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Economics Group

Special Commentary

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Mexican Central Bank Divorces the Fed

Executive Summary

Mexico's central bank (Banxico) surprised markets on February 17 when it announced an unscheduled 50 bps increase in its policy interest rate target (Figure 1). This move marked a stark divergence from other recent Banxico policy decisions which had previously been highly dependent on antecedent policy moves from the U.S. Federal Reserve. Policymakers cited the persistent depreciation of the Mexican peso as the primary reason for the move, noting that further downward pressure could cause inflation expectations to become unanchored (Figure 2).

Interestingly, inflation had actually been slowing throughout much of 2015 even as the peso continued to lose value, likely a reflection of soft domestic demand. However, inflation spiked in the first two months of the year, and our econometric results suggest that the lagged impact of past peso depreciation can have a more significant impact on inflation than depreciation in the current period. Should inflation continue to rise faster than Banxico policymakers expect, they may be forced to hike rates at a more brisk pace than markets are currently pricing in.

Intertwined Relationship = Intertwined Policies

The Mexican and U.S. economies have strong macroeconomic linkages.

The U.S. economy and the Mexican economy have been, for decades, highly intertwined. In fact, many observers maintain that the North American Free Trade Agreement (NAFTA) was just the culmination, not the beginning, of the close relationship between the two countries. As of 2014, Mexico sent about 80 percent of its exports to the United States, while roughly half of its imports arrived from its neighbor to the north. These strong linkages have important consequences for the macroeconomic environment in Mexico and thus the country's monetary policy.

Figure 1

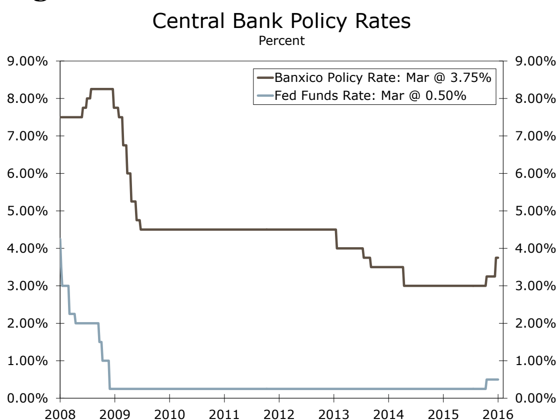
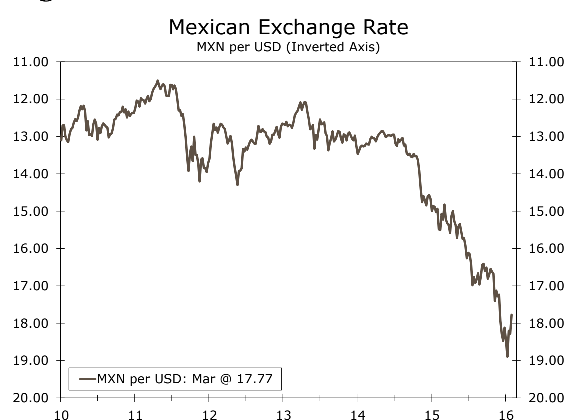


Figure 2



Source: Bloomberg LP and Wells Fargo Securities, LLC

One of the consequences of this relationship is that Mexico's monetary policy has been highly dependent on the stance of monetary policy being conducted north of the border. This does not necessarily mean that every time the Fed moves, Banxico follows suit. Instead, monetary policy

decisions in the United States are likely taken into account by Banxico policymakers as they mull their own policy decisions. Indeed, Banxico's decision last year to hold its monetary policy meetings a day after Fed meetings was a fairly explicit signal that the two central banks' policies would likely closely follow one another.

The dollar/peso exchange rate has historically had an important effect on Mexican inflation.

Another consequence of this relationship is that changes in the exchange value of the Mexican peso vis-à-vis the U.S. dollar have historically had a significant impact on inflation in Mexico. The most noteworthy example of this came in 1994 during the Tequila Crisis when the Mexican government allowed the peso to float freely. In the ensuing financial crisis, the peso fell by more than half against the greenback, causing inflation to soar from 7 percent to over 50 percent in a matter of months.[1]

Yet, even as the peso lost about 30 percent of its value over the past year and a half, CPI inflation actually trended downward throughout much of 2015, and the 2.7 percent annual inflation rate recorded last year was the lowest in decades (Figure 3). Has this exchange rate/inflation relationship broken down?

Inflation & FX Not Separated, Just on Hiatus

A number of explanations have been put forth in an attempt to explain the apparent disconnect between inflation and the value of the Mexican peso. Chief among these explanations is the fact that domestic demand growth has clearly weakened in recent years. Real private consumption growth has averaged just 2.4 percent per annum since 2013, well below the roughly 4 percent average pace registered during the 2003-2007 period. Meanwhile, fixed investment spending has risen at a meager average annual pace of 1.8 percent since 2013, a far cry from the 6 percent average rate seen from 2003-2007. Thus, even as the depreciation of the peso has exerted upward pressure on prices via the cost side of the equation, weakness in economic activity has alleviated pressure on prices via the demand side.

Figure 3

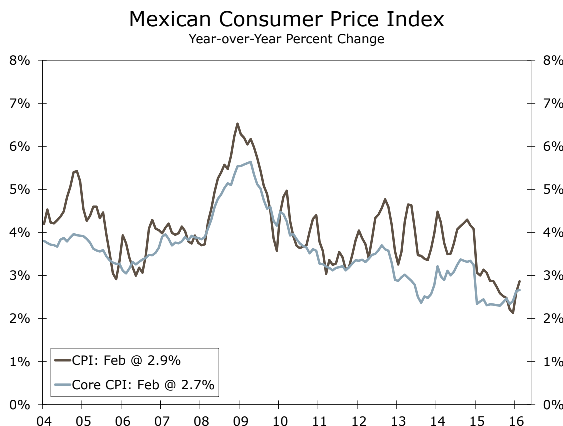


Figure 4

Source: Bloomberg LP, IHS Global Insight and Wells Fargo Securities, LLC

Weak demand and commodity prices have kept a lid on inflation.

Headline CPI inflation was also held back by broad declines in commodity prices, including prices for agricultural commodities, while a move by the Mexican government to end monthly gasoline price increases also suppressed headline inflation. That said, the slowdown in the core rate of inflation suggests the foreign exchange (FX) passthrough to inflation did weaken in recent years.

However, inflation in Mexico has risen sharply over the past two months. The headline rate of CPI inflation jumped 0.8 percentage points to 2.9 percent between December 2015 and February 2016, and the core rate has also leapt higher after remaining more or less flat during 2015. The upward move clearly did not go unnoticed by Banxico policymakers, as they acknowledged in their February 17 statement that the likelihood of inflation expectations becoming unanchored had increased. Thus, while inflation lay dormant for more than a year even as the peso continued

[1] **Whitt, J. A. (Jan. 1996). "The Mexican Peso Crisis."** ***Federal Reserve Bank of Atlanta Economic Review.***

to move lower, it appears policymakers have become concerned that FX inflation passthrough is finally coming home to roost.

Inflation South of the Border: Different Strokes

In order to quantify the effect of currency depreciation in Mexico on future domestic inflation, we conducted a simple regression analysis. As a means of comparison, we also conducted the same analysis on the United States. For both countries, we used headline CPI inflation as the dependent variable and the nominal effective (trade-weighted) exchange rate (NEER) as the independent variable.[2] Our econometric results suggest that currency movements are a key determinant of CPI inflation in both countries, but the extent of the effect varies greatly between countries.

Table 1

Regression on CPI Inflation (Mexico)		
	Coefficient	P-Value
NEER	-0.04	0.00
NEER (1M Lag)	-0.07	0.00
NEER (2M Lag)	-0.07	0.00
NEER (3M Lag)	-0.09	0.00
NEER (4M Lag)	-0.05	0.00
NEER (5M Lag)	-0.03	0.00
NEER (6M Lag)	-0.04	0.00
Adj. R-Squared	0.80	n/a

Regression on CPI Inflation (United States)		
	Coefficient	P-Value
NEER	-0.04	0.00
NEER (1M Lag)	-0.07	0.00
Adj. R-Squared	0.25	n/a

Source: Wells Fargo Securities, LLC

While changes in the exchange rate have a statistically significant effect on changes in headline CPI inflation in the United States, we found that this effect is relatively weak. Exchange rate movements seem to affect U.S. CPI inflation concurrently as well as one month out, but the adjusted R-squared implies that changes in the exchange rate explain only about 25 percent of the changes in the consumer price index (Table 1).

However, the exchange rate-inflation relationship in Mexico is decidedly different, as exchange rate movements have a much more significant effect on changes in Mexican consumer price inflation. According to our analysis, the adjusted R-squared implies that about 80 percent of the changes in CPI inflation can be explained by the movements of the trade weighted exchange rate.

The lagged effects of peso deprecation on Mexican inflation are significant.

Furthermore, while the U.S. exchange rate affects inflation only in the current period and one period prior, exchange rate movements in Mexico linger for much longer. In particular, the coefficient is statistically significant on the exchange rate as far back as six months and lagged values generally have higher coefficients than values in the current period. In other words, the cumulative effects of such movements can have a marked impact on future CPI inflation in Mexico, and these values tend to compound as depreciation continues. In our view, this finding coincides with Banxico's apparent concern that further peso declines would increase the risk of inflation expectations coming unanchored.

Conclusion

For many months, markets had been wondering why Mexican consumer prices were not reacting to the significant depreciation of the Mexican peso and were trying to figure out if "this time was different." Now, it will be a battle against potentially unsettled inflation expectations, with the risk that the Mexican central bank may already be behind the curve. Policymakers were careful to note in their statement that the surprise rate hike was not the beginning of a tightening cycle, but if inflation continues to rise ahead of central bank expectations, Banxico may be forced to raise rates faster than markets, as well as its own policymakers, currently expect.

[2] The U.S. dollar/peso exchange rate has a 53 percent weighting in Mexico's NEER, suggesting it is an important determinant of the overall NEER. Mexico's NEER has declined 24 percent since mid-2014, while the value of the peso against the greenback has fallen 25 percent over that same time period.

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