9**). 90% of goods purchased by IMSS were therapeutic goods such as medicines and medical supplies. Most medications bought by IMSS were generic drugs; only 9% were patented drugs. Within services, the most important services that the IMSS outsourced were hemodialysis, blood banks, lab services and minimal invasion surgery. These services were labeled as integral services as all material and supplies needed to provide the service were offered in a package.

IMSS purchases were ruled under the Law of Acquisitions, Leases and Services in the Public Sector (LAASSP by its Spanish acronym).[25] The LAASSP provided the rules under which public procurement in the public sector had to be carried out. The LAASSP stated that public procurement had to be carried out through public biddings in order to assure the best purchasing terms for the public sector. However, the LAASSP also stated some exceptions under which purchases could be directly awarded to a supplier or have a tender with a restricted invitation to at least 3 suppliers. These exceptions could be if urgent purchases were needed, when confidentiality or security conditions were important or when there was only one supplier.[26] From 2006 to 2011, in terms of volume and in terms of value the purchases had moved more toward public biddings than direct award or invitation to at least 3 competitors (see **Exhibit 10**).

Purchases before improvements to the IMSS´ acquisitions policy

[24] IMSS transparency portal.

[25] Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público (LAASSP).

[26] Also, public offices could procure goods without using a tender offer if the value of each contract was below the maximum allowed each year in the Federal Budget and the amount of goods purchased through this exception could not exceed 30% of the agency's annual procurement budget.

Before 2007, public bids under LAASSP had to be done through a first-price sealed-bid mechanism for all medications, supplies and services purchased by the IMSS. In the auction, the amount of purchases was allocated to the lowest priced bid as long as it was below a reserve price (which was decided by the IMSS) and was not made public. In case of a tie, the contract was allocated by a random mechanism[27]. Bids were opened publicly in the presence of all bidders.

Auctions were reserved to Mexican national unless, by free trade agreements, it was mandatory to open the tender to international bidders from these free-trade agreement countries in which case the event was labeled as international under free trade. Another option was to have an open tender where all interested parties, regardless of their nationality, could participate. Mexican suppliers had 15% preference in price above international bidders. Furthermore, drug importers had to have one manufacturing plant in Mexico. When a bid was declared void, public agencies had the option of direct award, invitation to at least 3 –and could reserve these exceptions to Mexican suppliers- or they could do an open tender. International bids were only 17% of total bids and in terms of value they represented only 5% of the total amount purchased.[28]

In this time period, public procurement in IMSS was completely decentralized. Each one of the 35 state delegations and of the 25 HSMU did its own purchasing process. Tenders and public procurement processes in each delegation and unit were completely independent from one another and occurred very frequently. For example, during the period from 2003 to 2006, the IMSS had 248 auctions for each drug.[29]

The purchases cycle (see **Exhibit 11**) started with medical staff giving their medications and supplies requirements to the supplies area within IMSS. The medical staff determined the medicines and supplies requirements based on statistics of morbidity, nativity and the epidemiology of the Mexican population along with specific necessities of IMSS patients. Medicines and supplies available to doctors had to be pre-approved by the institution and had to belong to a Basic Medical Catalog.[30] Requirements had to be consistent with the available budget, could not be 15% more or less than in previous years and were also revised against a list of IMSS patients. The list of needed purchases was the sum of medical requirements, less current inventories plus a safety net of some medicines and supplies.

The IMSS made public the bases of the tender offer in the federal procurement website CompraNet (Spanish for web purchases). The bases of the tender established all the elements of the tender (the type of process, restrictions on participation, technical requirements, if it was permitted to split contracts between contestants, if suppliers could bid together, and the criteria for awarding contracts). By law, the IMSS had to hold a clarification meeting with possible suppliers to discuss queries or clarify doubts that interested bidders may have. Bidders had to present in writing their doubts or questions 24 hours prior to the clarification meeting. In that meeting, all suppliers went to an IMSS office and discussed the tender's terms and conditions. Once bids were received, the IMSS would make public the winning bid –which was chosen in basis of price as long as it fulfilled with all the technical requirements. The IMSS also made public the price of the winning bid and the prices of the losing ones. To win a bid, the price had to be between two reference prices. The lower bound of the range was a "convenient price". This price was calculated from the average of the technically accepted bids in the tender less a 40% discount. The upper bound was the "non-acceptable" price

[27] According to the article 36bis of the LAASSP, in case of a tie, before proceeding to the random award mechanism, there would be preference to a firm if it was micro, small or medium sized.

[28] "Fighting Bid Rigging in public procurement in Mexico: an OECD Secretariat's report into the current legislation and practices governing IMSS' procurement", OECD, 2011.

[29] Ernesto Estrada and Samuel Vazquez, "Bid Rigging in Public Procurement of Generic Drugs in Mexico", Federal Competition Commission, Mexico.

[30] The Federal Commission for the Protection against Sanitary Risks or COFEPRIS was in charge of selecting medications that could be sold in Mexico. A Health Sector Committee formed by representatives of MoH, IMSS, ISSSTE, PEMEX and SEDENA decided which medications would be included in the Health Sector Basic Medications Catalog (*Cuadro Básico de Medicamentos del Sector Salud CBMSS).* The IMSS had its own Medications Catalog. A committee within IMSS analyzed drugs within the CBMSS and decided which of those to be included in the IMSS catalog.

which was calculated as 1.1 times the average of the technically accepted prices in the tender offer. The maximum or "not-acceptable" price could be revealed by the agency if some bidders filed an appeal against the public agency´s ruling of the tender.

Losing bidders could complain against a part of the process –including the ruling- with the IMSS internal control organ. If there were valid grounds for the complaint, the part of the process to which the complaint referred was repeated. If the complaint was against the ruling, the award process would be repeated.

In some situations, winning bidders did not fulfill their contracts and did not supply IMSS with the medications or supplies awarded to them in. Non-fulfillment was generally partial as suppliers did not deliver medications in some regions or HSMUs (probably because it was too costly or not profitable to deliver the medications in that region) or on some of the medications awarded. Non-fulfillment of contracts was more common in medications than in integral services. In these non-fulfillment situations, the IMSS gave 15 days to supply the goods without penalty and 4 more days to supply goods with a 10% penalty for the delay. After these 19 days, the contract was catalogued as breached and the delegations and HSMU had to follow a process to replace the goods and services needed. The public officers could decide whether to cancel the part of the contract that was non-fulfilled or to rescind the whole contract. If the contract was rescinded, then the IMSS would have to replace the whole contract and not just the part that the supplier did not provide. This was so as non-fulfillments involved only some medications or some regions that the provider could not supply. Therefore, most of the times, IMSS purchases officials preferred not to rescind a contract and only buy what the supplier had not delivered.

The process for replacing non-fulfillment was as follows: First, the delegation or HSMU would see if there was another supplier in the contract (or the second lowest bidder) and would buy those items with the second supplier. If not, then the delegation or HSMU would see if they had inventory on those goods or if another nearby delegation or HSMU had those items in inventory. If neither of these options worked, delegations could buy the goods as non-fulfillment purchases with the original budget set for them. But if there were no other suppliers that could provide goods, the IMSS internal procurement policies[31] stated that with a certain pre-accepted budget (maximum 2% of their purchases budget), delegations and HSMU could buy medicines or supplies emergently with local suppliers.

Recent improvements to the Acquisition Process

Since 2006, the IMSS started to implement measures in order to increase efficiency and transparency in its purchasing process. Firstly, in mid-2006, the IMSS started a centralizing effort of medications and medical supplies´ purchases with the objective of increasing its purchasing power. It reduced its procurement units to 2 –instead of 52. However, integral services´ purchases were not centralized and were still made at the delegation level. At the end of the centralizing effort, purchases acquired centrally were 58% of total purchases. Purchases within states were not distributed evenly; the larger and richer states such as Distrito Federal, Mexico State, Nuevo León and Jalisco exercised 44% of purchases. According to the IMSS report, in 2007, centralization of medications and medical supplies´ purchases generated 211 million in savings to the institution.[32]

Also in 2006, the IMSS changed the auction process from one of first-price sealed-bid to benchmark or maximum reference pricing (MRP) tenders. In these types of tenders, the IMSS supplied bidders with a benchmark price (MRP) and bidders submitted discounts to MRP. Due to this mechanism, the IMSS saved almost 60 million dollars.

[31] The IMSS internal procurement policies were named the POBALINES, *Políticas, bases y lineamientos en materia de adquisiciones y servicios*.

[32] IMSS, "Ahorro en Insumos Terapéuticos, Comparativo 2007-2011".

In 2007 to improve transparency, government officials from the Public Function Ministry[33] started helping IMSS purchasing officials in the whole purchasing cycle. The program was called "accompaniment tables" and these were to be used in all tenders that were of a significant amount, in goods of strategic importance, or in processes that had not been transparent or partial in the past. Accompaniment tables would literarily "accompany" IMSS purchasing officers throughout all the purchasing cycle and advise them on best practices and legal issues in each stage of the process. The IMSS also introduced social witnesses in their largest tenders with the objective of having a third party witness the transparency of the process. Social witnesses were citizens from *Transparencia Mexicana*[34], a Mexican NGO in charge of eliminating corruption in government processes. Later on, social witnesses from other NGOs adhered to the program as well. Social witnesses would observe the purchasing process and issue a report on the clarity of the process.

With regards to patented drugs –which before were purchased individually by each public health institution- in 2008 the MoH created the Price Negotiating Commission.[35] This commission had the objective of increasing the public health sector´s purchasing power against pharmaceutical companies that sold patented drugs.[36] The Commission would sit at the table with pharmaceutical companies and negotiate prices for patented drugs that would be bought by the entire public health sector.

In 2009, in addition to MRP, the IMSS introduced reverse auctions or subsequent discount bids (SDB). SDB were carried out in two phases and it was a completely electronic process. In the first phase, bidders would present a price. In SDB, IMSS´ MRP was not provided to bidders. In the next stage, the bids were opened and disclosed electronically to all providers, and a reverse auction was carried out with the starting price being the lowest price offered by bidders in the first phase. If the lowest price supplied by bidders was above the MRP, the starting price in the second phase would be the MRP. IMSS started implementing SDBs in 2009 and it was one of the first institutions in Mexico to use them.[37] In 2010, the IMSS saved around 93 million dollars by the use of SDB.[38]

In 2009, the LAASSP was reformed and many new processes were added to the purchasing cycle (see **Exhibit 11**). One of the most important changes was the introduction of market studies. Market studies were done with the purpose of ascertaining the prevailing market conditions before the type of event –national, free trade or open- was decided as well as the type of bidding (MRP or SDB) was chosen. They studied the existence and number of suitable suppliers, if those suppliers were Mexican or not and estimated current prices. Market studies were also required to justify the decision of using one of the exceptions (direct award or a restricted tender). However, until 2011, market studies simply obtained a median price based on what other public health institutions paid or on historic prices paid by IMSS itself. This median price was used to calculate the MRP. For the 2011 purchase cycle, market studies for integral services also included questionnaires that were sent to suppliers asking on volume and prices, technical specifications and the ability to provide the good or service in certain locations. For the 2012 purchase cycle, the questionnaires were extended to all medicines and medical supplies and the IMSS hired two external consulting firms to help them with market studies. One of the firms did the questionnaire used for market studies and the other firm analyzed the market studies results in order to determine the type and modality of tenders.

The IMSS also changed the criteria for making awards. Before, in all its tenders it had a binary criterion in which the lowest price was awarded the contract. However, as of 2010, in integral

---

[33] The Public Function Ministry or Secretaría de la Función Pública was the Ministry in charge of the honesty and transparency of all the government offices.

[34] *Transparencia Mexicana* was the Mexican Chapter of the NGO *Transparencia Internacional* or Transparency International the global NGO that fought corruption in more than 100 countries www.transparency.org.

[35] Comisión Negociadora de Precios.

[36] In Mexico, patented drugs were produced mainly by international pharmaceutical companies. Most Mexican pharmaceutical companies produced generic drugs. In 2011, the Price Negotiating Commission also negotiated prices for products or medicines, that even though they did not have a patent, were unique and had no substitutes.

[37] The first institution to use SBDs in Mexico was the Federal Electrical Company (*Compañía Federal de Electricidad* or CFE) in the purchase of imported coal.

[38] IMSS, "Ahorro en Insumos Terapéuticos, Comparativo 2007-2011".

services, and with the objective of reducing non-fulfillment, the criterion was changed towards a point and percentage mechanism where price determined only 50% of the decision. The other 50% was determined by technical capabilities, experience and specialty as well as their fulfillment capacity. In open tenders, the criterion was 40% price and 60% technical capabilities.

In order to limit the amount of non-fulfillment in the contracts the IMSS introduced a concept called "simultaneous supply" or contract splitting. In order to guarantee that contracts would be, at least partially, fulfilled, the IMSS awarded 60% of the contract to the lowest bidder and the resting 40% to the second lowest price as long as the difference between those two prices was less than 5%. If the difference was more than 5%, then the lowest price would be awarded the full contract. For the 2012 purchasing cycle, these percentages were changed to 50% to the lowest price, 30% to the second lowest price and 20% to the third lowest price, also as long as the difference between the prices was less than 5%.

Non-fulfillment had been increasing in recent years (see **Exhibit 12**). So to make more efficient the process of replacing non-fulfillment goods, in 2009 the Unique Supply Bank or BUO (for its Spanish acronym) was created.[39] The BUO was an electronic listing of all local suppliers, their goods, prices and delivery time. When there was an un-fulfillment in a delegation or HSMU, the supply officer, after checking if it was a simultaneous supply and a second or third supplier could supply the contract, and after seeing if the needed goods were not in inventory or in another nearby delegation or HSMU, could consult the BUO and see which local supplier, at what price and with which delivery timetable was able to provide the goods. The resources needed to complete the BUO purchase were the same that were going to be spent in the original contract. If there was no one listed in the BUO, purchasing officers could do an emergency purchase. Goods purchased through the BUO had an over-price which was on average 4% higher than purchases done through the regular process. In contrast, goods that were purchased emergently had an over-price which was 420%.[40] Savings due to the use of BUO for purchases amounted to 1 million dollars in 2009. Given that the budget for purchases was fixed, as a result of the over-price paid, in non-fulfillment situations less medications or supplies were bought that what was originally required.

Bid Rigging in Public Procurement

Bid rigging or collusion was an agreement among suppliers to reduce competition and to increase prices. According to the OECD bid rigging increased the cost of goods and services by around 20%[41]. In Mexico, a study done by the FCC in 2006 revealed that the IMSS paid between 12 to 36% higher prices than what could have been obtained in a competitive environment[42]. The way in which suppliers rigged bids was when a competitor agreed by submitting non-competitive bids whose price was too high or the terms unacceptable so that another competitor won the tender with a higher than competitive price. Another strategy of collusion was by agreeing not to compete in tenders or submitting bids only in certain geographic areas. Later, competitors would split gains either by subcontracting one another, by bid rotation schemes where bidders take turns to submit the lowest bid and thus win the tender. Bidders also could agree to split markets or geographic areas. But in order to collude, bidders needed to know each other and communicate in order to reach agreements. There were some factors that facilitated agreements among suppliers such as when there were a few number of bidders, when bidders were always the same and/or if the industry had many opportunities for the bidders to meet. Also, if the products that were tendered were simple, did not change over time and/or if there was little or no technological innovation, collusion was also easier. Bid rigging could also be more likely if barriers to entry into the market were large. Collusion was

[39] Bolsa Única de Ofertas or BUO.

[40] IMCO (*Instituto Mexicano para la Competitividad)* "Evaluación del Acuerdo IMSS-OCDE-CFC". The IMCO was a Mexican think tank that studied and evaluated the Competitiveness of the Mexican economy, www.imco.org.mx .

[41] OECD, www.cfc.gob.mx/images/stories/Noticias/Comunicados2011/discursojoseangelgurriatrevino.pdf

[42] Federal Competition Commission, www.cfc.gob.mx/index.php/RESOLUCIONES-Y-OPINIONES/buscador-de-resoluciones-y-opiniones-de-la-cfc.html

also more likely when auction frequency was high as it was easier to split tenders between suppliers or when demand for the good was predictable and increasing. Increased information on winning and losing prices also facilitated collusion as suppliers could easily detect if a competitor broke the collusion agreement.

OECD Guidelines against Bid Rigging

Public procurement in several countries had proven to have bid rigging. For example, in the United States, it was discovered that there was a conspiracy to increase milk prices sold to public schools in 18 states. In Japan, fight against bid rigging reduced resources spent in public procurement by 20%. Thus, based on evidence of more than 30 jurisdictions, the OECD developed a methodology to assist procurement officials in detecting bid rigging and developed the *OECD Guidelines for Fighting Bid Rigging in Public Procurement*.[43] The guidelines pointed out markets in which bid rigging was more likely to occur, practices that officials should use to detect bid rigging, suspicious pricing patterns, suspicious statements, documents and bidder behavior.

The guidelines had a set of recommendations that helped officials when planning a tender offer and also a checklist that officials should examine during the bid process and after the award was given to look for suspicious behavior that could indicate bid rigging. As bid rigging was difficult to prove in one single tender offer, the guidelines recommended public procurement officials to gather data from many tender offers and to analyze data constantly to detect unusual or suspicious actions. The Guidelines stated that if bid rigging was suspected, officials should not discuss concerns with participants, they should keep all documentation (including envelopes, emails, correspondence, etc.), and a detailed record of all suspicious behavior and statements including dates, who was involved, who was present, what exactly was said, among other details. Once all documentation was ready, officials should talk to competent authorities and consider whether it should be appropriate to continue with the tender offer.

In 2011, the IMSS was the first institution to implement the Guidelines drawn by the OECD to tackle bid rigging. The OECD worked all through 2011 with the IMSS to improve rules, procedures and training of Mexico's procurement officials. OECD's Secretary-General, Mr. José Angel Gurría said; "This partnership is path breaking. It is the first time the OECD will work with a government institution to apply the Guidelines. I am sure there will be other public institutions around the OECD that will follow this example."[44] Gurría, a Mexican himself, had worked in the Mexican government prior to accepting the OECD secretariat and was Minister of Finance and Minister of Foreign Relations under Mexican President Zedillo. The guidelines contained a checklist that public officers had to revise before making a public tender:

[43] See http://www.oecd.org/dataoecd/27/19/42851044.pdf. Last viewed 6/7/2011.
[44] "OECD to help Mexico tackle bid rigging for government contracts"
in www.oecd.org/document/59/0,3746,en_21571361_44315115_46888443_1_1_1_1,00.html last viewed 6/7/2011.

Checklist for Designing the Procurement Process to reduce risks of bid rigging:

1. **Information: before designing the tender offer, the officials have to be informed on the characteristics of the market, information on suppliers, bidders, prices, past tenders of the same or similar products, etc.**
2. **Design the tender offer to maximize the number of potential participation of competitive bidders: reduce the cost of bidding, eliminate barriers to entry the tender offer, open participation to firms of other regions or countries, allow small companies to participate even though they cannot supply the entire contract.**
3. **Define requirements as clearly as possible, avoid predictability and use product specifications**
4. **Design the tender process to reduce communication among bidders: use electronic bidding, do not hold back to back meetings with different bidders , use first-price sealed bid instead of a reverse auction, use benchmark pricing only if it is based on thorough market research and officials are certain it is a very competitive price, do not allow joint bids and force bidders to disclose communications between bidders and to sign a Certificate of Independent Bid Determination*. Include in terms of tender sanctions to bid riggers and beware of companies that have been involved in bid rigging in the past.**
5. **Carefully choose criteria for evaluating and selecting tenders: if evaluating tenders on criteria other than price (product quality, post-tender services, etc.) disclose such criteria to avoid post-award challenges. Make tenders to be anonymous to avoid favoring some competitors.**
6. **Train your staff about bid rigging in public procurement: collect information on historical bid behavior, monitor bid activities and analyze bid data. Bid rigging behavior might not be evident on data on a single tender. Often, a collusion is evident when one analyzes results from a number of tenders over a period of time.**

*** A Certificate of Independent Bid Determination requires bidders to disclose all material facts about any communications that they have had with competitors pertaining to the invitation of the tender. Also, in the certificate bidders have to attest that the bid submitted is genuine, non-collusive and made with the intention of accept the contract if awarded.**

The Guidelines also contained the following recommendations:

OECD GUIDELINES FOR DETECTING BID RIGGING IN PUBLIC PROCUREMENT

Bid rigging agreements may be difficult to detect as they are typically negotiated in secret. In most industries it is necessary to look for clues such as unusual bidding or pricing patterns, or things that vendors say or do:

1. **Look for warning signs when companies are submitting bids:**
   - **Same supplier always has the lowest bid**
   - **Some suppliers only win in certain geographic areas**
   - **Regular suppliers do not bid in tenders that they should bid**
   - **Some suppliers withdraw from the bid**
   - **Some suppliers always submit bids but never win**
   - **Each company takes a turn in being the winning bid**
   - **The winner subcontracts unsuccessful bidders**
   - **Competitors regularly socialize or have meetings shortly before or after a tender offer**
2. **Look for warning signs in submitted documents:**
   - **Carefully compare all documents for evidence that the documents were prepared by the same person or jointly for example look for similar miscalculations or estimates, same spelling errors, same handwriting or typeface, price increases in same amounts, among other factors.**
3. **Look for warning signs and patterns related to pricing:**
   - **Look for patterns that companies might be coordinating to calculate prices that cannot be explained by cost increases. For example, if the loser bid is always much higher or certain percentage higher than the winning bid, higher prices for similar previous bids, among other factors.**
4. **Look for suspicious statements:**
   - **Look for statements that might indicate that vendors have coordinated among each other. For example, statements that indicate an agreement, or that indicate that prices were calculated according to industry standards, or that some sellers offer products only in certain geographic areas, etc.**
5. **Look for opportunities that the bidders have to talk to each other**
   - **Competitors need to communicate with each other to reach agreements. Most of the times they meet in person in trade association meetings or other professional or social events. These meetings are likely to occur prior to the opening of tender process.**
6. **Look for relationships among bidders once the successful bid has been announced**
   - **Look at ways bidders might split the extra profit that is earned through bid rigging.**
7. **Look for unusual or suspicious behavior**
   - **If a company asks for two bidding packages, a company submits two bids one for then and one for a competitor, if a company brings many bids to an opening and decides which to submit after seeing who entered the tender offer, etc. Moreover, if the winner does not accept the contract, or withdrew before the award was made. If a bid was presented with incomplete documentation, or a bid with unusually low number of bidders, with normal bidders not participating.**
8. **What should officials do if they have suspicion of bid rigging?**
   - **If officials suspect bid rigging has occurred further investigation is required.**
   - **Officials should keep detailed information on all suspicious behavior, documents, emails, etc.**
   - **Officials should contact the governing body responsible for competition enforcement. In no instance they should tell the bidders of their suspicions as this might translate in destruction of evidence.**

The reception of the Guidelines within IMSS was taken at the beginning with some skepticism. María Elena Mondragón, IMSS director of public procurement stated: "When I saw the Guidelines, my first impression was that they were very general. I thought to myself, these are things we are already doing. I believed that what the Guidelines´ could achieve would be to put consistency and standardizing procedures of things that were already doing. However, once we analyzed the Guidelines into more detail we saw that they could have an impact." Eduardo González Pier, IMSS´ Chief Financial Officer stated, "Through all the efficiencies we implemented in the past years, we were able to catch the low-hanging fruits of savings (see **Exhibit 13**). Now it will be more difficult to generate the savings we generated in the past. I think the Guidelines can help us with just that as it is very difficult to detect collusion, more difficult to prove it and even more difficult to design tender processes that prevents collusion. The adoption of the Guidelines could help us become keener into preventing collusion."

The OECD worked closely with IMSS to suggest improvements to its procurement process. After a year of reviewing and working closely together, the OECD designed specific Guidelines for IMSS'

purchasing process. These guidelines were an effort to adapt the Guidelines to the IMSS specific needs in its purchasing process:

Preliminary Recommendations to IMSS for Fighting Bid-Rigging in Procurement

These recommendations need to be adopted in a flexible and dynamic way. No single recommendation is likely to be valid for all tenders and forever, as bidders who have colluded in the past (or wish to do so in future) react to policy changes and explore different ways to collude.

1. Further consolidation of purchases:
   - Further consolidation of purchases across its local centers; use multi-year tenders where appropriate (e.g. for which the number of eligible suppliers is fairly stable); and procuring goods and services jointly with other government agencies.
2. Coordination with SFP and FCC and adoption of best practices:
   - Use standardized tender documents and procedures.
   - Adopt electronic bidding for all its purchases.
   - Use social witness earlier in the procurement cycle
   - Formalize cooperation with FCC by signing a protocol
3. Fighting practices which might facilitate collusion:
   - Only allow joint bids when there are pro-competitive justifications.
   - IMSS should limit splitting contracts between multiple suppliers to only when un-fulfillment could be a concern.
   - IMSS should ban the use of sub-contracting and oblige bidders to disclose before if they are going to subcontract
   - Within the limits imposed by the law, IMSS should assess whether the amount of information that is published in its annual procurement plan, as well as its level of detail, may facilitate collusion.
4. Increased use of competitive mechanisms:
   - IMSS should limit the use of exceptions to public tenders.
   - Whenever a tender is declared void, IMSS should opt for opening up the tender more fully (e.g. to non-Mexican suppliers if a national tender has been declared void) rather than using an exception.
   - IMSS should increased the level of discount to 80% (currently at 40%) used to calculate convenient prices. In order to evaluate bids IMSS should use the binary criterion (whereby the contract is awarded to the lowest bidder) instead of point and percentage mechanisms (which have higher margins of arbitrariness).
   - IMSS should change tender mechanisms, timing of tenders and extent of consolidation in a way which makes collusion more difficult to emerge or disrupts existing agreements.
   - IMSS should consider requiring a Certificate of Independent Bid Determination to accompany all tenders
5. Overhaul of market studies:
   - Improve IMSS planning procedures in order to have enough time available for the elaboration of informative market studies.
   - IMSS should consider making changes to the way market studies are currently conducted so that a sufficient amount of information is collected from good-quality sources (possibly including international comparators) to inform the choice of the tender procedure to use as well as the level of reference prices.
   - Information contained in the market studies should not be disclosed to bidders before the tender.
6. Monitoring and information-sharing activities:
   - IMSS should regularly monitor the number of bidders for each macro category of expenditure and check that such number does not fall below acceptable levels.
   - Related to this, it should investigate why bidders decide not to bid any longer and take appropriate actions to remove obstacles to participation.
   - IMSS should maintain a comprehensive dataset for all its tenders and make it available to FCC so that any suspicious bidding pattern may be promptly investigated.
   - IMSS should regularly share price information with other agencies and check whether the price it pays for the goods and services it purchases are comparable to what other agencies pay (even abroad, especially for standardized goods, e.g. medicines).
   - IMSS should set up clear procedures and reporting lines for its procurement staff to report any suspicious instances of collusion.
7. Training activities:
   - IMSS should implement a training program for its procurement staff focusing on bid rigging and ways to fight it.

What´s next

Some of the specific recommendations given by the OECD to the IMSS were easy to implement or had been implemented before the adoption of the Guidelines. Others were more complicated as they required changes in the LAASSP. In fact, 8 out of the 22 recommendations had already been implemented before the adoption of the Guidelines. Three of them –evaluating if the information given out by IMSS could facilitate collusion, training personnel on collusion and that the IMSS should change the tender mechanisms, timing of tenders as well as consolidation degrees to hinder new or existing collusion agreements- were implemented by the IMSS in the 2012 purchasing cycle.[45] IMSS purchasing officers received training to become aware of detecting collusion and designing tenders that would limit the ability of suppliers to collude. Also, as a measure to decrease corruption to the inside of the institution, IMSS designed surveys and psychological tests that evaluated the propensity for stealing, lying, or deviating from the law of officials in high-corruption risk positions. If an official was proven to have those tendencies in bases of the evaluations, he or she would be assigned to a lower corruption-risk position. The same studies were done to all prospective employees that wanted to work in IMSS.

Other OECD recommendations, such as making tenders electronically, expand collaboration with FCC and better planning so to have more thorough and informative market studies, would be implemented in following purchase cycles. The IMSS decided not to implement five recommendations that it thought could jeopardize the supply of medicines and medical supplies. These recommendations were: stating in the tender bases that joint bids were only allowed if there were pro-competitive justifications (for example when there are small bidders that alone cannot fulfill a contract or when two providers are in different geographic regions that alone cannot fulfill the contract); allow splitting contracts only as an exception (e.g. to allow new entrants to gain a presence in a market); information from market studies should not be shared with bidders before the tender; in order to dissuade bidders from subcontracting other bidders the IMSS should require bidders to state in their bid if they plan to subcontract, identify those who they are going to subcontract and explain why the need to subcontract and lastly that bidders have to sign a Certificate for Independent Bid Determination (CIBD). According to the OECD, the CIBD could help inhibit collusion as it informed bidders about the illegality of bid rigging, made prosecution easier and could add penalties, including criminal penalties, for the filing of a false statement (see **Exhibit 14**)

Thus, if IMSS adopted all recommendations, its purchasing policy would improve and it would be in accordance to the OECD public procurement best practices. Notwithstanding, the adoption of the Guidelines institutionalized all the changes that IMSS had been doing so far and made them permanent. The adoption of the Guidelines could also set an example to other public institutions like Pemex or ISSSTE that have not improved their purchasing policies as much as IMSS.

But even with the adoption of the Guidelines, some of the problems within purchases were not solved. For example, one of the largest problems that officials were dealing with was un-fulfillment. Carmen Zepeda, Director for IMSS Management Unit[46], was particularly troubled: "even though purchases' consolidation has brought us many savings in terms of prices, un-fulfillment of contracts have not improved, in fact, they have increased in recent years. Un-fulfillment is particularly damaging as not only do we end up paying higher prices, but we also end up receiving fewer medicines and not in the time when we need them. Another important problem not attacked by the Guidelines is improving our purchasing efficiency. By that I mean having better requirements for what we need, buying what we promised to buy and then making sure that the medicines we purchased get to the patients that need them." Zepeda stated "Not everything that we buy ends up being used by our medical staff. This problem has to do with bad planning of requirements. Furthermore, not everything that we buy reaches patients as there is an important problem of shrinkage. Around 20% of what we purchase gets lost or stolen." Zepeda was implementing a new

[45] For a specific documentation on the implementation of the Guidelines by IMSS see "Evolución Acuerdo de Trabajo IMSS-OCDE-CFC" elaborated by the IMCO, December 2011

[46] At the time that the case was published, Ms. Zepeda was no longer Director for the IMSS Management Unit.

program to reduce shrinkage. In this program high cost medicines were labeled with patient´s name in the exact dosage that the patient needed them. This program had been implemented in two states and expenditures in medications under the program decreased from 36% of total expenditures to 2% of total expenditures. According to the IMSS, if the program were to be implemented across all delegations, IMSS could save an additional 10% and at the same time guarantee that patients receive the medicines they need.[47]

With regards to patented drugs, the requirements part was difficult to attack as many laboratories put pressure on doctors to prescribe medicines they produced. According to González Pier, IMSS CFO, "In the US when a medicine loses its patent it takes only 3 months for its price to drop. In Mexico that lag is of 2 years due to the time it takes Cofepris to allow new medications into the market! In summary, we need to do a ton of work analyzing what we buy, making sure that we buy financial-effective medicines and improving our planning so to have requirements based on profound analyses of what we consume at the same time of improving our inventory system." Gonzalez Pier was also concerned with the effects of consolidation on the competitive nature of the tenders. He said, "Consolidation in some markets, could, instead of increase competition, hinder it by eliminating from the market small or regional competitors that are not able to supply the whole contract. We have to analyze the nature and amount of competitors in each category of the goods and services that we buy to see if consolidation at a national level or multi-year contracts increases or reduces competitiveness in that particular market."

Additionally, not all of what IMSS promised to buy in the awarded contract was actually purchased. With regards to medication contracts, only 1.3% of contracts were purchased in its totality. In 55% of the contracts, 90% of items were actually bought and in 17% of the cases, only 80% of what was promised was purchased.[48] The IMSS also was a bad payer. It paid contracts with a 4 to 5 month lag and up to 5% of the amount of purchased medications were catalogued as payments due. Payments due varied across delegations and HSMUs and had been decreasing but still were an important amount. IMSS paid 40 to 60% lower prices than what the private sector paid for the same medication. As a result, some public procurement officials within IMSS expressed their concerns on the fact that the query to pay lower prices could cause some suppliers to agree to decrease prices but could also incentive them to un-fulfill contracts in the regions where it was most difficult or costly to distribute medications. If the distribution of medications was auctioned separately from the provision of them this problem could be solved –some officials thought. Also, they were worried that providers could agree in the first years to offer low dumping prices and then drive other competitors away from the market.

Another part of the process that was truly important for fostering competition was the elaboration of the bases of the tendering process. The bases described the type of tender, the degree of consolidation (national or by delegation and HSMU), if it was possible to split contracts, if it was possible to submit joint bids with other contestants, the criteria for awarding the contract, among many other things. If suppliers were able to infiltrate the creation of the bases, competition could be hindered as many competitors could be ruled out. So even if the Guidelines were followed thoroughly, an uncompetitive set of bases could foster bid rigging. Thorough and independent market studies were instrumental to decrease the possibility of bidders to infiltrate the tender process.

Karam´s last thoughts

Karam had been struggling on what his last actions before the next administration began would be. He wanted to make sure that the impact of his actions would be significant and visible to the public so that following administrations would follow in the path of continuous improvement of purchases practices. The purchasing cycle done under the Guidelines certainly showed positive results but it had also highlighted that some other actions were needed. He thought to himself:

[47] IMCO, "Evaluación del Acuerdo IMSS-OCDE-CFC", November 2011.

[48] IMCO, "Evaluación del Acuerdo IMSS-OCDE-CFC", November 2011, based on IMSS data.

I know that the adoption of the Guidelines does not solve all our public procurement problems. Nevertheless, the adoption certainly puts the IMSS in the forefront of best practices in terms of public purchases. Most importantly, I think, the adoption of the Guidelines institutionalizes all the changes that we have implemented in the past years. In that sense I am confident that following administrations in the IMSS will have a more transparent and efficient way of purchasing thus generating savings for the institution. The endorsement of the OECD in this whole process is also of the utmost importance for the institutionalization of a better way to buy. Knowing that the OECD will be closely following the way we purchase goods and services will be fundamental for the transparency and institutionalization of these best purchasing practices.

Exhibit 1 Mexico Map

Source: University of Texas Libraries, The University of Texas at Austin, www.lib.utexas.edu.

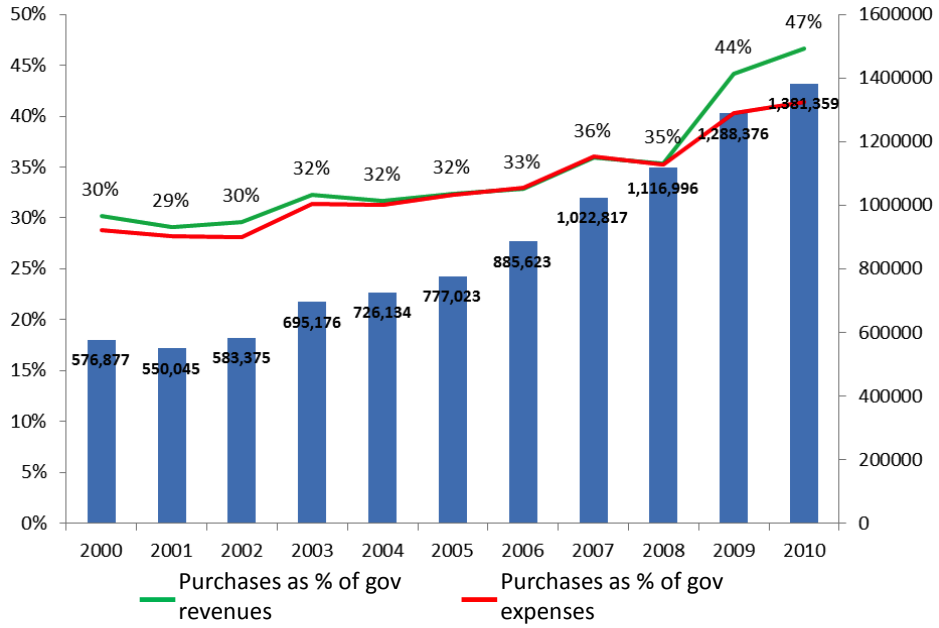
Exhibit 2 Mexico's socio and macroeconomic indicators

	2010	2011*
Population million [a]	112.5	113.8
Population growth (% change pa) [a]	1.1	1.2
% urban population [d]	76.8	
Recorded unemployment (%)[a]	5.4	5.5
GDP (bn US $) [a]	1,034.8	1,185.0
GDP (% real change pa) [a]	5.4	3.4
GDP per head (at PPP) [a]	16,305	16,960
Budget balance (% GDP) [a]	-2.9	-2.5
Public Debt (% GDP) [a]	36.9	37.3
Debt interest payments (% GDP) [a]	2.0	1.3
Consumer price inflation [a]	4.2	3.8
Labor productivity growth (%)[a]	4.3	1.8
Total factor productivity growth (%)[a]	3.8	1.4
Exchange rate (pesos per dollar av) [a]	12.6	12.5
Lending interest rate % [a]	5.3	5.0
Workers' remittances (bn US $) [a]	21.3	22.1
Gini coefficient [b]	51.6	
Population under US $1 per day % [c]	10	
Population under US $2 per day % [c]	26	
Share of income of lowest 20% [c]	3.8	
Share of income of top 20% [c]	59.1	
% of population below poverty line[c]	47.0	

* Economist Intelligence Unit estimates

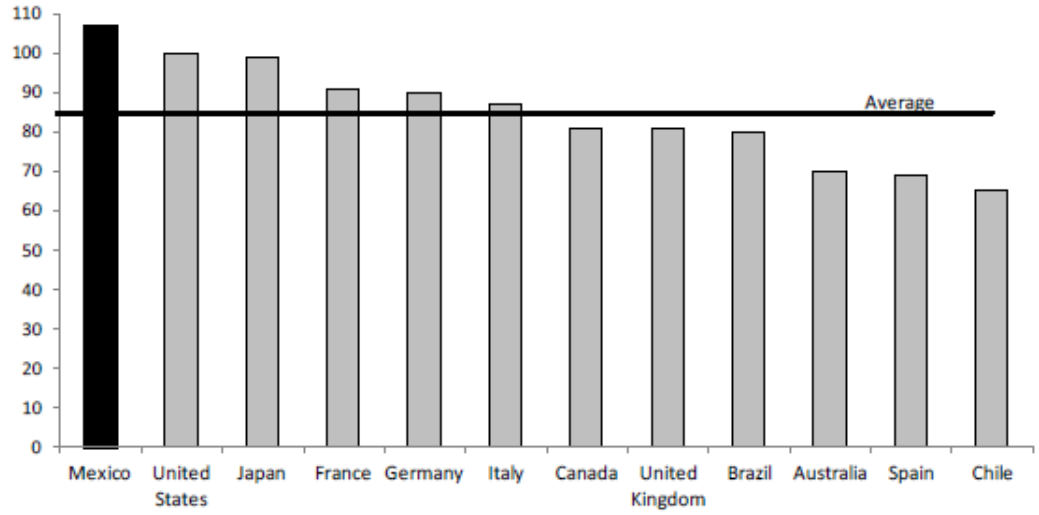
Source: a) Economist Intelligence Unit, www.eiu.com last viewed 24/10/2011, b) Data for 2006. Source: Coneval www.coneval.gob.mx last viewed 5/7/2010 c) Data for 2008. Source: World Bank Indicators, www.worldbank.org last viewed 5/7/2010, d) INEGI www.inegi.gob.mx last viewed 24/10/11.

Exhibit 3 Public Purchases (millions of 2010 Mexican pesos)



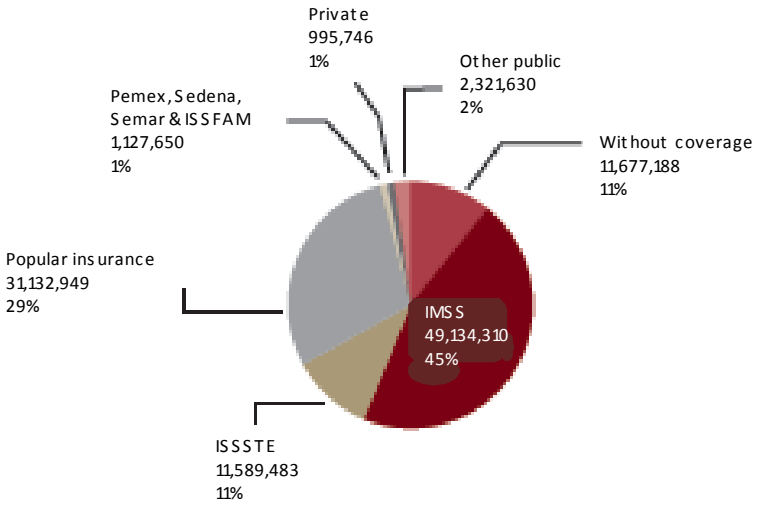
Source: Ministry of Finance, Unidad de Planeación Económica de la Hacienda Pública

Exhibit 4 Price indices for medicines (price to the public), 2005



Source: OECD Mexico Economic Survey 2011.

Exhibit 5 Mexican population according to type of health coverage



Source: The Mexican Institute of Social Security: Evolution, Challenges and Perspectives, Mexico 2010.

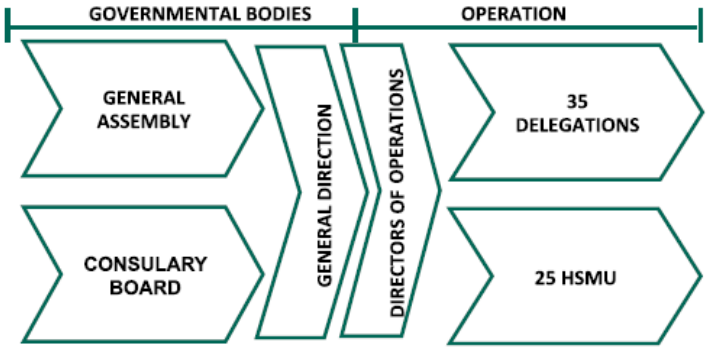
Exhibit 6 Services provided in the National Healthcare System (percentages 2007)

	Consultations				Discharges	Surgeries	Auxiliary Diagnostic Services		
	General	Speciality	Emergency	Dental			Laboratory Exams	Radiology	Others
IMSS[1/]	48.6	41.9	69.8	31.6	42.3	47.4	51.5	56.2	65.6
ISSSTE[2/]	7.4	15.8	3.9	8.9	7.1	7.5	8.0	8.2	11.8
SSA[3/]	40.5	30.7	18.3	53.3	45.6	40.4	33.0	26.5	18.2
Others[4/]	3.5	11.6	8.0	6.3	5.0	5.0	7.5	9.0	4.4

1/ Mexican Institute of Social Security, includes IMSS-Oportunidades.
2/ Institute for State Workers Insurance and Social Services.
3/ Secretariat of Health.
4/ University Hospitals, Mexican Petroleum (PEMEX), Secretariat of the Navy (SEMAR), and State Services.
Source: General Direction for Health Information. Secretariat of Health, Bulletin of Statistical Information No. 27, vol. III. 2007.

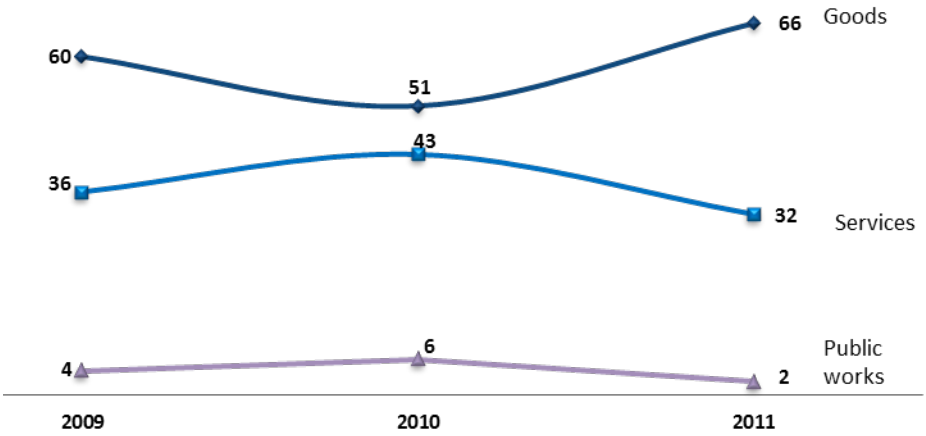
Source: The Mexican Institute of Social Security: Evolution, Challenges and Perspectives, Mexico 2010.

Exhibit 7 IMSS Operational Structure



Source: The Mexican Institute of Social Security: Evolution, Challenges and Perspectives, Mexico 2010.

Exhibit 8 IMSS purchases by item (percentage of total)



Source: IMSS, transparency portal, http://compras.imss.gob.mx/?P=imsscomprotipoprod

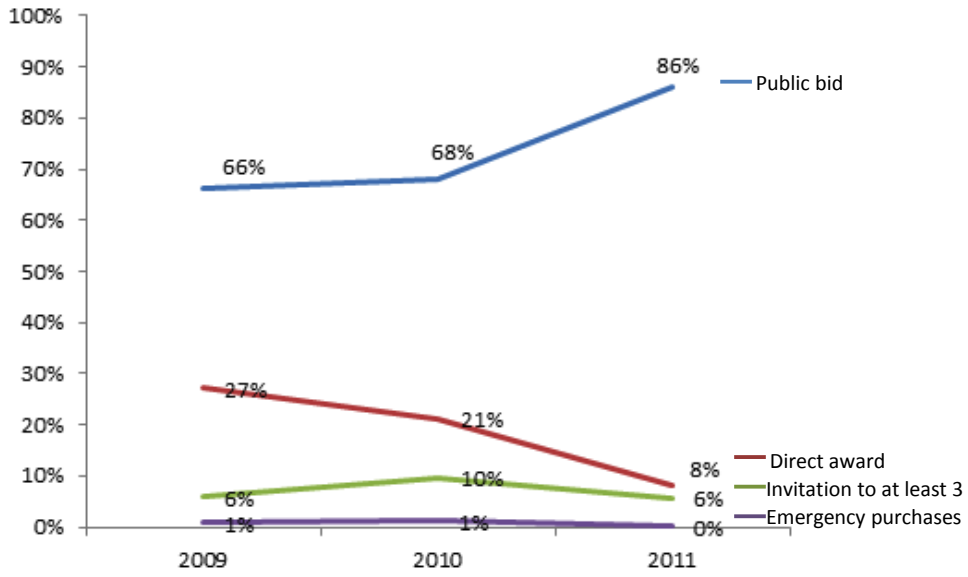
Exhibit 9 IMSS 2011 purchases by item (millions of dollars)

Total Purchases	**5,285**	**100%**	
Goods	**3,479**	**66%**	
Therapeutic goods	3,181		91%
Non-therapeutic goods	251		7%
Equipment	36		1%
Furniture	7		0%
Other	3		0%
Services	**1,688**	**32%**	
Integral services	442		26%
General services [a/]	394		23%
Maintenance	242		14%
Other	562		33%
Social communication	43		3%
Oportunidades	4		0%
Emergency	1		0%
Public Works	118	**2%**	

a/ General services such as water, electricity, telephone, etc.

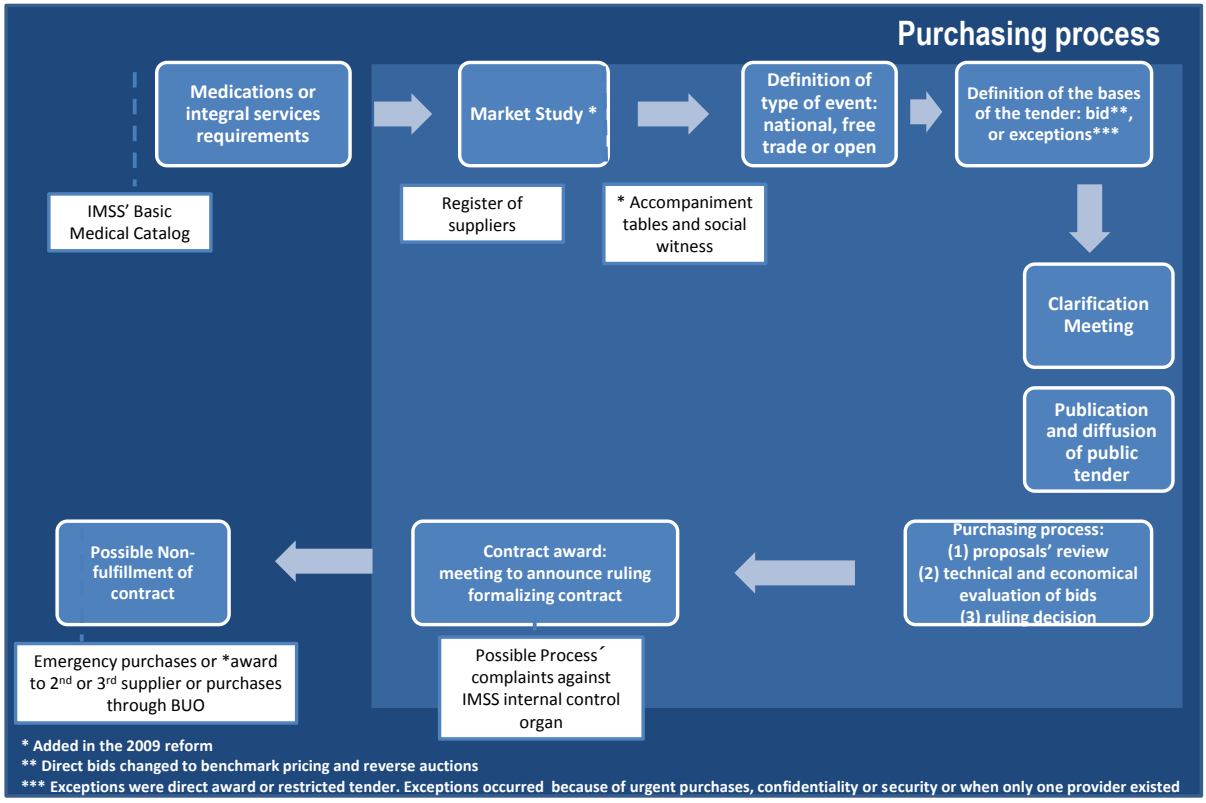
Source: IMSS, transparency portal, http://compras.imss.gob.mx/?P=imsscomprotipoprod

Exhibit 10 Method for public procurement



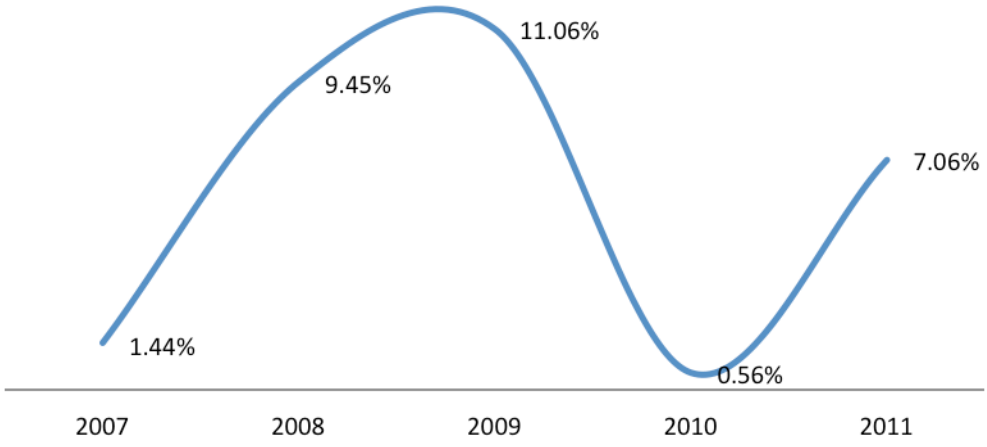
Source: IMSS, acquisitions portal

Exhibit 11 IMSS Purchasing Process



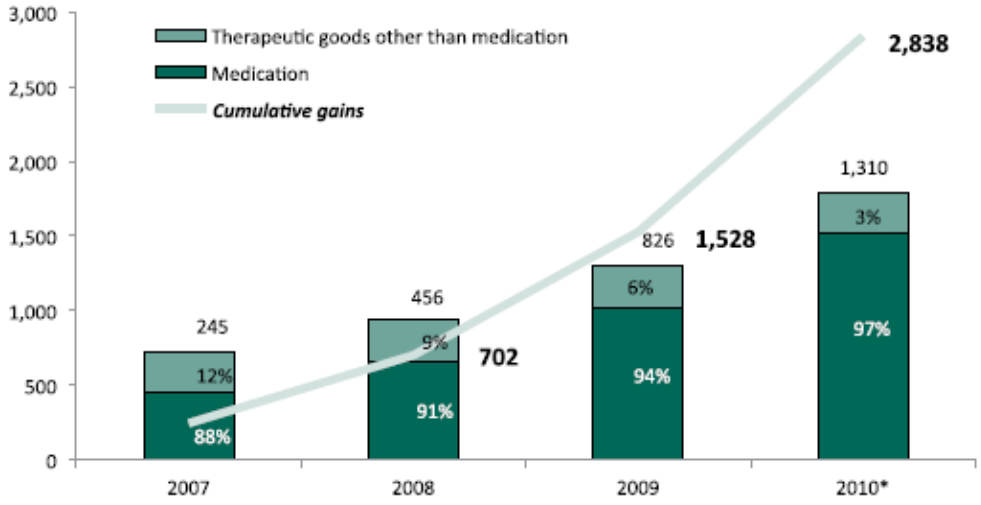
Source: IMCO based on interviews.

Exhibit 12 Breach of purchases' contracts
(Number of medications not provided as a % of total medications purchased.)



Source: IMCO based on IMSS data

Exhibit 13 Efficiency gains in the IMSS procurement process (millions of USD, base reference 2006)



Source: The Institute of Social Security: Evolution, Challenges and Perspectives, IMSS, 2010.

Exhibit 14 Certificate of Independent Bid Determination (CIBD)

Certificate of Independent Price Determination (April 1985)

(United States)

(a) The offeror certifies that—

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to—

(i) Those prices;

(ii) The intention to submit an offer; or

(iii) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory—

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this provision; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this provision _____ [insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) of this provision have not participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies paragraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

_____

(Printed Name and Signature of Authorized Agent of Bidder)

_____ _____

(Position Title) (Date)

Source: OECD, Fighting bid rigging in public procurement in Mexico: An OECD Secretariat´s report into the current legislation and practices governing IMSS´ procurement, November 2011.