

Mexican Peso: Catching up to a crude reality

- We establish a year-end 2017 USD/MXN forecast of 19.80 per dollar following our new December 2016 estimate of 18.50, from 17.60, along an upward revision for the next twelve months
- Even though the peso is an attractive hedging vehicle, this factor alone would only help explain its short-term volatility, not its medium-term level
- Simple models based on the peso's real equilibrium exchange rate suggest a deeply undervalued currency. Nevertheless, these do not take into account recent structural changes, particularly in the oil sector
- Among them, we highlight: (1) Technological advances in production methods, resulting in low-for-long crude-oil prices; (2) Mexico's lower oil production and higher gasoline imports; and (3) the energy reform
- The double whammy of low crude-oil prices and falling production suggests continued weakness for the country's current account balance at least until next year. In our view, these will outweigh any positive impact of the energy reform in the short-term, keeping the MXN pressured into 2017
- We propose a model that takes into account these factors which suggests the MXN is currently overvalued by 1.6%. We believe the peso needs to fall further in 2017 given the likely prospects of persistent headwinds for the oil sector and to help correcting a wider imbalance in external accounts
- Mexico's policies leaning towards macro stability and the approved structural reform agenda suggests a stronger and more stable peso in the longer-term...
- Nevertheless, we maintain our short-, and medium-term bearish outlook for the peso, looking for opportunities to engage again in directional USD longs

August 29, 2016

www.banorte.com
www.ixc.com.mx

Juan Carlos Alderete, CFA
FX Strategist
juan.alderete.macal@banorte.com

Alejandro Padilla
Head Strategist – Fixed-Income and FX
alejandro.padilla@banorte.com

Santiago Leal Singer
Fixed-Income and FX Analyst
santiago.leal@banorte.com

Gabriel Casillas
Chief Economist and Head of Research
gabriel.casillas@banorte.com

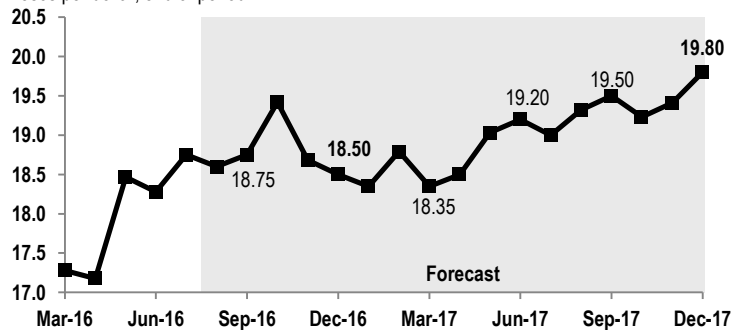
Document for distribution among public

A risky *trifecta*. The Mexican peso has been in a relatively strong footing this month with the fifth and second highest return among EM and major currencies, respectively, going from 18.75 to 18.55 per dollar (+1.1%). Horse racing fans know too well the *trifecta*, in which the bettor wins big by predicting which horses will finish first, second, and third in exact order. The term can also refer to a situation in which three factors come together at the same time, an idea that also applies to the peso's recent drivers. These are: (1) The market's interpretation of a more dovish Fed, particularly after the latest minutes. We do not share this reading and continue expecting a 25bp rate hike in December, with some members suggesting a hike this year remains very much in the table; (2) crude-oil price recovery, with WTI gaining 14.5% MTD as of August 26 in part on expectations of a production freeze agreement in September. Nevertheless, greater expected supply from Iraq and Nigeria as well as how incentives realigned in Saudi Arabia to switch to non-oil sources of growth, do not support this outlook; and (3) Trump losing ground significantly in voter preferences, at its lowest according to several polls but with high likelihood of at least some rebound as we approach Election Day. Extending the analogy, the *trifecta* seem to us an unattractive proposition, believing that there is significant downside for the peso and risky assets as we see these factors have aligned in a quite transitory fashion. Without confidence to accept this wager, we see renewed pressures for the currency for the rest of the year.

Bearish on MXN into 2017. Notwithstanding these short-term factors, in this note we focus on the mid-term outlook for the Mexican peso, arguing that its accelerated fall since 2014 has mostly been fundamentally-driven. Following the release of our *3Q Outlook* [<pdf>](#) where we revised upward our USD/MXN year-end forecast to 18.50, from 17.60, along the path for the next twelve months, we establish a year-end 2017 estimate of 19.80 (see chart below), significantly above Banxico's survey consensus at 18.20. In our last major revision (see: "*Mexican peso: Handle with care*", October 5, 2015, [<pdf>](#)) we were much more cautious than the market about the peso, an outlook maintained for 2017. Most of the catalysts at the time are still very much in play (*e.g.* uncertainty about the Fed, risks for China and EM, less local policy flexibility and muted GDP growth). Although very important, we propose a model that takes into account some developments in global and local oil markets and its effects on external accounts to gauge the peso's valuation and response to recent structural changes. We conclude that: (1) Currently, the peso is slightly overvalued against the USD, as opposed to simple REER models that signal a deep undervaluation; and (2) in our base-case scenario of a further fall in local oil production, low oil prices and fiscal challenges for Pemex, the peso will keep depreciating in 2017 and needs to do so to help correct for a wider current account deficit (CAD). In terms of strategy, we remain peso bears for the rest of the year and into 2017, looking for attractive opportunities for new directional dollar longs.

USD/MXN forecasts

Pesos per dollar, end of period

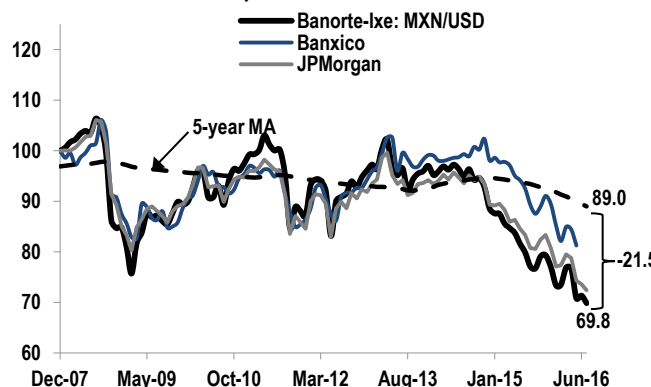


Source: Banorte-Ixe

Standard REER estimates signal a strongly undervalued peso. Mainstream theory states that inflation differentials are the main driver of currencies and that real exchange-rate misalignments tend to revert to the mean, at least in the long term. These indexes suggest an increasingly undervalued peso since mid-2014, ranging from 13.5%-21.5% to their five-year average by the end of July (chart below, left). Among other factors, this has led several market watchers to expect a strong MXN rebound. Assuming instant reversion to the mean via nominal prices, a simple, fair-value estimate for the peso by July-end would oscillate between 14.70-16.00, clearly not the case so far and with an ever-wider gap since 4Q14 (chart below, right).

Mexican peso real exchange rate indexes*

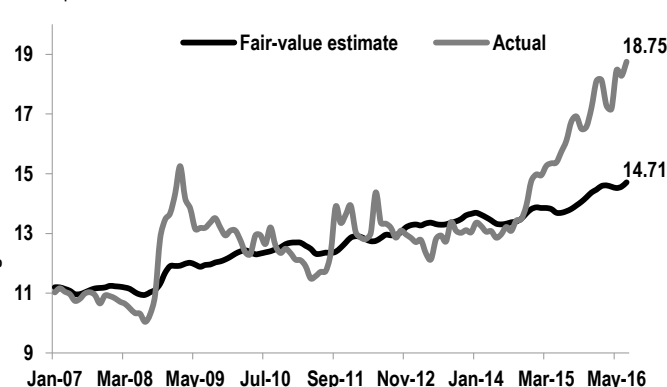
Index 100= Dec-31-07, monthly basis



* Increase means real MXN appreciation. Banxico's index is a weighted-average of 111 countries. JPM's index weights include US (47%), Euro area (17.2%), China (16.7%), Japan (4.1%) and Latam (3.3%), among others
Source: Banxico, JPM, Bloomberg and Banorte-Ixe

USD/MXN fair-value based on RER index* vs. actual level

Pesos per dollar



* Using our USD/MXN real index and assuming "instant" reversion to the 5-year MA

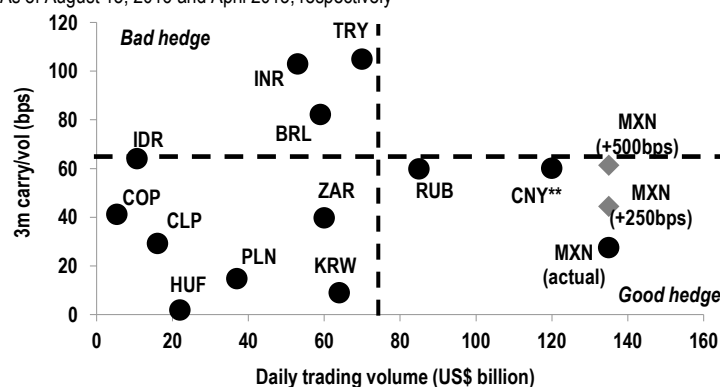
Source: Bloomberg and Banorte-Ixe

Static estimates are misleading as they ignore structural changes. One of the criticisms to this methodology is its static nature, with mean-reversion implicitly assuming unchanged circumstances. We highlight three main *structural* changes in the post-crisis period: (1) Technological advances in oil production methods —e.g. shale in the US— leading to a permanent, outward shift in the global supply curve pressuring prices; (2) Weaker-than-expected prospects for Mexico's current account deficit (CAD) due to lower oil production and higher gasoline imports; and (3) Mexico's strong reform agenda, specifically in energy, albeit most likely with a lower than estimated positive effect in a short-, and even medium-term horizon. As a result, we believe the REER measure described above is misleading to gauge the peso's valuation misalignment as the flexible exchange rate regime is one of the main ways of adjustment to withstand structural shocks to the economy.

The use of MXN as a hedge is unlikely to explain all of the currency's weakening trend. Market participants (including ourselves) have argued that one of the main reasons behind the peso's underperformance in periods of market stress is its use as a hedge to portfolio exposures in other, less-liquid EM. Compelling evidence of the convenience of using MXN for this purpose comes at least from two facts: (1) A relatively low-cost of borrowing/shorting; and (2) its high liquidity. In the former, the 3m implied yield (borrowing cost) of MXN is about 4.1% (annualized); EM currencies with lower costs include HUF (0.2%), KRW (0.9%), and PLN (1.5%). Nevertheless, their daily trading volume is significantly below the peso. Passing to the latter, other highly-liquid currencies such as ZAR, TRY, and RUB (the former two the only ones that also trade 24-hours a day), are far more expensive at 7.9%, 8.6%, and 9.8%, respectively. The peso is *both* low-cost and highly liquid, with only CNY as a worthy competitor under these criteria; but contrary to MXN, the yuan is a managed peg with heavy capital controls. One of the options to address this vulnerability would be for Banxico to increase the relative cost of borrowing, but the FX is not part of its mandate. Based on 3-month volatility adjusted carry (see chart below), we estimate the central bank would need to hike by at least 250bps to make it meaningfully more expensive (broadly matching ZAR in vol-adjusted carry terms at 40bps, and not even considering the ample differences in liquidity), which we see as highly unlikely in our forecast horizon.

3-month carry/vol* and average daily trading volume of EM currencies

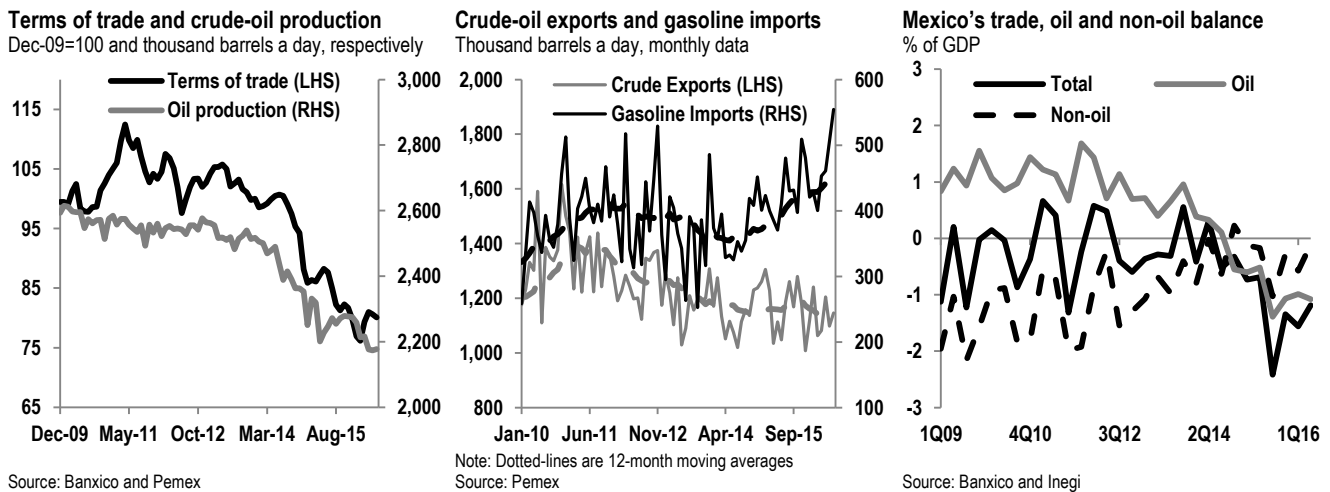
As of August 15, 2016 and April 2013, respectively



* Spread between the 3m local interest rate to the US (in local currency) divided by the
Source: Banorte-ixe with data from Bloomberg and BIS

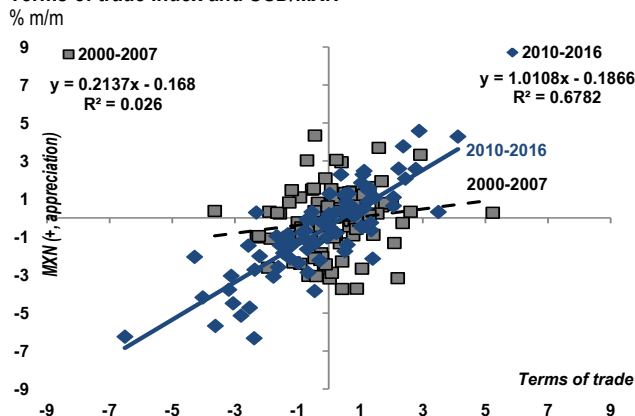
Assuming this is the only and/or most relevant driver of peso weakness, we should expect that the unwinding of these hedges reverts back most of the losses when risk aversion normalizes, a point also stressed by the Governor of Banco de México, Agustín Carstens. If that were the case it would mostly explain the currency's short-term volatility, not its medium-term level. Hence, it is our take that a more fundamentally-based driver is behind the currency's accumulated fall in the post crisis-period.

A weak oil balance at least until 2017... The structural changes mentioned above are akin to a double whammy to Mexico's oil balance. The chart below on the left shows Mexico's terms of trade and oil production. As is well known, global crude-oil prices and Mexico's basket (highly correlated with terms of trade) began their downfall around June 2014. We continue seeing a prolonged period of low prices as the market imbalance persists. Monthly crude-oil production started accelerating lower around February 2013, accumulating a 15.6% fall by July 2016 (CAGR: 4.8%). Compounded with higher gasoline imports (chart below, middle), Mexico's oil balance has been in deficit since 4Q14 and at -1.1% of GDP in 2Q16 (chart below, right) from +1.6% in 4Q09. We believe it will stay negative at least for the rest of this and next year. According to Pemex and other market specialists, an increase in production and/or refining capacity is unlikely in this period. Pemex CEO González Anaya guided that production could average 2.13 million barrels a day in 2017, -3.3% from its average in 1H16.



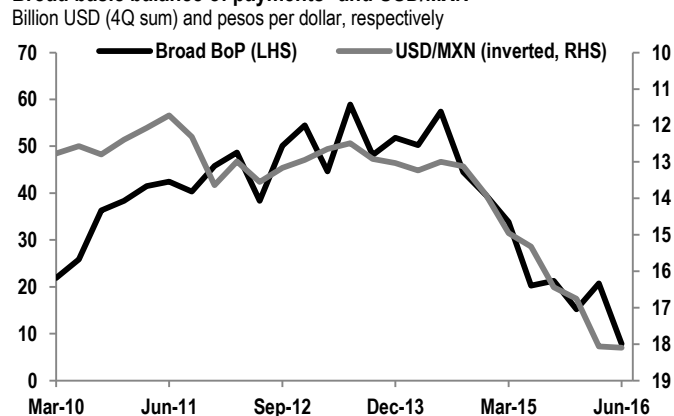
...will likely remain a drag to the CAD. The oil balance has been one of the main drivers of Mexico's wider CAD, going from US\$ 5.2 billion in 2010 (0.5% of GDP) to US\$ 31.9 billion by 2015 (2.8%). Net income from factors of production added to the deficit (from -1.3% to -2.8%) and net transfers have lessened the impact (about +2%). At its most basic level, this means more dollar/less peso demand. It is our take that this is the key fundamental driver behind the currency's accelerated depreciation since 2014 and explains most of the wider divergence between the nominal and real exchange rate. The peso's fall is one of the macro adjustments needed to correct the external imbalance (a higher real interest rate to slow consumption and inflation being another possibility). The chart below on the left shows that MXN sensitivity to terms of trade in the post-crisis period has picked up strongly, suggesting a greater effect of falling crude-oil on the currency even if the sector's weight on GDP is low. The muted response of the CAD and broad balance of payments (BBoP) to peso losses so far would argue in favor of MXN reaching a new (and weaker) equilibrium due to these shocks, at least until investments induced by the energy reform begin reversing production declines (chart below on the right). In 2Q16 the BBoP reached its lowest since 1Q09 at -US\$ 6.9 billion and was negative for the first time since mid-2012. This was mainly because of a higher CAD and portfolio outflows of US\$ 4.8 billion against an inflow of US\$ 12.2 billion in the previous quarter.

Terms of trade index and USD/MXN



Source: Banorte-Ixe with data from Bloomberg and Banxico

Broad basic balance of payments* and USD/MXN

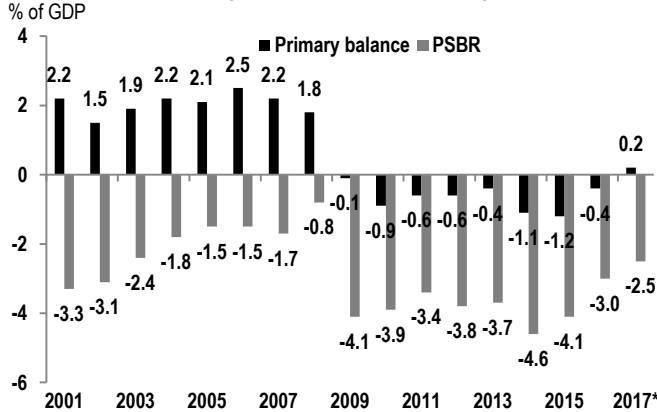


* Sum of the current account, net FDI and portfolio flows.
Source: Banorte-Ixe with data from Bloomberg and Banxico

Successful fiscal consolidation could lessen the need for the peso to fall below estimated “fair-value”. A third alternative (apart from rate hikes and currency depreciation) to help correct for a wider CAD is to reduce the government’s fiscal deficit as it decreases absorption (the sum of domestic consumption, investment and government expenditures). A balance of payments deficit can be thought of as a situation in which the country consumes more than it produces, with the gap filled with external financing. Nevertheless, reducing absorption and aggregate demand may come at a price, most likely lower GDP growth and higher unemployment.

We see the government’s greater efforts in this front as positive and expect fiscal consolidation measures to yield the intended results. Earlier last week, the Ministry of Finance announced a new target for *Public Sector Borrowing Requirements* (PSBR, the broadest measure of the deficit) of 3% of GDP from a previous of 3.5%. They also reiterated the commitment to achieve a primary surplus in 2017, not obtained since 2008 (chart below on the left). We highlight that given the government’s compromise of not raising taxes, a lower dependence on oil revenues (going from 32% in 2013 before the fiscal reform to 22% in 2015, see chart below on the right) lessens the risk of falling behind. On the contrary, we believe the main risk to public finances comes from the possibility that the Federal Government would need to inject additional resources to Pemex, with the company unable of even positive cash flow from operations (cash spending more than income before interest and taxes) in 1H16. In part related to this, both Moody’s (A3) and S&P (BBB+) have recently put Mexico’s sovereign on negative watch.

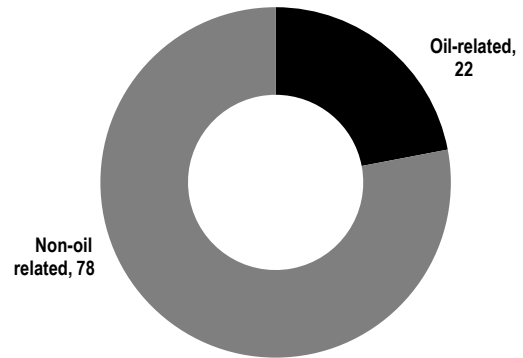
Public Sector Borrowing Requirements and Primary Surplus*



* Government estimates for the primary balance in 2016 and 2017. Banorte-Ixe estimate for PSBR in 2017
Source: Ministry of Finance

Government fiscal revenues

% of total revenues, 2015

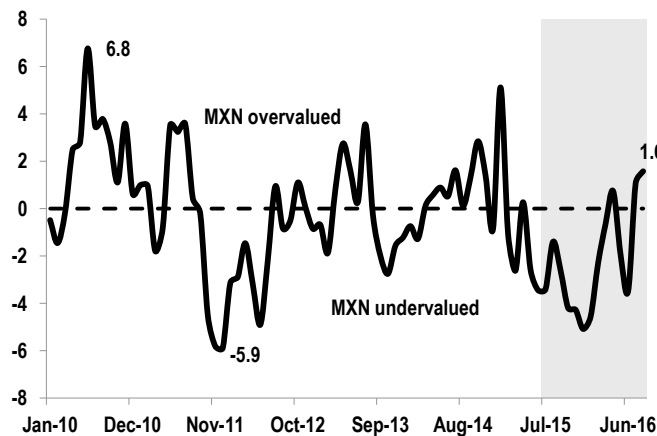


Note: In 1H16, oil-related revenues were only 7.6%. Nevertheless, we highlight the jump in extraordinary income due to the transfer of Banxico's operational surplus
Source: Ministry of Finance

Multifactor model suggests the MXN is a bit overvalued and is likely to remain pressured. We propose a model to estimate USD/MXN current fair-values and levels on different scenarios for Mexico's oil basket and production (details and results in the appendix). Our base-case is that Mexico's oil basket could average around US\$ 35 per barrel in 2017, the same as the government's forecast in its *Preliminary Economic Criteria*. Regarding production, we think Pemex's CEO guidance of an average of 2,130 thousand barrels a day exhibits downside risks. We assume a December 2016 average of 2,175 thousand barrels a day (actual in June was 2,178), falling 3%yoy in 2017 to 2,110. We note that Moody's forecasts of a 5%yoy contraction for the next three years is less sanguine as it implies production around 2,160 and 2,050 thousand by year-end 2016 and 2017, respectively.

MXN under/overvaluation according to multifactor model

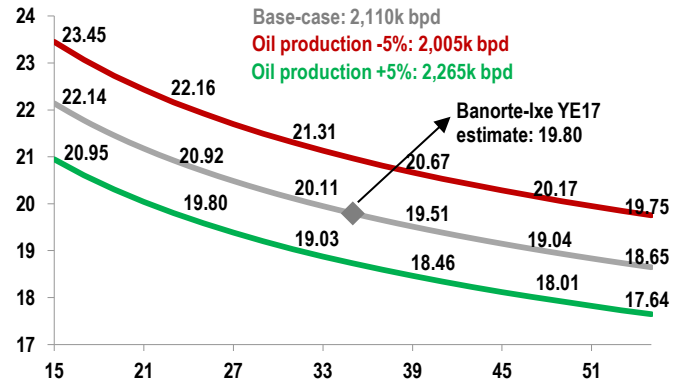
%, out-of-sample period in light grey



Source: Banorte-Ixe

Estimated USD/MXN for different prices of Mexico's oil basket*

Pesos per dollar and US\$ per barrel, respectively



* For year-end 2017. Details about the scenarios are included in the appendix
Source: Banorte-Ixe

First, the model forecasts an average value of USD/MXN 18.72 as of August 26, 1.6% above an actual of 18.46 (last: 18.28, shown in the chart above on the left). This is mostly because the MTD gain in Mexico's oil basket has been short-lived. Therefore, we see the peso as slightly overvalued. The MXN estimated loss to a 1% decrease in production is 1.1%. The same depreciation would be forecasted if Mexico's oil price falls by around 8.5%.

Second, our base-case scenario for year-end 2017 yields a forecast of USD/MXN 19.79 (chart above, right). We see the risks to this point-estimate as balanced. A similar result would be estimated if next year production stays at the Jun-16 level while oil prices fall to US\$ 25 per barrel. In spite of the latter and based on official guidance, we think that a stabilization or increase in production is unlikely in our forecast horizon. Additionally, we see a sustainable fall below USD/MXN 17.50 as relatively stretched as it would imply a very bullish scenario for both production (+5% yoy) and price (slightly above US\$ 55 per barrel). We warn that the model is limited in the sense that it does not estimate the potential effect of the peso on external accounts. Nevertheless and based on the dynamics seen so far, it suggests that an additional depreciation could be required for the currency to meaningfully help correct the current account deficit.

Third, we see current consensus as very bullish when running them through the model. For example, Banxico's survey median forecast of USD/MXN 18.20 would be obtained if production and all other variables stay at their current level and Mexican oil trades around US\$ 47-49. In a similar fashion, it could also be due to a combination of a 2.7% yoy increase in production from its Jun-16 level *and* an oil price between US\$ 43-45.

We stress that a plethora of factors not included in the model could invalidate them in both directions. Going forward, we will be particularly focused on: (1) The evolution of global monetary and fiscal policy initiatives given the ongoing debate of further stimulus in developed countries; (2) financial and banking stability risks due to the protracted period of low interest rates; and (3) deviations or additional efforts in Mexico's fiscal consolidation initiatives, the outlook for Pemex, and the potential impact of broad political risks in economic growth.

In terms of strategy, we remain cautious on the peso. We have recommended trading USD/MXN with a long bias for the most part of this year, an outlook that we reiterate both tactically and strategically. Although this piece is centered on our mid-term outlook for MXN, we believe that both local and global challenges will stay high, limiting the room for a definite change in the peso's weakening trend observed since mid-2014. On a shorter-term basis, we are also defensive, believing that appetite for dollar longs should increase strongly around the psychological and 200-day moving average technical support of 18.00 pesos per dollar, which we see very attractive for new positions. In our view, the most significant risk for the currency and our country in coming months is the US election, particularly if Donald Trump wins the presidency. Although not our base-case scenario, we think that risk premiums in local assets could increase gradually as we approach November 8, an important headwind for the peso's potential to extend its recent winning streak.

Appendix: USD/MXN multifactor model

We estimate a multifactor model using a dynamic OLS regression that includes both internal and external factors to gauge the degree of under/overvaluation of the peso/dollar rate against other financial and economic variables. The model uses monthly data for the post-crisis period from January 2010 to June 2016, with the following functional form:

$$\ln\left(\frac{USD}{MXN}_t\right) = \beta_0 + \beta_1 [\ln(Terms\ of\ trade_t)] + \beta_2 [\ln(Oil\ production_t)] + \beta_3 [\ln(Shanghai\ Composite_t)] + \beta_4 [Interest\ rate\ spread_t] + \varepsilon_t$$

Where:

- *USD/MXN*: Monthly average “fix” exchange rate of the peso against the dollar. (Source: Banxico).
- *Terms of trade*: Mexico’s monthly terms of trade index (100= 1980). (Source: Banxico).
- *Oil production*: Mexico’s average monthly crude-oil production in thousand barrels a day. (Source: Pemex).
- *Shanghai Composite Index*: Stock market index level, end-of-period. (Source: Bloomberg). This index is included as a proxy-variable for broad EM risks
- *Interest rate spread*: Average 3-month annualized interest rate of Cetes minus US on-the-run bills of the same tenor based on ask-prices, in percent. (Source: Banxico and Bloomberg).
- *Mexican oil basket*: Monthly estimated price of Mexico’s crude oil basket, average. (Source: Pemex).

Model parameters are estimated for the period Jan-10 to Jun-15 (out-of-sample from Jul-16 forward). Main results are presented in the table and charts below:

USD/MXN multifactor model: Main results

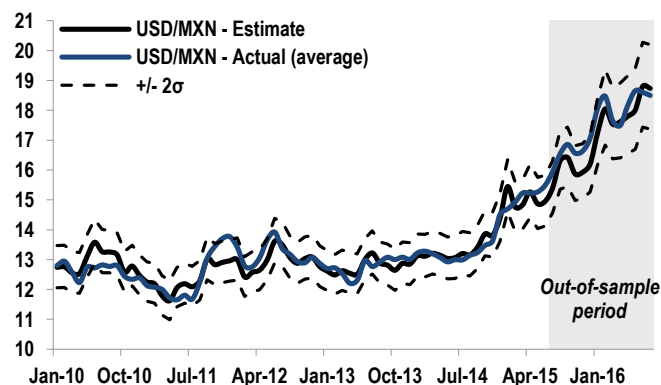
Using monthly data from January 2010 to June 2015

	Constant	Terms of trade	Oil production	Shanghai Composite	Int. rate spread
Beta	15.28	-0.82	-1.13	-0.10	0.05
St. Error	1.74	0.09	0.22	0.02	0.01
t-statistic	8.80	-8.93	-5.05	-4.11	4.24
p-value	0.00	0.00	0.00	0.00	0.00
F-statistic	79.79				
R ²	83.9%				

Source: Banorte-ixe

USD/MXN: Model results

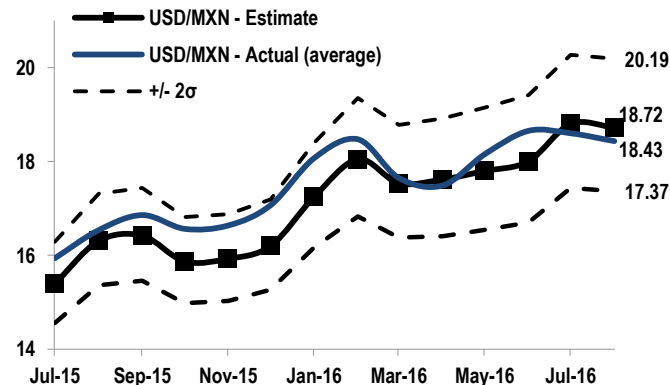
Pesos per dollar, all data up to August 2016



Source: Banorte-ixe

USD/MXN: Model results

Pesos per dollar, out-of-sample period until August 2016



Source: Banorte-ixe

Betas represent elasticities except for the constant and interest rate spread, with the results in terms of direction as expected. Regarding the rate differential, we note that, given its duration and zero-coupon, a 4bps widening would entail about a 1% price loss; therefore, we approximate the elasticity at 0.2%. The positive sign is consistent with the historical correlation of both variables—which has been typically positive—, likely driven primarily by changes in risk premiums as the spread in central bank rates has been mostly constant in the post-crisis period (from 2010 to Mar-13 and Jun-14 to Feb-16). Moreover, the strength of the correlation has been exacerbated in recent months by the view that Banxico has linked monetary and FX policy more closely (particularly since February 2016), given by the Board’s heightened concerns about stronger pass-through effects on inflation levels and expectations, and persistent vigilance of Mexico’s relative monetary policy conditions with respect to the US.

We used the Shanghai Composite as a proxy-variable for EM risk. We recognize that some issues may be raised in terms of its usefulness for this purpose, such as recent interventions by government funds to stabilize equities and capital controls. Nevertheless and thinking ahead, we believe it is valuable for the questions tackled as growth and financial risks in this country—and its effect on appetite for EM currencies— have recently gained relevance, likely remaining so in 2017. For the purposes of modeling the potential effect of oil on MXN, the relatively low correlation of prices (WTI) to this stock index and *vis-à-vis* other commonly used proxies of risk aversion (EMBI+, S&P500/VIX, 10Y UST/*bunds*, gold) is desirable in order to isolate for an environment of highly synchronized movements in risky assets (see tables below). Model results show that this variable is statistically significant; nevertheless, correlations show it is far less clear that it has a consistent and important effect on other risk-sensitive EM currencies.

EM/USD 90-day rolling correlations with other assets*

Average since 2010

	VIX	S&P 500	GSCI Index	Shanghai Comp.	Move Index	EMBI Plus spread	10-year UST	10-year Bund	Gold
MXN	-0.57	0.61	0.38	0.07	-0.19	-0.39	0.20	0.19	0.21
ZAR	-0.43	0.48	0.38	0.07	-0.15	-0.32	0.09	0.12	0.27
BRL	-0.39	0.43	0.34	0.12	-0.17	-0.32	0.14	0.17	0.20
HUF	-0.30	0.38	0.29	0.06	-0.11	-0.27	0.09	0.23	0.25
KRW	-0.12	0.15	0.17	0.28	-0.11	-0.26	0.08	0.08	0.10
RUB	-0.38	0.43	0.47	0.17	-0.15	-0.48	0.24	0.24	0.18
PLN	-0.34	0.40	0.32	0.06	-0.10	-0.30	0.13	0.23	0.27
CLP	-0.30	0.36	0.37	0.15	-0.13	-0.37	0.13	0.15	0.18
COP	-0.31	0.35	0.38	0.13	-0.18	-0.42	0.16	0.15	0.15
IDR	-0.12	0.15	0.15	0.15	-0.06	-0.26	0.11	0.11	0.08

* Positive means an increase in the variable is associated with currency depreciation against USD
Source: Banorte-ixe with data from Bloomberg, Morgan Stanley and JPM

Crude-oil 90-day rolling correlations with other assets*

Average since 2010

	VIX	S&P 500	Shanghai Comp.	Move Index	EMBI Plus spread	10-year UST	10-year Bund	Gold
WTI	-0.30	0.39	0.11	-0.06	-0.35	0.26	0.23	0.24
Brent	-0.29	0.39	0.12	-0.07	-0.34	0.24	0.21	0.24
Crammix	-0.01	-0.02	0.03	-0.04	-0.05	0.01	-0.02	0.15

** Positive means an increase in the variable is associated with oil price gains

Source: Banorte-ixe with data from Bloomberg, Morgan Stanley and JPM

It is worth noting that model results include our estimates for USD/MXN values in July and August 2016. Except for the “terms of trade” data which was unavailable at the time of writing, we use actual, MTD and/or most recent values for the rest of the variables as inputs to estimate the equation. With respect to terms of trade, we run the following, supporting regression:

$$\ln(\text{Terms of trade}_t) = \varphi_0 + \varphi_1 [\ln(\text{Mexican oil basket}_t)] + \varphi_2 [\ln(\text{Terms of trade}_{t-1})] + \varphi_3 [\ln(\text{Mexican oil basket}_{t-1})] + \vartheta_t$$

Supporting model for terms of trade estimation

Using monthly data from February 2010 to June 2016 after adjustments

	Constant	Mexican oil basket _t	Terms of trade _{t-1}	Mexican oil basket _{t-1}
Phi	0.13	0.16	0.96	-0.15
St. Error	0.15	0.02	0.05	0.02
t-statistic	0.81	10.46	18.95	-8.86
p-value	0.42	0.00	0.00	0.00
F-statistic	1639.00			
R ²	98.5%			

Source: Banorte-ixe

This latter model does not present problems of autocorrelation in the error term (the Breusch-Godfrey autocorrelation test statistic with twelve lags has a p-value of 0.6374). Using these latter results, we can estimate the expected value of USD/MXN according to the former model by controlling for different values of Mexico’s crude-oil price mix and production, which is how we obtained the estimates shown in the main part of this document.

Last but not least, the table below shows a breakdown of model results for year-end 2017. We assume the Shanghai Composite at 3,324.98pts (consensus 12M forecast according to Bloomberg) and a 3-month interest rate spread of 4.55%. The possibilities that yield our USD/MXN 19.80 forecast are highlighted in light green. The column labeled “Actual” uses values as of August 26, 2016 of 3,070.31 and 4.08%, respectively, with our current estimate shown in grey. The combination of other market estimates are shown in blue (Banxico’s survey mean and/or median) and red (Bloomberg).

Oil production (thousand barrels per day)

	2,005	2,110	2,216	2,158
	-5%	Base-case	+5%	Actual
15	23.45	22.14	20.95	21.23
17	23.07	21.78	20.60	20.88
19	22.73	21.46	20.30	20.57
21	22.43	21.18	20.04	20.30
23	22.16	20.92	19.80	20.06
25	21.92	20.69	19.58	19.84
27	21.70	20.48	19.38	19.64
29	21.50	20.29	19.20	19.46
31	21.31	20.11	19.03	19.29
33	21.13	19.95	18.88	19.13
35	20.97	19.79	18.73	18.98
37	20.81	19.65	18.59	18.84
39	20.67	19.51	18.46	18.72
41	20.53	19.38	18.34	18.59
43	20.41	19.26	18.23	18.47
45	20.28	19.15	18.12	18.36
47	20.17	19.04	18.01	18.25
49	20.06	18.93	17.92	18.15
51	19.95	18.83	17.82	18.06
53	19.85	18.74	17.73	17.97
55	19.75	18.65	17.64	17.88

Source: Banorte-Ixe

Track of the latest fixed-income trade recommendations

Trade idea	Entry	Target	Stop-loss	Closed	Status	P/L	Initial date	End date
Long Mbono Jun'21	5.60%	5.35%	5.80%	5.43%	Closed	Profit	13-Jul-16	16-Aug-16
Long Udibono Jun'19	1.95%	1.65%	2.10%	2.10%	Closed	Loss	13-Jul-16	16-Aug-16
Receive 1-year TIE-IRS (13x1)	3.92%	3.67%	4.10%	3.87% ¹	Closed	Profit	12-Nov-15	8-Feb-16
Long spread 10-year TIE-IRS vs US Libor	436bps	410bps	456bps	410bps	Closed	Profit	30-Sep-15	23-Oct-15
Receive 9-month TIE-IRS (9x1)	3.85%	3.65%	4.00%	3.65%	Closed	Profit	3-Sep-15	18-Sep-15
Spread TIE 2/10 yrs (flattening)	230pb	200pb	250pb	200pb	Closed	Profit	26-Jun-15	29-Jul-15
Long Mbono Dec'24	6.12%	5.89%	6.27%	5.83%	Closed	Profit	13-Mar-15	19-Mar-15
Relative-value trade, long 10-year Mbono (Dec'24) / flattening of the curve					Closed	Profit	22-Dec-14	6-Feb-15
Pay 3-month TIE-IRS (3x1)	3.24%	3.32%	3.20%	3.30%	Closed	Profit	29-Jan-15	29-Jan-15
Pay 9-month TIE-IRS (9x1)	3.28%	3.38%	3.20%	3.38%	Closed	Profit	29-Jan-15	29-Jan-15
Pay 5-year TIE-IRS (65x1)	5.25%	5.39%	5.14%	5.14%	Closed	Loss	4-Nov-14	14-Nov-14
Long Udibono Dec'17	0.66%	0.45%	0.82%	0.82%	Closed	Loss	4-Jul-14	26-Sep-14
Relative-value trade, long Mbonos 5-to-10-year					Closed	Profit	5-May-14	26-Sep-14
Receive 2-year TIE-IRS (26x1)	3.75%	3.55%	3.90%	3.90%	Closed	Loss	11-Jul-14	10-Sep-14
Receive 1-year TIE-IRS (13x1)	4.04%	3.85%	4.20%	3.85%	Closed	Profit	6-Feb-14	10-Apr-14
Long Udibono Jun'16	0.70%	0.45%	0.90%	0.90%	Closed	Loss	6-Jan-14	4-Feb-14
Long Mbono Jun'16	4.47%	3.90%	4.67%	4.06%	Closed	Profit	7-Jun-13	21-Nov-13
Receive 6-month TIE-IRS (6x1)	3.83%	3.65%	4.00%	3.81%	Closed	Profit	10-Oct-13	25-Oct-13
Receive 1-year TIE-IRS (13x1)	3.85%	3.55%	4.00%	3.85%	Closed	Flat	10-Oct-13	25-Oct-13
Long Udibono Dec'17	1.13%	0.95%	1.28%	1.35%	Closed	Loss	9-Aug-13	10-Sep-13
Receive 9-month TIE-IRS (9x1)	4.50%	4.32%	4.65%	4.31%	Closed	Profit	21-Jun-13	12-Jul-13
Spread TIE-Libor (10-year)	390bps	365bps	410bps	412bps	Closed	Loss	7-Jun-13	11-Jun-13
Receive 1-year TIE-IRS (13x1)	4.22%	4.00%	4.30%	4.30%	Closed	Loss	19-Apr-13	31-May-13
Long Udibono Jun'22	1.40%	1.20%	1.55%	0.97%	Closed	Profit	15-Mar-13	3-May-13
Receive 1-year TIE-IRS (13x1)	4.60%	4.45%	4.70%	4.45%	Closed	Profit	1-Feb-13	7-Mar-13
Long Mbono Nov'42	6.22%	5.97%	6.40%	5.89%	Closed	Profit	1-Feb-13	7-Mar-13
Long Udibono Dec'13	1.21%	0.80%	1.40%	1.40%	Closed	Loss	1-Feb-13	15-Apr-13
Receive 1-year TIE-IRS (13x1)	4.87%	4.70%	5.00%	4.69%	Closed	Profit	11-Jan-13	24-Jan-13
Receive TIE Pay Mbono (10-year)	46bps	35bps	54bps	54bps	Closed	Loss	19-Oct-12	8-Mar-13
Spread TIE-Libor (10-year)	410bps	385bps	430bps	342bps	Closed	Profit	21-Sep-13	8-Mar-13
Long Udibono Dec'12	+0.97%	-1.50%	+1.20%	-6.50%	Closed	Profit	1-May-12	27-Nov-12
Long Udibono Dec'13	+1.06%	0.90%	+1.35%	0.90%	Closed	Profit	1-May-12	14-Dec-12

¹ Carry +roll-down gains of 17bps

Track of the latest FX trade recommendations*

Trade Idea	Entry	Target	Stop-loss	Closed	Status	P/L*	Initial Date	End date
Long USD/MXN	14.98	15.50	14.60	15.43	Closed	Profit	20-Mar-15	20-Apr-15
Short EUR/MXN	17.70	n.a.	n.a.	16.90	Closed	Profit	5-Jan-15	15-Jan-15
Tactical trade: Long USD/MXN	14.40	n.a.	n.a.	14.85	Closed	Profit	15-Dec-14	5-Jan-15
Tactical trade: Long USD/MXN	13.62	n.a.	n.a.	14.11	Closed	Profit	21-Nov-14	3-Dec-14
Short USD/MXN	13.21	n.a.	n.a.	13.64	Closed	Loss	10-Sep-14	26-Sep-14
Tactical trade: Short EUR/MXN	17.20	n.a.	n.a.	17.03	Closed	Profit	27-Aug-14	4-Sep-14
USD/MXN call spread**	12.99	13.30	n.a.	13.02	Closed	Loss	6-May-14	13-Jun-14
Directional short USD/MXN	13.00	12.70	13.25	13.28	Closed	Loss	31-Oct-13	8-Nov-13
Limit short USD/MXN	13.25	12.90	13.46	--	Cancelled	--	11-Oct-13	17-Oct-13
Speculative short USD/MXN	12.70	12.50	13.00	13.00	Closed	Loss	26-Jul-13	21-Aug-13
Short EUR/MXN	16.05	15.70	16.40	15.69	Closed	Profit	29-Apr-13	9-May-13
Long USD/MXN	12.60	12.90	12.40	12.40	Closed	Loss	11-Mar-13	13-Mar-13
Long USD/MXN	12.60	12.90	12.40	12.85	Closed	Profit	11-Jan-13	27-Feb-13
Tactical limit short USD/MXN	12.90	12.75	13.05	--	Cancelled	--	10-Dec-12	17-Dec-12

* Total return does not consider carry gain/losses

** Low strike (long call) at 13.00, high strike (short call) at 13.30 for a premium of 0.718% of notional amount

Source: Banorte-Ixe

Disclaimer

The information contained in this document is illustrative and informative so it should not be considered as an advice and/or recommendation of any kind. BANORTE is not part of any party or political trend.

GRUPO FINANCIERO BANORTE S.A.B. de C.V.
Research and Strategy

Gabriel Casillas Olvera	Chief Economist and Head of Research	gabriel.casillas@banorte.com	(55) 4433 - 4695
Raquel Vázquez Godínez	Assistant	raquel.vazquez@banorte.com	(55) 1670 - 2967

Economic Analysis

Delia María Paredes Mier	Executive Director of Economic Analysis	delia.paredes@banorte.com	(55) 5268 - 1694
Alejandro Cervantes Llamas	Senior Economist, Mexico	alejandro.cervantes@banorte.com	(55) 1670 - 2972
Katia Celina Goya Ostos	Senior Global Economist	katia.goya@banorte.com	(55) 1670 - 1821
Miguel Alejandro Calvo Domínguez	Economist, Regional & Sectorial	miguel.calvo@banorte.com	(55) 1670 - 2220
Juan Carlos García Viejo	Economist, International	juan.garcia.viejo@banorte.com	(55) 1670 - 2252
Lourdes Calvo Fernández	Analyst (Edition)	lourdes.calvo@banorte.com	(55) 1103 - 4000 x 2611

Fixed income and FX Strategy

Alejandro Padilla Santana	Head Strategist – Fixed income and FX	alejandro.padilla@banorte.com	(55) 1103 - 4043
Juan Carlos Alderete Macal, CFA	FX Strategist	juan.alderete.macal@banorte.com	(55) 1103 - 4046
Santiago Leal Singer	Analyst Fixed income and FX	santiago.leal@banorte.com	(55) 1670 - 2144

Equity Strategy

Manuel Jiménez Zaldivar	Director Equity Research — Telecommunications / Media	manuel.jimenez@banorte.com	(55) 5268 - 1671
Victor Hugo Cortes Castro	Equity Research Analyst	victorh.cortes@banorte.com	(55) 1670 - 1800
Marissa Garza Ostos	Senior Equity Research Analyst – Conglomerates / Financials/ Mining / Chemistry	marissa.garza@banorte.com	(55) 1670 - 1719
Marisol Huerta Mondragón	Equity Research Analyst – Food / Beverages / Specialized Commerce	marisol.huerta.mondragon@banorte.com	(55) 1670 - 1746
José Itzamna Espitia Hernández	Equity Research Analyst – Airports / Cement / Infrastructure / Fibras	jose.espitia@banorte.com	(55) 1670 - 2249
Valentín III Mendoza Balderas	Equity Research Analyst – Auto Parts/ Consumer Discretionary / Real Estate / Retail	valentin.mendoza@banorte.com	(55) 1670 - 2250
Eugenia Ivonne Arias Medina	Analyst	eugenia.arias.medina@banorte.com	(55) 1670 - 2251

Corporate Debt

Tania Abdul Massih Jacobo	Director Corporate Debt	tania.abdul@banorte.com	(55) 5268 - 1672
Hugo Armando Gómez Solís	Analyst, Corporate Debt	hugo.gomez@banorte.com	(55) 1670 - 2247
Idalia Yanira Céspedes Jaén	Analyst, Corporate Debt	idalia.cespedes@banorte.com	(55) 1670 - 2248

Wholesale Banking

Armando Rodal Espinosa	Head of Wholesale Banking	armando.rodal@banorte.com	(55) 1670 - 1889
Alejandro Eric Faesi Puente	Head of Global Markets and Institutional Sales	alejandro.faesi@banorte.com	(55) 5268 - 1640
Alejandro Aguilar Ceballos	Head of Asset Management	alejandro.aguilar.cebillos@banorte.com	(55) 5268 - 9996
Arturo Monroy Ballesteros	Head of Investment Banking and Structured Finance	arturo.monroy.ballesteros@banorte.com	(55) 5004 - 1002
Gerardo Zamora Nanez	Head of Transactional Banking, Leasing and Factoring	gerardo.zamora@banorte.com	(81) 8318 - 5071
Jorge de la Vega Grajales	Head of Government Banking	jorge.delavega@banorte.com	(55) 5004 - 5121
Luis Pietrini Sheridan	Head of Private Banking	luis.pietrini@banorte.com	(55) 5004 - 1453
René Gerardo Pimentel Ibarrola	Head of Asset Management	pimentelr@banorte.com	(55) 5268 - 9004
Ricardo Velázquez Rodríguez	Head of International Banking	rvelazquez@banorte.com	(55) 5004 - 5279
Víctor Antonio Roldan Ferrer	Head of Corporate Banking	victor.rolan.ferrer@banorte.com	(55) 5004 - 1454