



Foreign Exchange Intervention: Implications for stabilization policy

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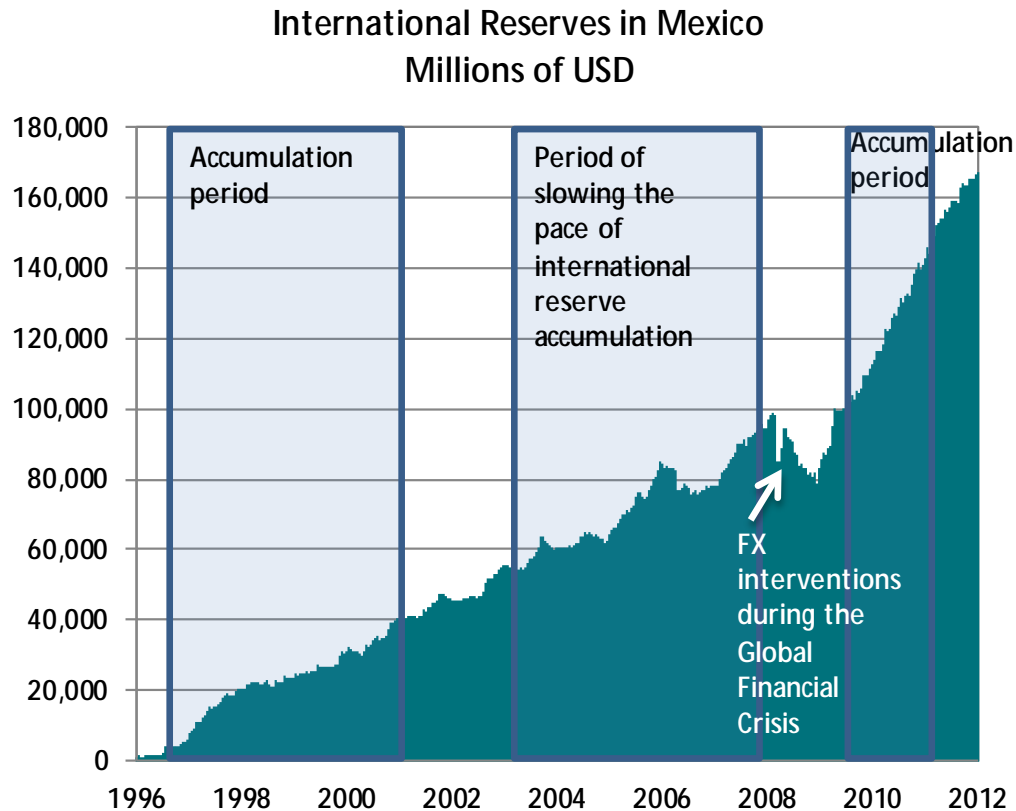
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International Reserves

- The accumulation of international reserves by Banco de México has gone through several phases since the adoption of a floating regime.



Source: Banco de México.

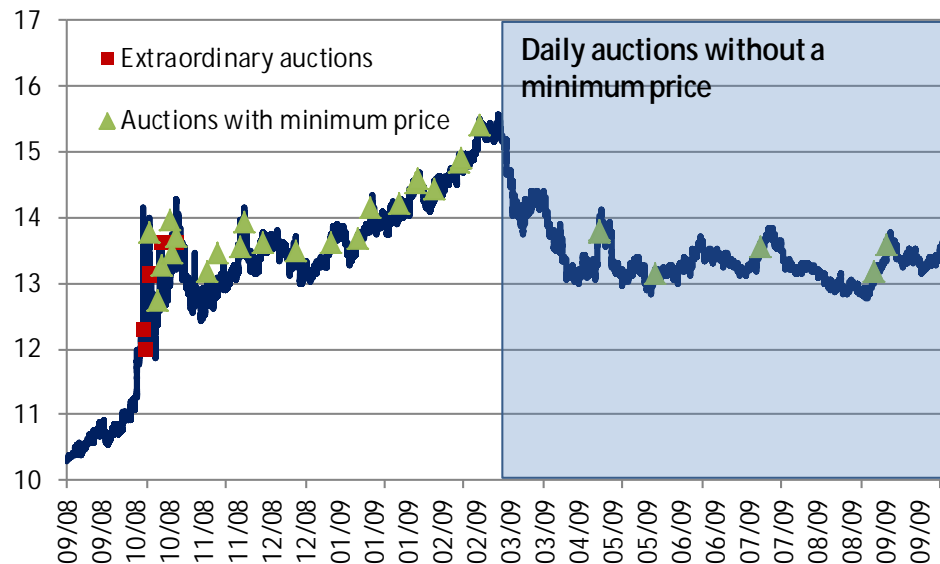
International Reserves and Financial Stability

- In theory, with a flexible exchange rate the use of international reserves is limited. However, central banks use them to reduce FX volatility or to diminish vulnerabilities to external shocks.
- This has been the case of Mexico where the central bank (instructed by the FX Commission) has sold dollars under certain circumstances to prevent FX volatility. However, Banco de México has never set a predetermined level for the exchange rate.
- On the other hand, Banco de México has accumulated reserves buying dollars through a put options mechanism in two after-crisis periods (1996-2001 and 2010-2011).
- The main objective of Banco de México, when it has accumulated international reserves, has been precautionary. In other words, it has tried to have an insurance against financial crises.

FX interventions and Financial Stability

- International Reserves have been used by Banco de México to intervene in the FX market in order to provide liquidity in periods of stress.
- That is how the Central Bank has contributed to the reduction of financial and macroeconomic instability.

Foreign exchange interventions during the Financial Crisis 2008-2009
FX rate Mexican pesos per USD



Source: Reuters and Banco de México.

Monetary Policy Objectives and FX Interventions

- The problem of FX interventions for inflation targeting is that the main commitment of the central bank is with price stability and not with FX stability.
- Therefore, if the market finds out that a central bank is defending a specific exchange rate level, this could have negative effects in the credibility over its main mandate. In the extreme, aiming at a certain level of exchange rate undervaluation will undermine inflation targets.
- That is why interventions should be based on:
 - Transparency with clear rules.
 - Liquidity provision under financial stress periods (for temporary shocks).
 - Preserving inflation targeting.

Monetary Policy Objectives and FX Interventions (2)

- Banco de México has based its FX intervention mechanisms on the previously mentioned factors.

Banco de México's Foreign Exchange Market Operations

Date	Mechanism	Buy/Sell	Amount (Billions of USD)
August 1996 - June 2001	USD purchases through the put options mechanism	Buy	12.25
February 1997 - June 2001	USD auctions with a minimum price	Sell	-1.95
May 2003 - July 2008	Mechanism to slow the pace of international reserve accumulation	Sell	-30.08
October 2008	Extraordinary auctions of USD	Sell	-11.00
October 2008 - April 2010	USD auctions with a minimum price	Sell	-8.34
February 2009	Direct interventions	Sell	-1.84
March 2009 - September 2009	USD auctions without a minimum price	Sell	-10.25
February 2010 - November 2011	USD purchases through the put options mechanism	Buy	9.08
November 2011 - To date	USD auctions with a minimum price	Sell	-0.65

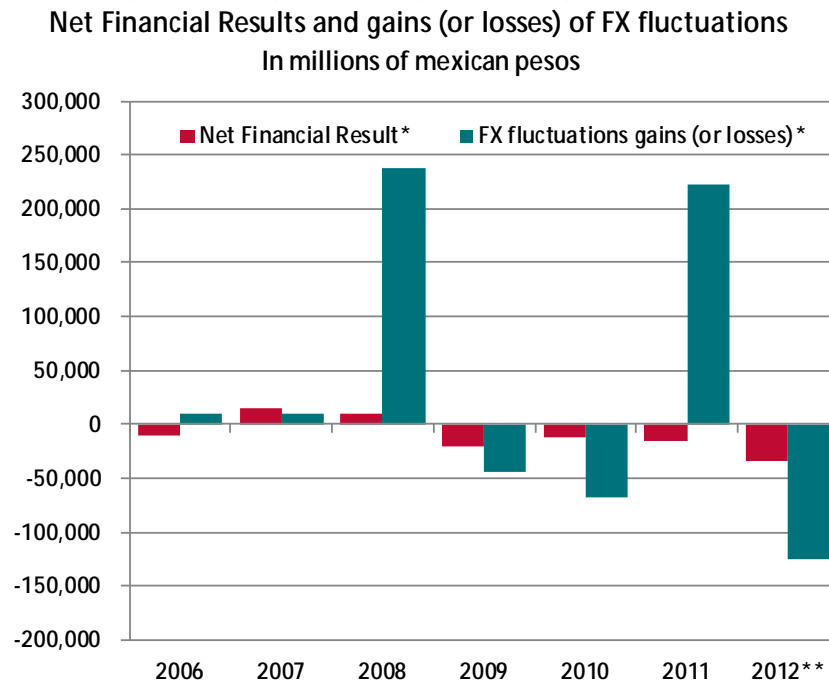
Source: Banco de México.

Sterilized FX Interventions and “quasi-fiscal” costs

- To avoid a change in the money supply, FX interventions are typically sterilized. However, one of the problems of sterilization is the emergence of “quasi-fiscal” costs for central banks (i.e. cost of carry of international reserves).
- The more international reserves the central bank sterilizes, *ceteris paribus*, the higher the “quasi-fiscal” cost will be.
- These costs depend on the spread between domestic and external rates and on the institutional framework of each central bank (accounting and profit-sharing agreements).
- Moreover, a large stock of international reserves may also give rise to large unrealized profits or losses, depending on the movements of the exchange rate.
- Credibility costs could arise and the central bank may endanger its independence.

The cost of the FX Policy

- The spread between Mexican and US rates is the main structural reason why net financial results will be negative most of the times.
- Fluctuations in the exchange rate are also relevant to determine the costs and the benefits of international reserves.

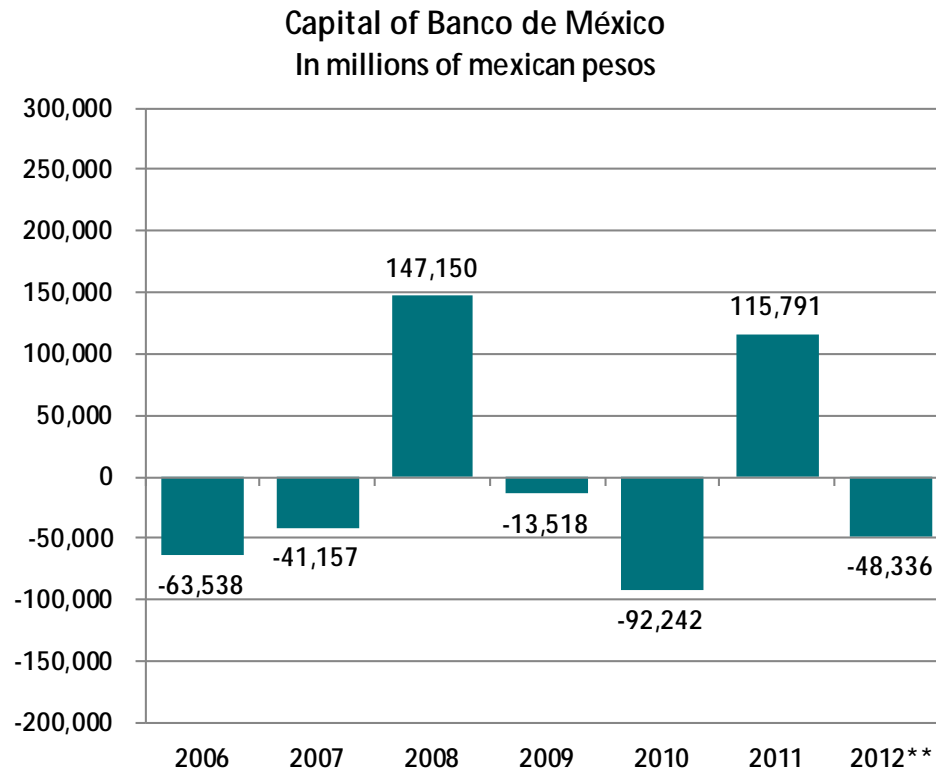


** To September 2012.

Source: Banco de México.

The cost of the FX Policy (2)

- In the end, international reserves may lead to a negative capital for the central bank.



** To September 2012.

Source: Banco de México.

Challenges and risks of FX intervention

- Define how much International Reserves to accumulate.
 - Self insurance, risk pooling at regional and multilateral levels.
 - This has not been an easy task and it has change depending on market conditions.
- Define when to intervene.
 - Lean against the wind? Sudden stops? Pricking bubbles?
 - Banco de México opts to provide liquidity to the market only in stress periods, without interfering with the normal functioning of the market, and without determining a specified level for the exchange rate.
- Preserve market conditions (market friendliness).
 - Banco de México opts to preserve correct price discovery and adequate market conditions in FX market (not discouraging private sector participation).

Challenges and risks of FX intervention (2)

- Define the appropriate degree of transparency in FX interventions.
 - Surprise the market?
 - Banco de Mexico opts for interventions based on rules and transparent schemes, with the goal of preserving credibility on a flexible exchange rate.
 - All the information regarding previous interventions is publicly available.
- Define how to reduce quasi-fiscal costs of sterilization.
 - Balancing the costs and benefits from international reserves.
 - Appropriate profit-sharing and capitalization rules.
- Avoid moral hazard.
 - How much FX risk should be transferred to the private sector?
 - Is FX intervention fostering financial stability?

Appendix

Foreign Exchange Intervention Mechanisms by the Banco de México

Put options mechanism

- Dollar purchases through the put options mechanism (August 1996-June 2001 and February 2010 – November 2011).
- The most important operational details of the last used version of are the following:
 - On the last business day of each month, Banco de México auctioned to banks the right to sell dollars back to the central bank (put options). These rights could be exercised partially or entirely, within the month following the month of the auction.
 - The auction amount was set at USD 600 million per month.
 - Option holders could sell dollars to the central bank only if the exercise price (the exchange rate computed for the preceding day or Fix) was below the last 20-day moving average prior to the exercise date.
 - The results of each auction were published on Banco de México's website. Moreover, the results of the exercise of these auctions were also published in Banco de Mexico's website.

USD auctions with a minimum price

- USD auctions with a minimum price (February 1997-June 2001, October 2008-April 2010, and November 2011- to date).
- Operational details of how this auction mechanism has been operating since November 2011:
 - It is a rule-based mechanism.
 - The USD auction is carried out in three different time slots: from 9:00 a.m. to 9:05 a.m. for the first auction; from 12.00.00 a.m. to 12.05.00 a.m. for the second auction; and, from 3.00.00 p.m. to 3.05.00 p.m. for the third auction.
 - If the auctions of the preceding business day do not result in any allotment, the minimum price for the dollar auction will be set at 1.02 times the Mexican peso, as determined by the FIX of the preceding business day.
 - If the auctions of the preceding business day result in an allotment, the minimum price for the dollar auction will be set at 1.02 times the weighted average price of the previous business day's allotment.
 - The minimum bid price will always be the same for the three auctions.
 - Any daily amount not allotted is not cumulative for the next day.
 - The sum of the allotted amounts of the three auctions must not surpass USD 400 million.
 - The results of each auction are published on Banco de México's website.

USD auctions without a minimum price

- USD auctions without minimum price (March 2009-September 2009). On March 5, 2009, the FX Commission in order to promote orderly conditions in the foreign exchange market and in order to implement a mechanism to guarantee that a significant portion of its projected international reserve accumulation was sold in the foreign exchange market, announced a mechanism to auction USD on a daily basis without a minimum price. The FX Commission suspended this mechanism in September 2009.
- The following summarizes the most important operational details of this mechanism:
 - It is a rule-based mechanism.
 - The auction was carried out at 9:10 am.
 - The daily amount auctioned was 100 million USD (On May 29, 2009 the amount was reduced to 50 millions).
 - The results of each auction were published on Banco de México's website.

Extraordinary USD auctions

- Extraordinary USD auctions (8, 9, 10, 16 and 23 of October 2008): On October 2008 the FX Commission implemented several extraordinary auctions of USD due to the prevailing uncertainty and lack of liquidity in the foreign exchange market.
- Operational details of this auctions:
 - The auctions were carried out without any previous notice (it is not a rule-based mechanism).
 - The amounts and the time of the auctions were announced 15 minutes before the auction.
 - The results of each auction were published on Banco de México's website.

Direct sales of USD

- Direct sales of USD (10 of September 1998, 4, 5, 6, 20, 23 and 27 of February 2009): Since December 1994, the FX Commission has instructed Banco de México to carry out direct operations in the market only during extraordinary circumstances that could put financial stability at risk.
- The following summarizes the most important details of the last direct sales of USD:
 - The times and the amounts of the sales were at the discretion of the FX Commission (it is not a rule-based mechanism).
 - The auctions were executed via telephone or via voice brokers.
 - The results of the sales were reflected in the weekly balances of Banco de México, published on February 10 and 24, and on March 3. However, the amounts were not individually disclosed.

Auctions of USD to slow the pace of international reserve accumulation

- Auctions to slow the pace of international reserve accumulation (May 2003-July 2008): On March 2003 the FX Commission announced the establishment of an automatic mechanism to slow the pace of international reserve accumulation.
- The following summarizes the most important operational details of this mechanism:
 - It is a rule-based mechanism.
 - The auctions were carried out at 9:30 am.
 - The amount of dollars offered was announced through a quarterly press release. The total amount to be offered in each period was determined by the accumulation of reserves during previous quarters, net of sales carried out through the same mechanism.
 - The results of each auction were published on Banco de México's website.



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