

Latam FX-Fair: A model of fundamental value for Latam currencies

LatAm currencies excluding the COP appreciated by 1.2% on average in October. During the month, international markets fluctuated in response to the corporate earning seasons but also to the weaker guidance from multilaterals such as the IMF pointing increasing recession fears in the medium term. In the meanwhile, markets affirmed the expectation of “higher rates for longer”, trading higher FI rates, while the DXY only gained 1.3% in an erratic month.

On the LatAm side, Brazil affirmed rate stability and Lula won the presidential elections. In Mexico, was a relatively quiet month. In Chile, the fiscal reform discussion started, and the central bank announced the end of the hiking cycle. In Peru, corruption accusations continued, while in Colombia communication mistakes lead to a strong volatility.

In November, the Fed's decision and stance going into the next meetings will be key for the mood of the month. Mexico and Perú central banks are pointed to decide on November 10.

- **MXN** remained overvalued from a long-term perspective and closer to the values obtained from a short-term analysis. A stable rate differential vs. the US and strong remittances would contribute to seeing a stable MXN in the medium term, which poses the currency as one of the most defensive in the region.
- **CLP** is less undervalued than in the past and closer to the short-term fitted value. The central bank pause in the hiking cycle would put some pressure on the FX via differentials vs the US.
- **COP** is well undervalued vs the long and the short-term model. Idiosyncratic risk triggered by communication mistakes deviated further from the COP from its long-term fundamental value. there is not a clear trigger to reverse the recent movement.
- **PEN** seems fair valued vs the long-term and the short-term models. The currency was broadly stable during October despite the political risk being high. The central bank is expected to continue its hiking cycle in November, and the currency would continue stable as the short-term model points to lower sensitivity to rate differentials.
- **BRL**. Is fair value vs the short-term model, and slightly undervalued vs the long-term model. Brazil was the preferred currency of the region previous to the expected tight presidential election. The next milestone will be the designation of the finance minister to affirm the rally structurally.

Table 1: Theoretical exchange rate vs current levels. Last Update: October 31, 2022

	Estimated Levels					% differences spot vs model			
	Spot	Short term model	Long term model			Short term model	Long term model		
			Quantile 5	Quantile 50	Quantile 95		Quantile 5	Quantile 50	Quantile 95
MXN	19.8185	20.1071	20.1337	22.1698	23.7978	-1.4	-1.6	10.6	16.7
CLP	943.4	948.7	878.8	883.1	966.0	-0.6	7.3	6.8	-2.3
COP	4940	4693	3750	3976	4805	5.3	31.7	24.3	2.8
PEN	3.9860	3.9883	3.7915	3.9641	4.1405	-0.1	5.1	0.6	-3.7
BRL	5.1797	5.189	4.742	5.073	5.393	-0.2	9.2	2.1	-4.0

Main results are shown in levels and % differences (spot vs models)

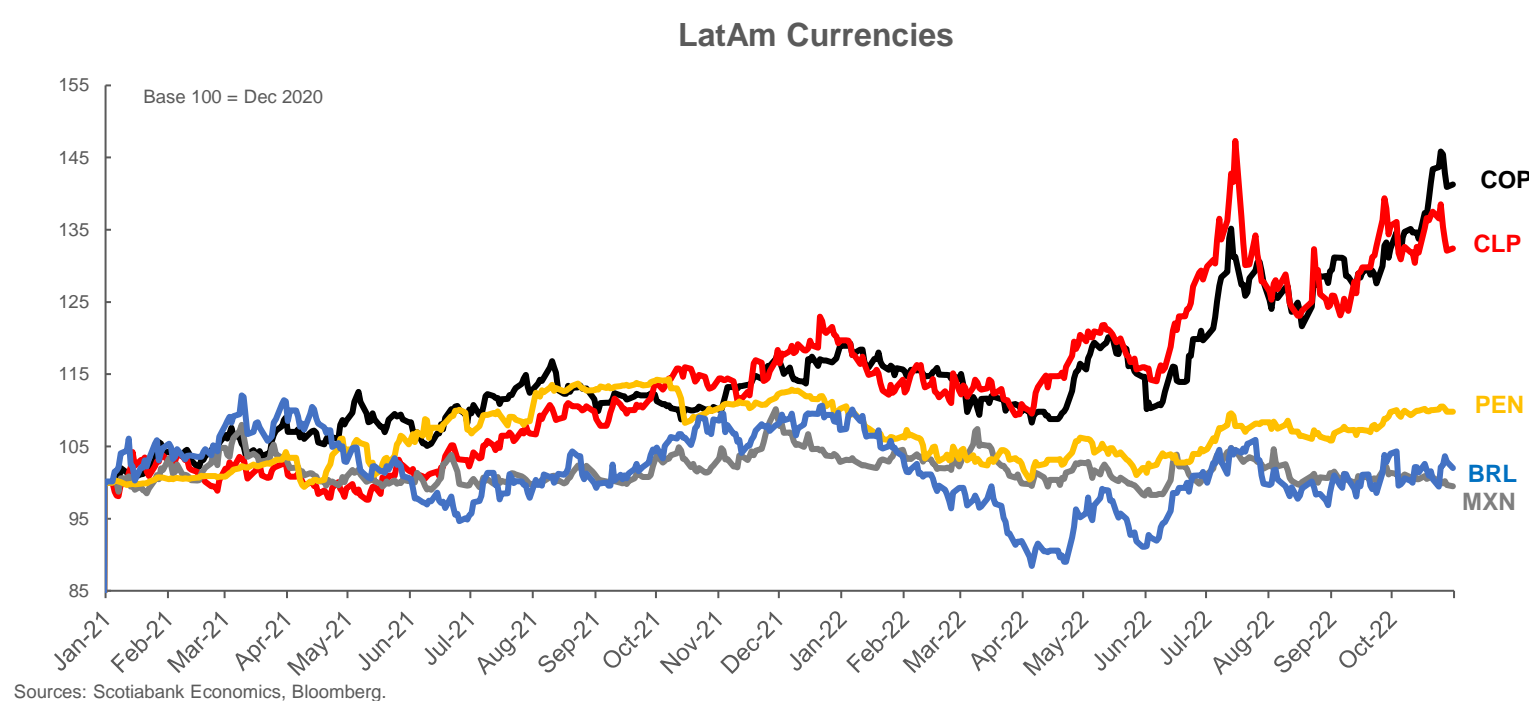


Table 2: Models' specification by currency and main blocks

Currency	External sector block	Rate differentials vs the US block	Risk metrics bloc
MXN	Oil (Brent)	Diff slopes 10Y-3M	CDS5Y / S&P500 / Pol Uncertainty / EM Currency Index
CLP	Cooper	Diff 3m rates	CDS5Y / S&P500 / VIX
BRL	Soybean/Brent	Diff 3m rates	CDS5Y / S&P500 / VIX
PEN	Cooper	Diff slopes 10Y-2Y	CDS5Y / S&P500 / VIX
COP	Oil (Brent)	Diff 3m rates	CDS5Y / S&P500 / VIX

Latam FX-Fair is based on quantile regression under a three big variable blocks

LatAm Currency Crosses monitor.

In October, the COP underperform the region showing all the crosses vs peers in high percentiles compared with the 1-year, 3-year, and 5-year horizon. Idiosyncratic issues are hard-hitting Colombia, and despite macro fundamentals are still supportive, the perspective of a widened external deficit vs the region would support the underperformance of the COP for a while.

Spot crosses levels (colors represent the closer quantile)

1 Year

BASE	PRICE					
	USD	COP	MXN	PEN	CLP	BRL
	USD	4900.4	19.8896	3.9804	943.56	5.3086
	COP	0.0204065	0.406	0.0812	0.1925	0.10836556
	MXN	0.05027753	246.3929	0.2009	47.4325	0.26695141
	PEN	0.25123103	1231.1741	4.9987	237.0503	1.33440085
	CLP	0.1059816	5.1947	2.1087	0.4218	0.56294515
	BRL	0.18837358	922.8024	3.746	0.7494	177.6372
QUANTILES		0%	25%	50%	75%	100%

3 Years

BASE	PRICE					
	USD	COP	MXN	PEN	CLP	BRL
	USD	4900.4	19.8896	3.9804	943.56	5.3086
	COP	0.0204065	0.406	0.0812	0.1925	0.10836556
	MXN	0.05027753	246.3929	0.2009	47.4325	0.26695141
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5 Years

BASE	PRICE					
	USD	COP	MXN	PEN	CLP	BRL
	USD	4900.4	19.8896	3.9804	943.56	5.3086
	COP	0.0204065	0.406	0.0812	0.1925	0.10836556
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How to read this?

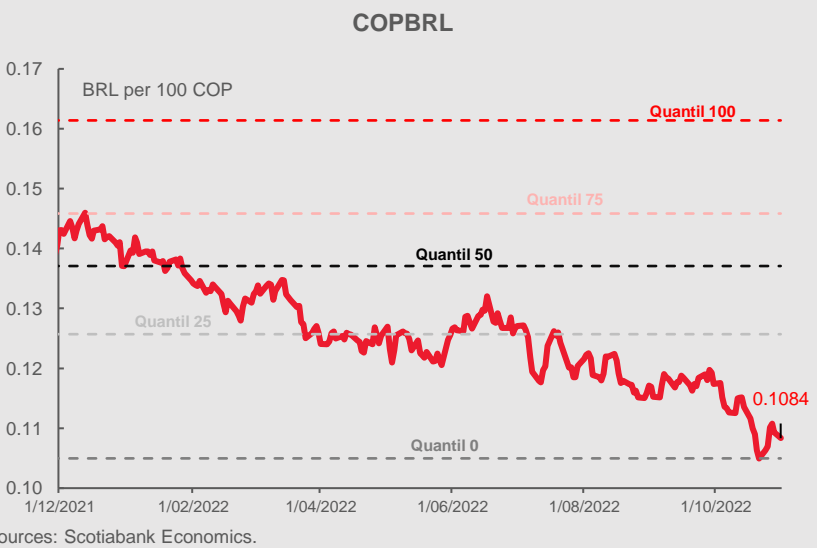
Columns represent the Price currency, while the row is base, the right way to read this is $P/B = X$ units of Price currency (P) needed to purchase one unit of the base currency (B).

When the COP is the base, it is each currency compared with 100 Colombian pesos.

The elements that compose the matrix are denoted in the form a_{ij} , i = row and j = column. In this example the element a_{26} is composed of $i = 2$ and $j = 6$.

The data of a_{26} represents the COPBRL ratio, that is, how many monetary units of BRL are needed to buy 100 COP.

The graph contains the 3-year historical series of the COPBRL spot. It is observed that the last spot is below the average, this indicates that the monetary units of BRL currency needed to acquire 100 COP pesos are lower than the 3-year average paid.



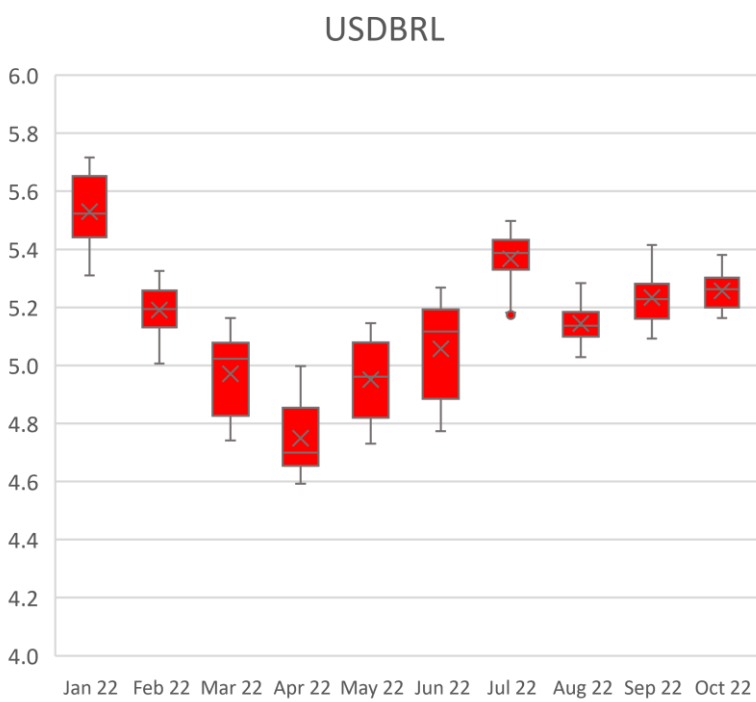
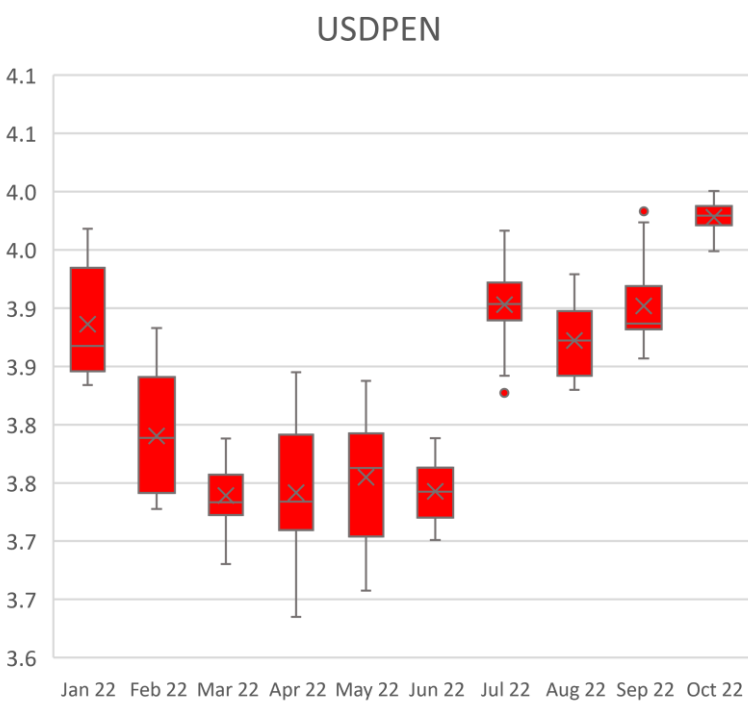
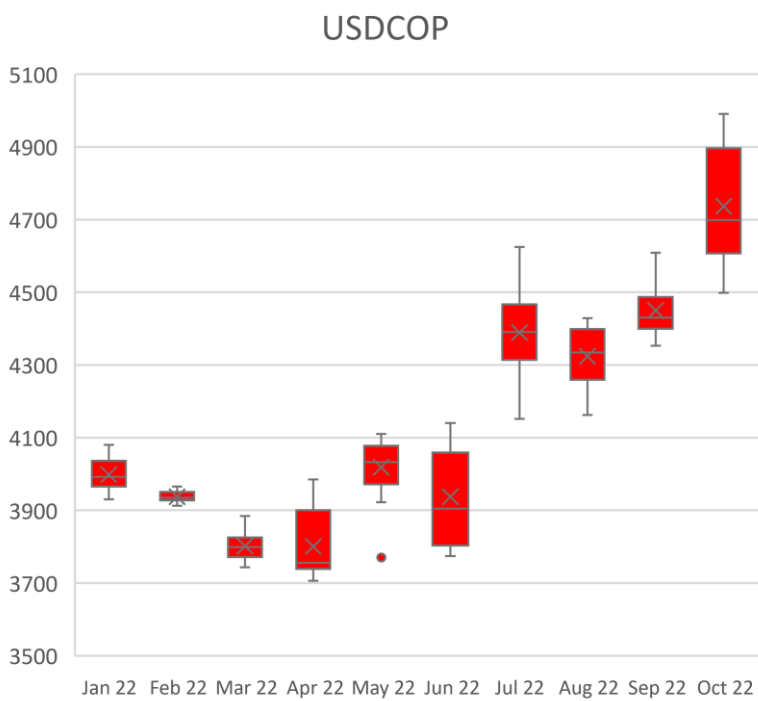
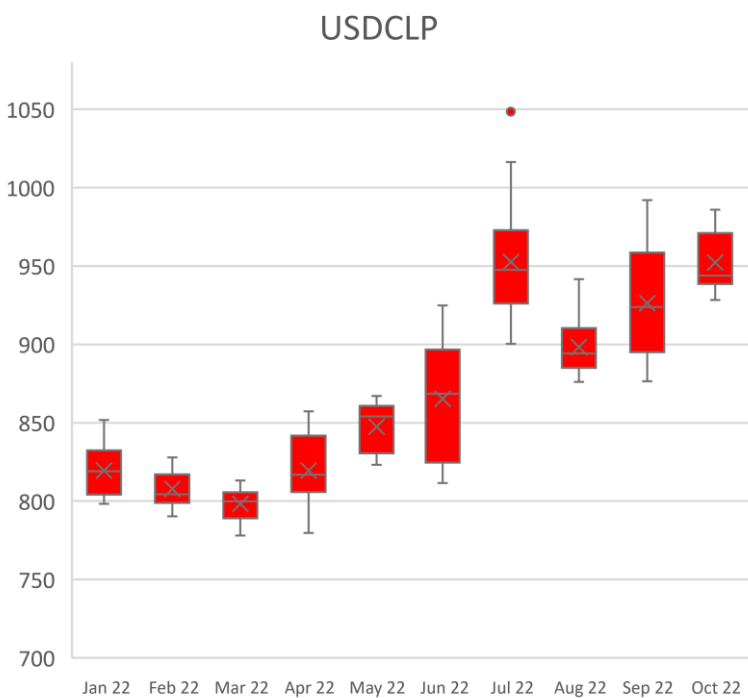
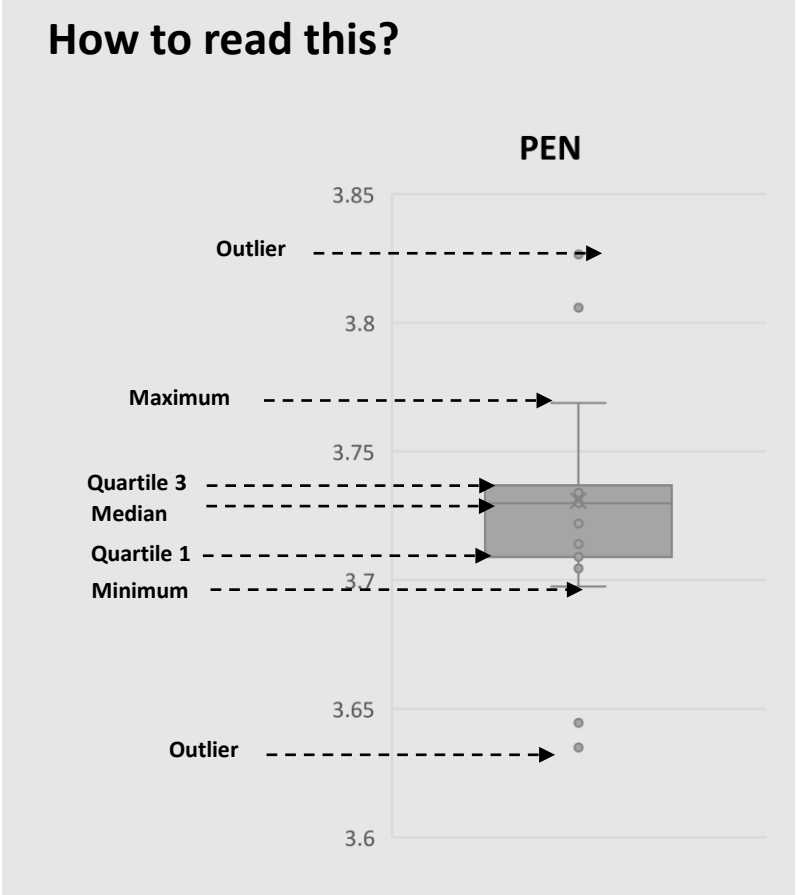
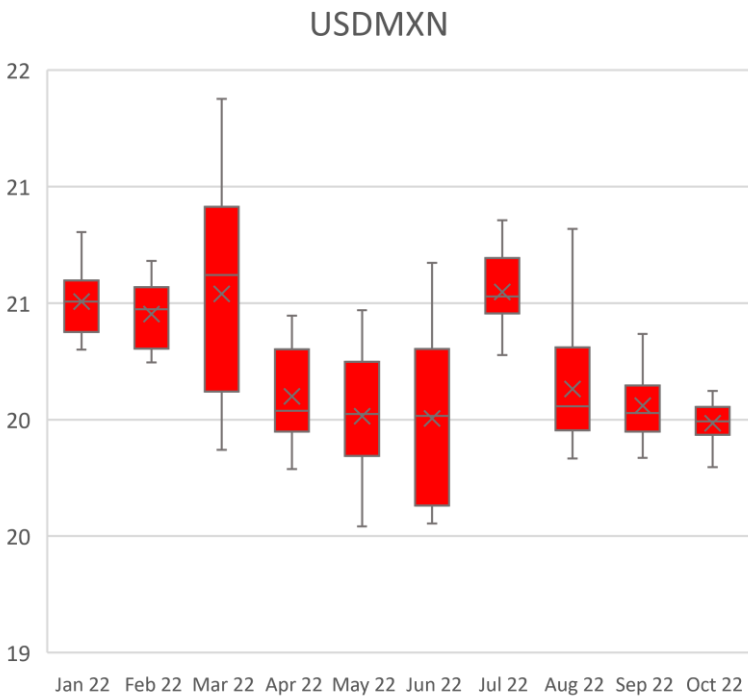
*Note that...

- COPUSD - Price of 100 COP in USD
- COPMXN - Price of 100 COP in MXN
- COPPEN - Price of 100 COP in MXN
- COPBRL - Price of 100 COP in BRL
- CLPUSD - Price of 100 CLP in USD
- CLPMXN - Price of 100 CLP in MXN
- CLPPEN - Price of 100 CLP in PEN
- CLPBRL - Price of 100 CLP in BRL

In this monitor we present the percentile positioning of Latam crosses vs a one-, three- and five-year window. In the matrix are the current values of each possible cross between MXN, CLP, COP, PEN, BRL, and USD. The price represents the monetary units that are paid for one unit of the Base currency*. The historical data were grouped into quantiles in order to see how far the current data is from the mean (quantile 50). If the last observed data is below the average, it will indicate the appreciation of the currency Price against the Base currency with respect to its historical value. If the price is above the mean, it will indicate the depreciation of the currency Price against the Base currency with respect to its history.

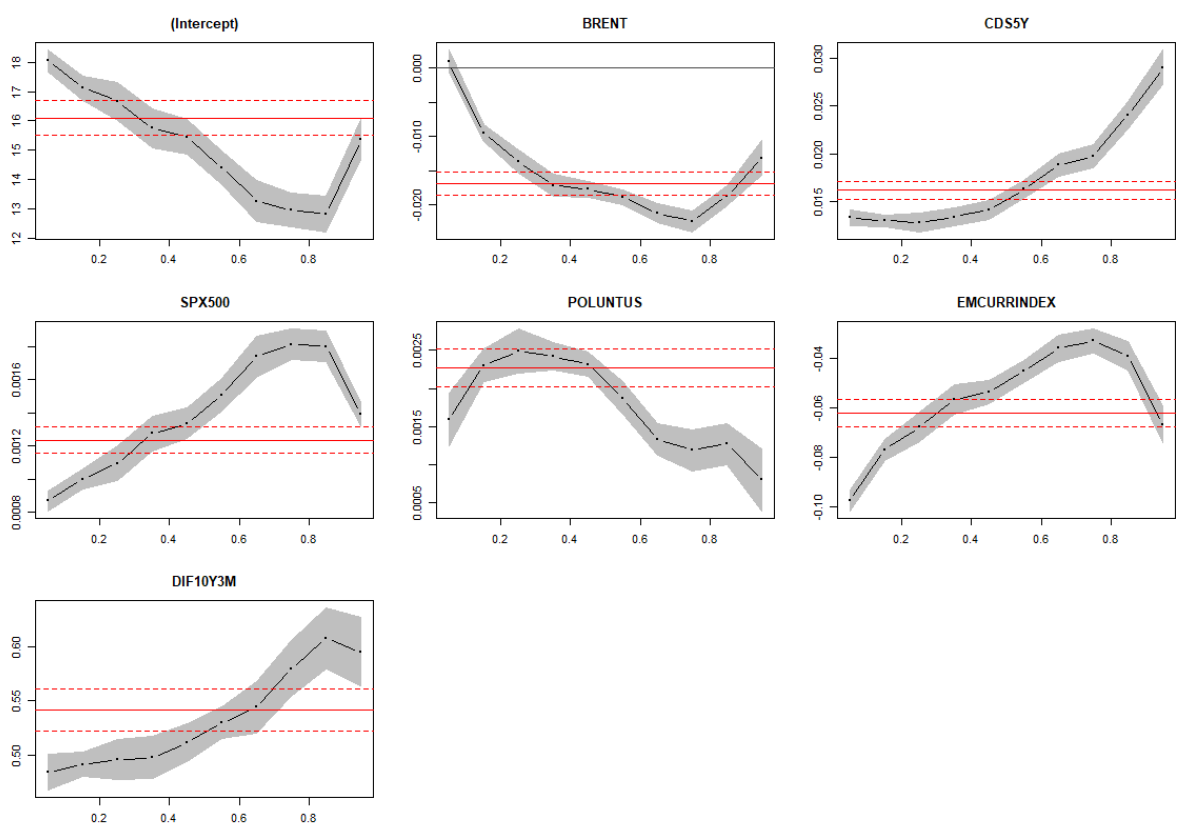
Monthly Box and whiskers Latam Currency charts

October was the month with the lowest volatility for most of the currencies in the region. Colombia was the exception as the COP reacted to communication mistakes from government officials. Despite key government officials such as the Finance Minister, José Antonio Ocampo having emphasized that Colombia has a strong macroeconomic framework, the market is still reticent to believe, and it would make the COP underperform vs the region for a longer time.

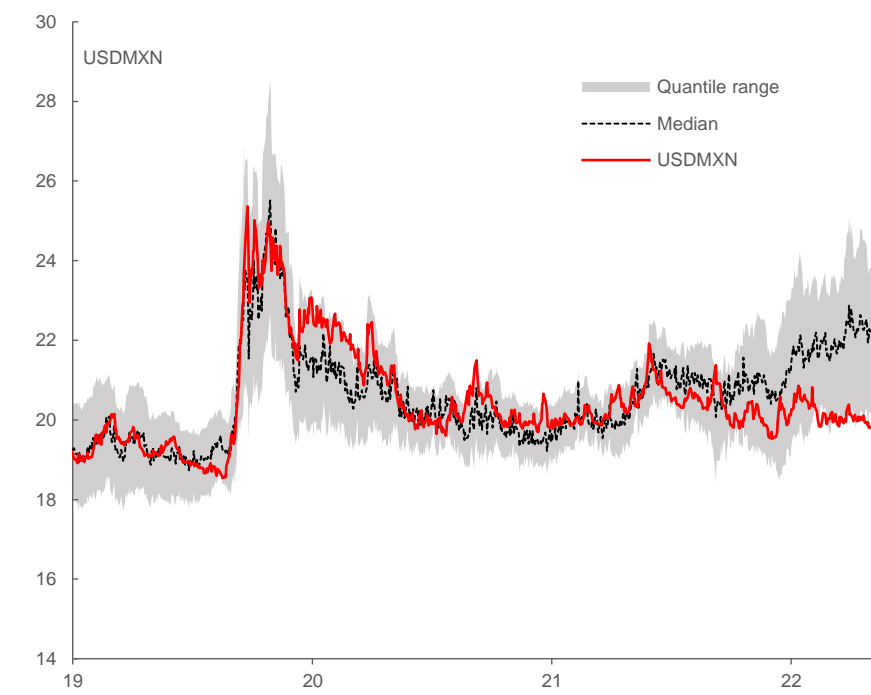


MXN Long-term Model: Based on a long-term perspective, the Mexican Peso is still overvalued relative to its fundamentals. The reading is the same as the previous months, USD/MXN is below the lowest quantile interval, which seems strongly aligned with international trends and underweighting domestic noise, and at the almost mute reaction to commodity prices. The short-term model points out that rate differentials vs the US increased its influence on the MXN. Banxico's hiking cycle is expected to end at 10.50% mirroring the Fed's action. **That said, the MXN would continue to be the most defensive currency in the region.**

Quantile Plot



USDMXN vs Quant Reg Fitted Values



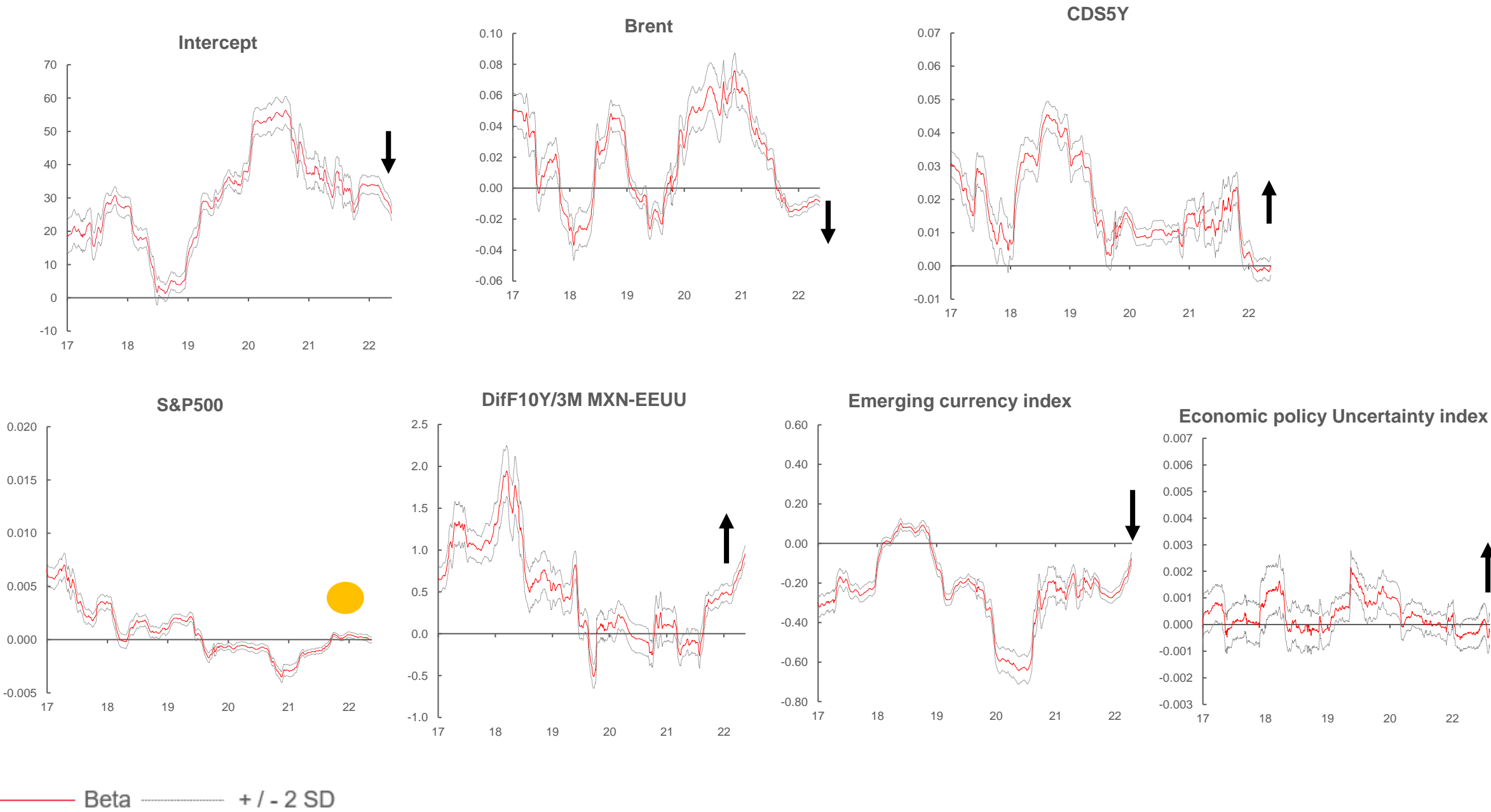
Sources: Bloomberg, Scotiabank Economics.

The graph to the right, shows the median of the MXN value calculated by the model (black dotted line) along with the realized value of USD/MXN (solid red line). The gray shade represents the area containing the whole range of estimates of the quantile regression from percentiles 5 to 95.

MXN Short-term / Rolling Regression Betas:

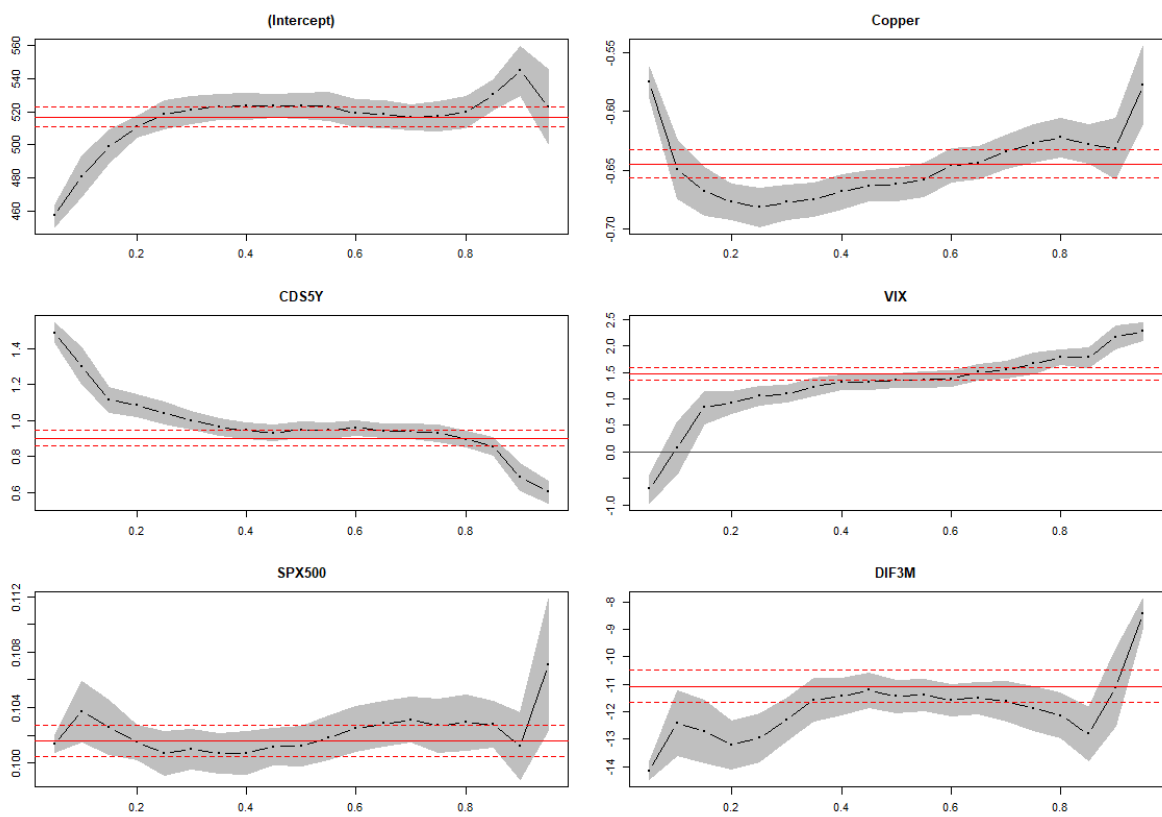
Main changes during the month are represented by the arrows

↓ Lower sensitivity ↑ Higher Sensitivity ● Unchanged

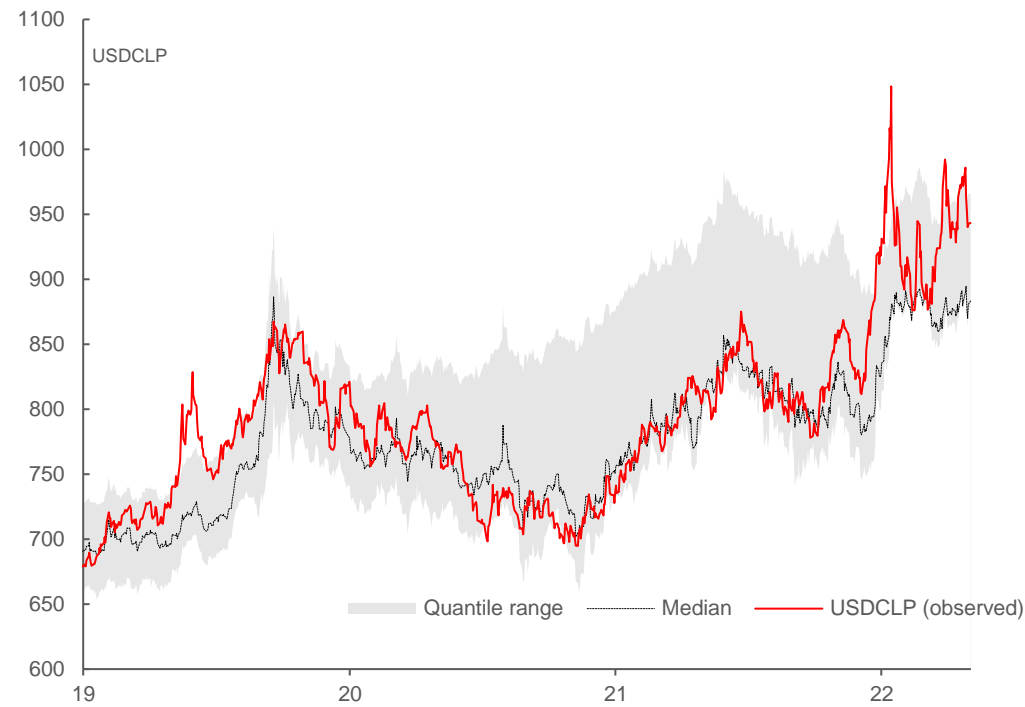


CLP Long-term Model: In September, the CLP strengtened. That said, the currency is less undervalued that in the past. The Central Bank announced the end of the hiking cycle. The economic activity data is showing a hard landing that would conduct the economy to a recession in 2023. In that context, the currency in the medium term would face challenges as the rate differential vs the US would narrow, and perspectives of rate cuts would play against the market. Fiscal reform is under discussion, and it would add to the political risk.

Quantile Plot



USDCLP vs Quant Reg Fitted values

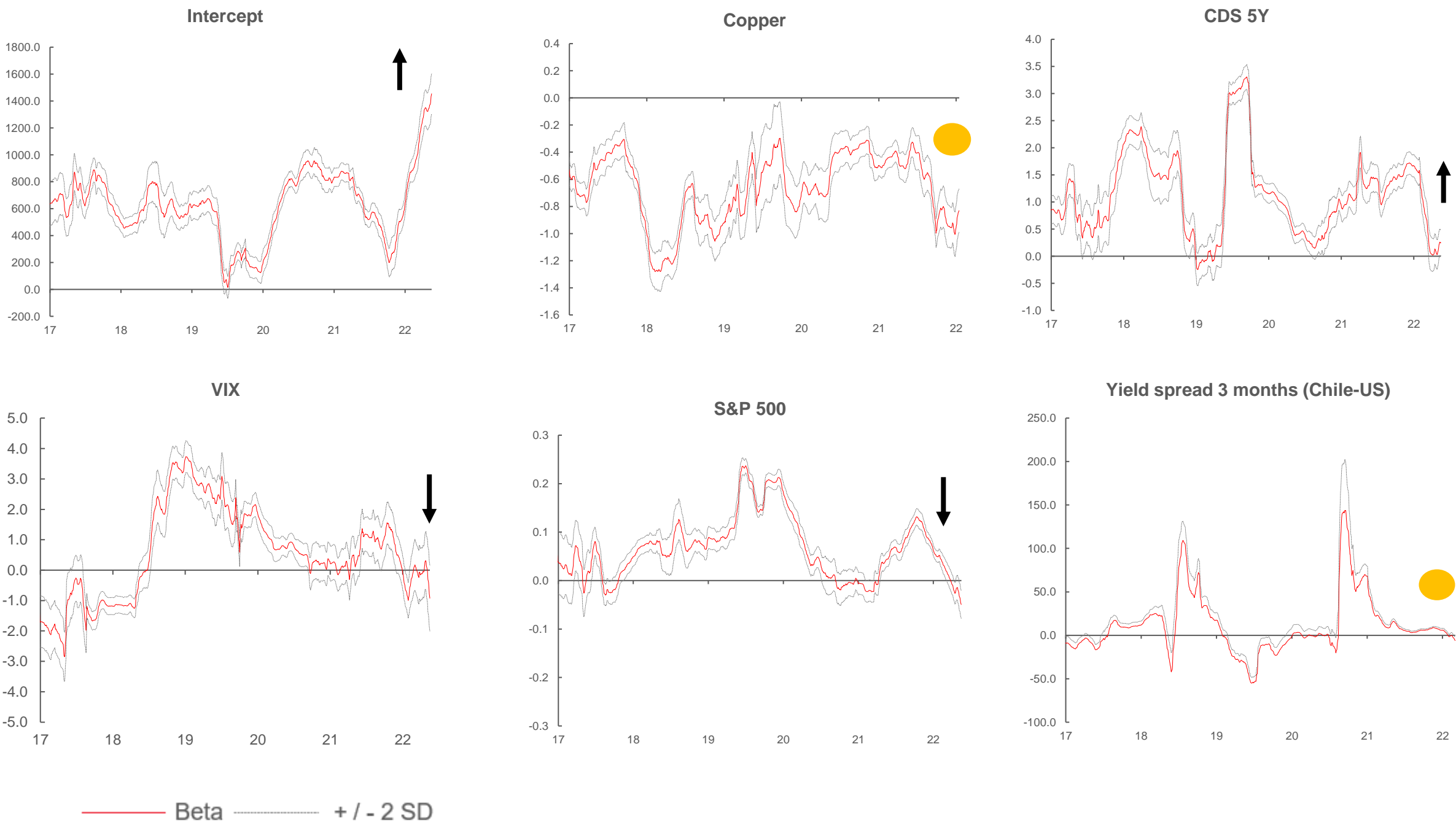


Sources: Bloomberg, Scotiabank Economics.

CLP Short-term /Rolling Regression Betas:

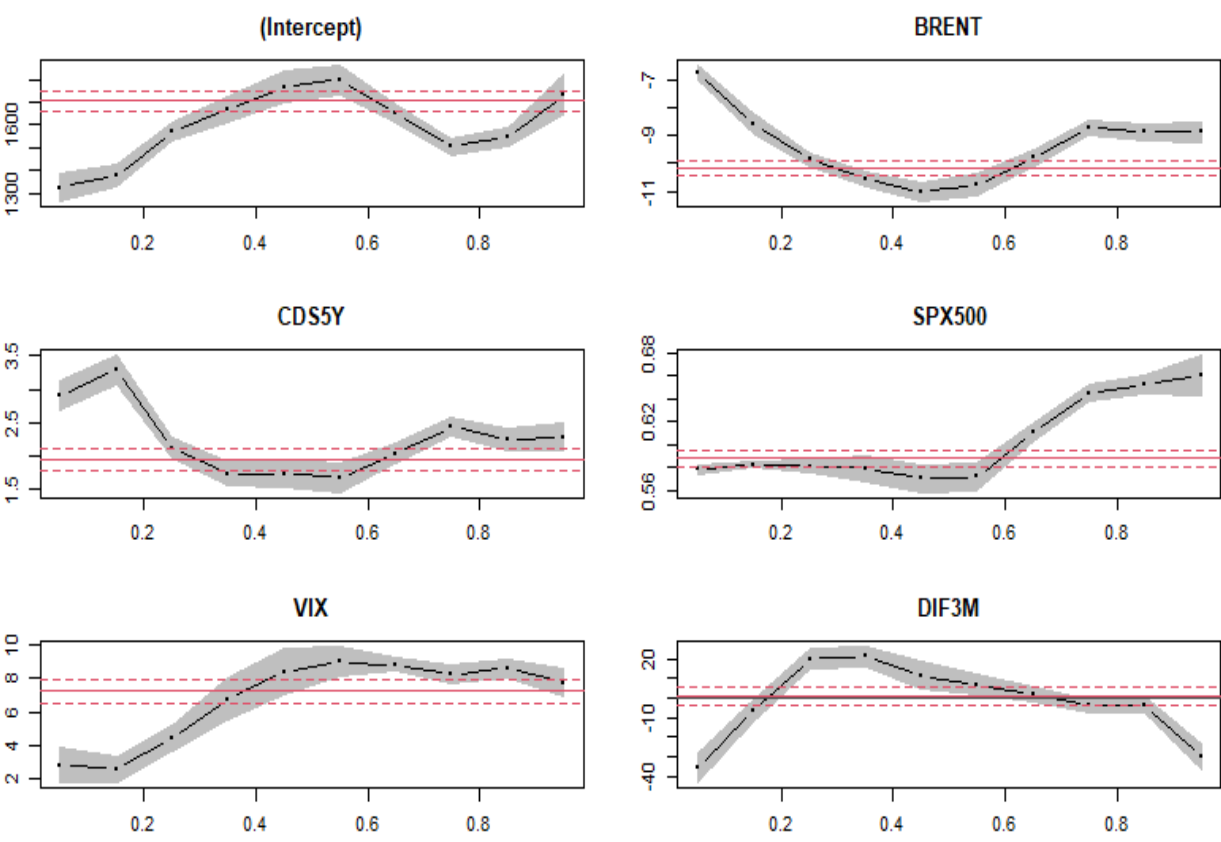
Main changes during the month are represented by the arrows

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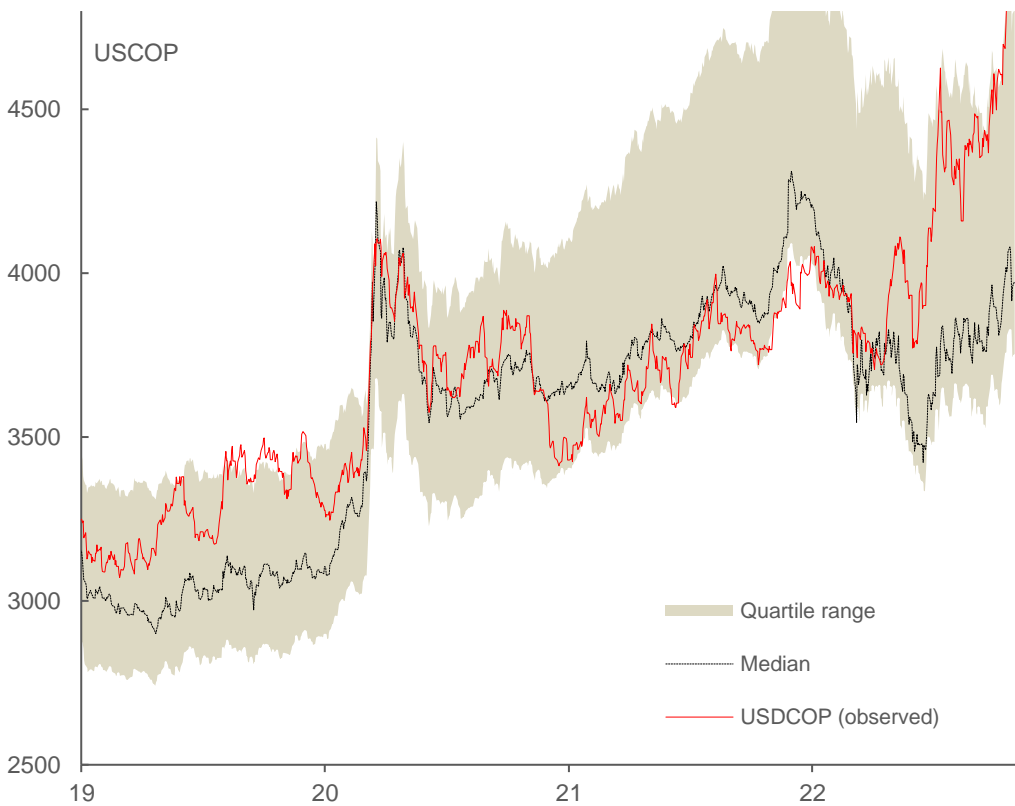


COP Long-term Model: According to the results, the Colombian Peso is undervalued relative to its long-term fundamentals and short-term fitted value. In October communication mistakes lead to strong volatility in local assets. The COP reached its historical weakest levels, and the idiosyncrasy risk premium is becoming more permanent over time. There is not a clear trigger to ease the negative pressure in the market. In the meanwhile, the COP looks attractive to every currency in the region.

Quantile Plot



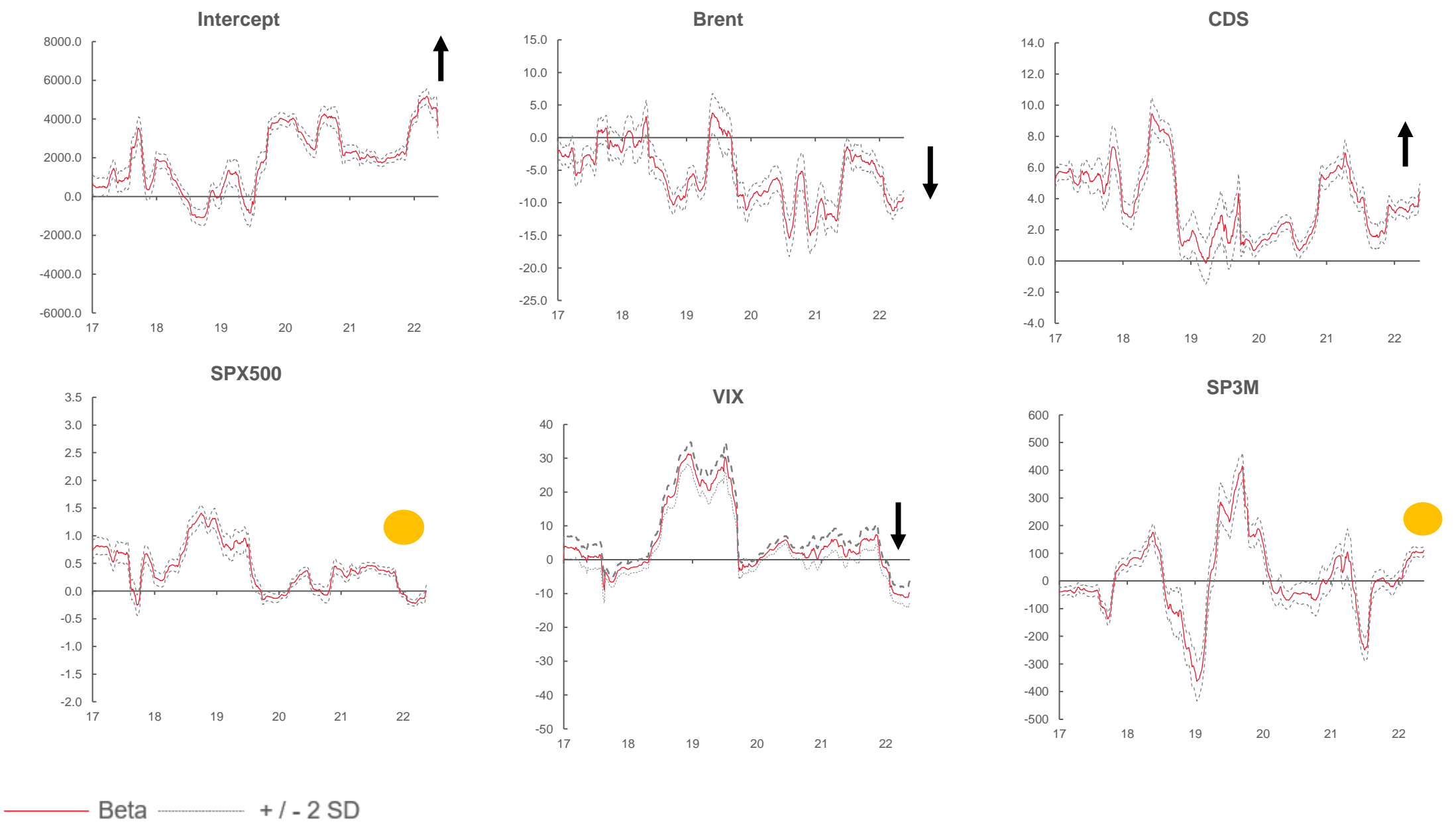
USDCOP vs Quant Reg Fitted values



Sources: Scotiabank Economics.

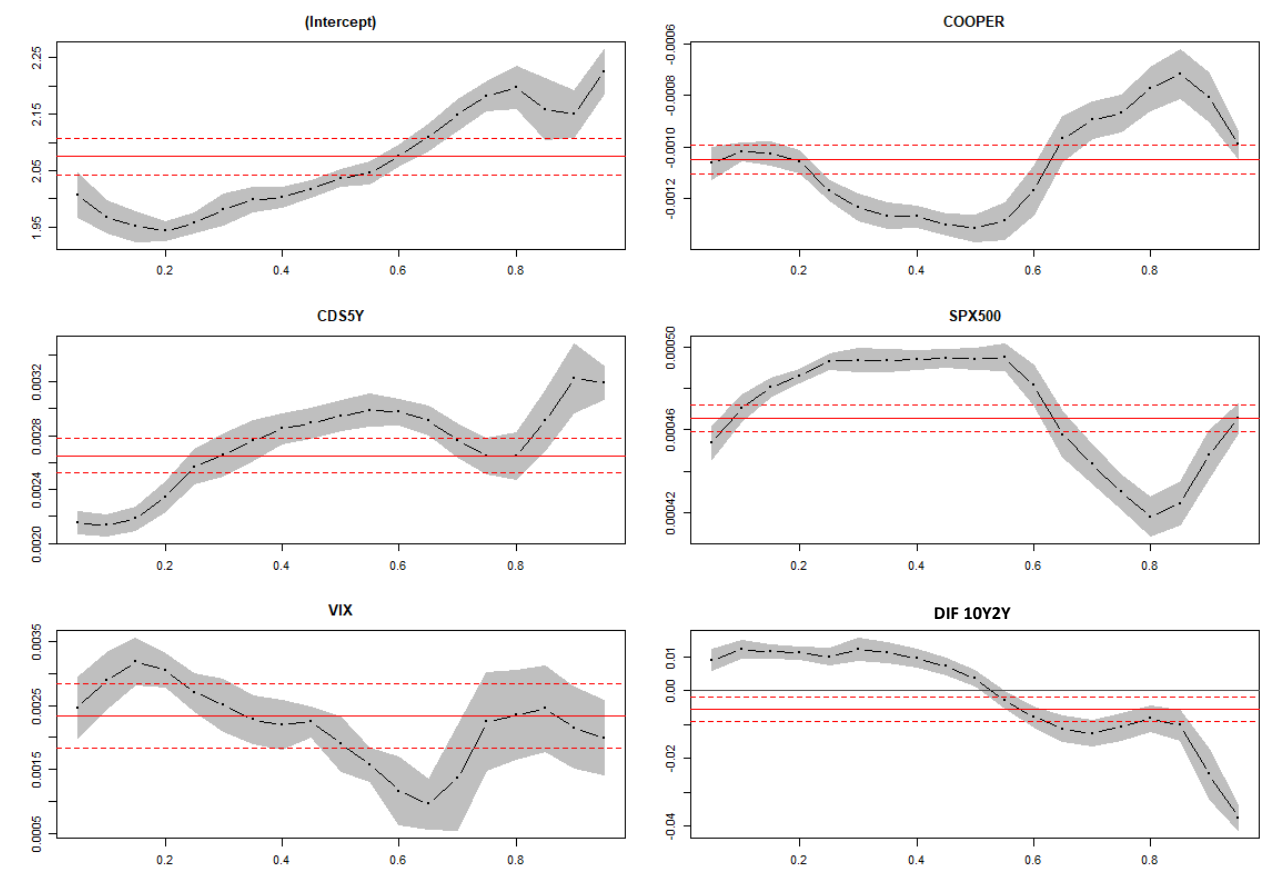
COP Short-term Drivers/Rolling Regression Betas:

Main changes during the month are represented by the arrows ↓ Lower sensitivity ↑ Higher Sensitivity ● Unchanged

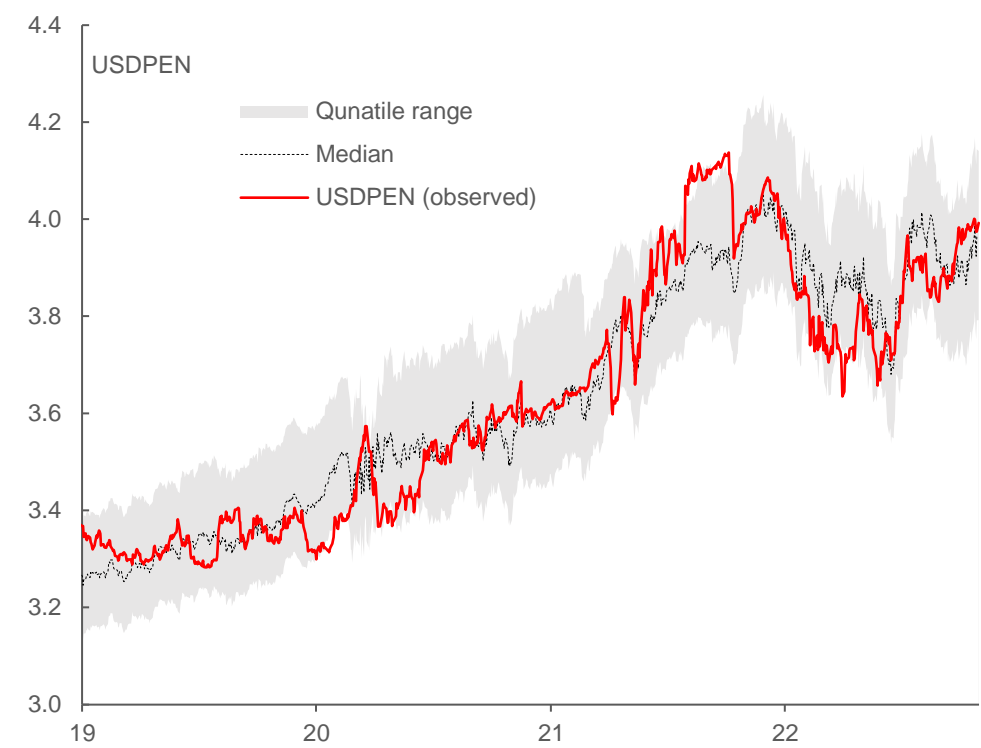


PEN Long-term Model: PEN trade in the median of the long-term model and close to the short-term model. According with the short-term model, sensitivity to international volatility increased, while the rest of parameters were broadly stable. In October the currency trade in a 3.95 to 4 soles. In November 10, the central bank is expected to hike the rate by 25 bps to 7.25%, as it would narrow the rate differential vs the Fed it would contribute for a moderate weakening in the currency.

Quantile Plot



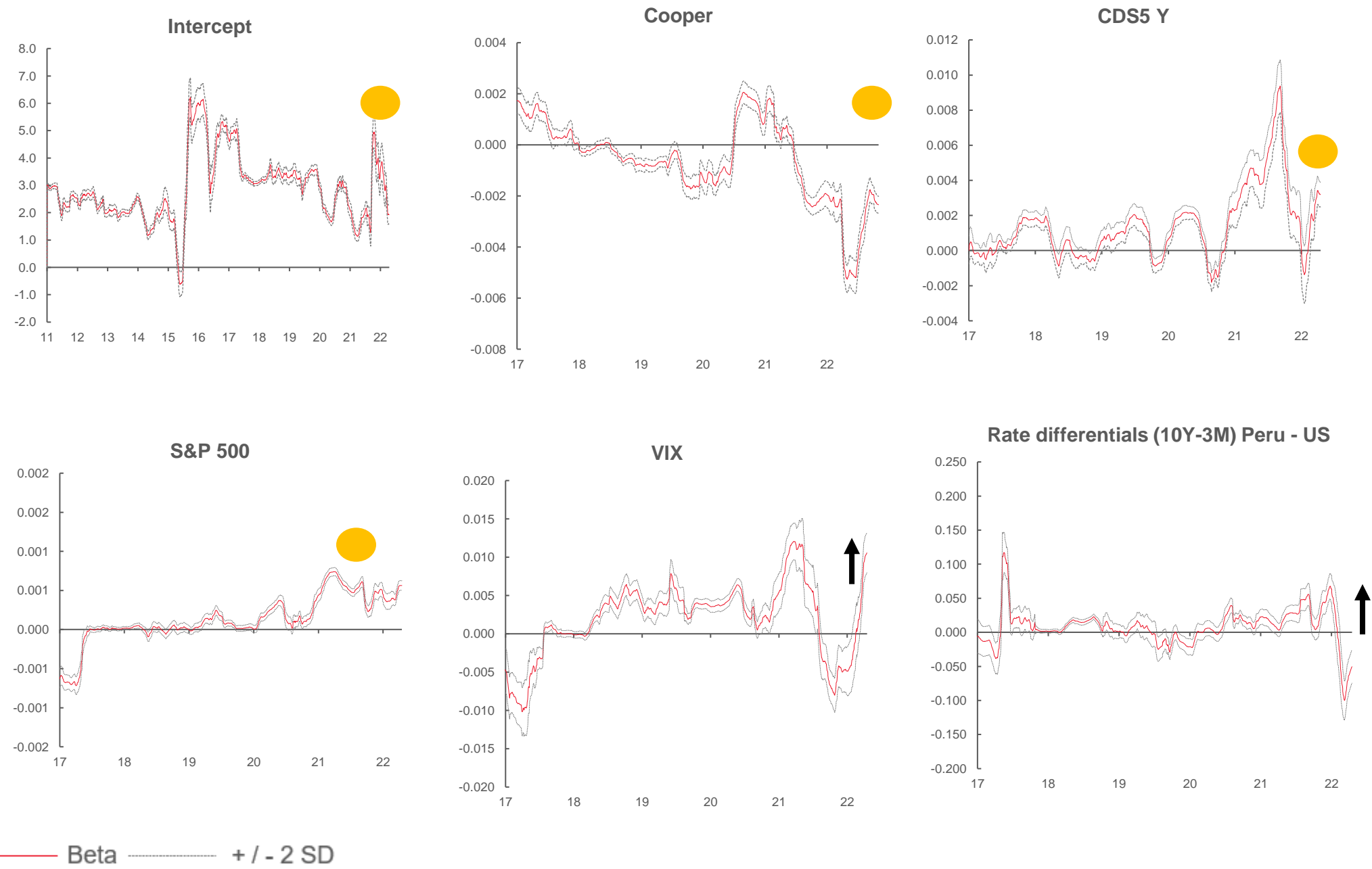
USDPEN vs Quant Reg Fitted values



Sources: Bloomberg, Scotiabank Economics.

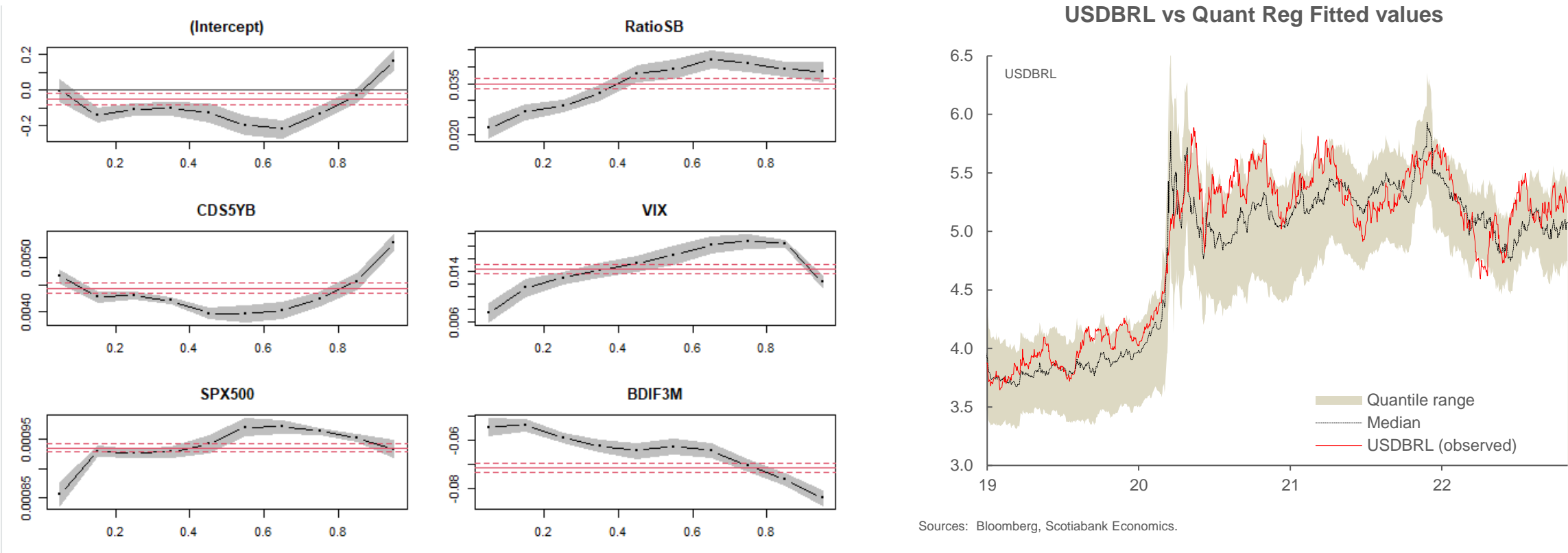
PEN Short-term Drivers/Rolling Regression Betas:

Main changes during the month are represented by the arrows ↓ Lower sensitivity ↑ Higher Sensitivity ● Unchanged



BRL Long-term Model: In October, the BRL appreciated amid expectations for a tight presidential runoff in Brazil. That said, BRL remained close to fair value in the short-term model while trading in a relatively high percentile according to the long-term model. Sensitivity to local risk metrics and commodity prices continued to dominate, along with increased sensitivity to international volatility. The central bank affirmed the pause in the hiking cycle and rate differentials vs. the US will narrow which would limit the space for a stronger currency in the medium term.

Quantile Plot

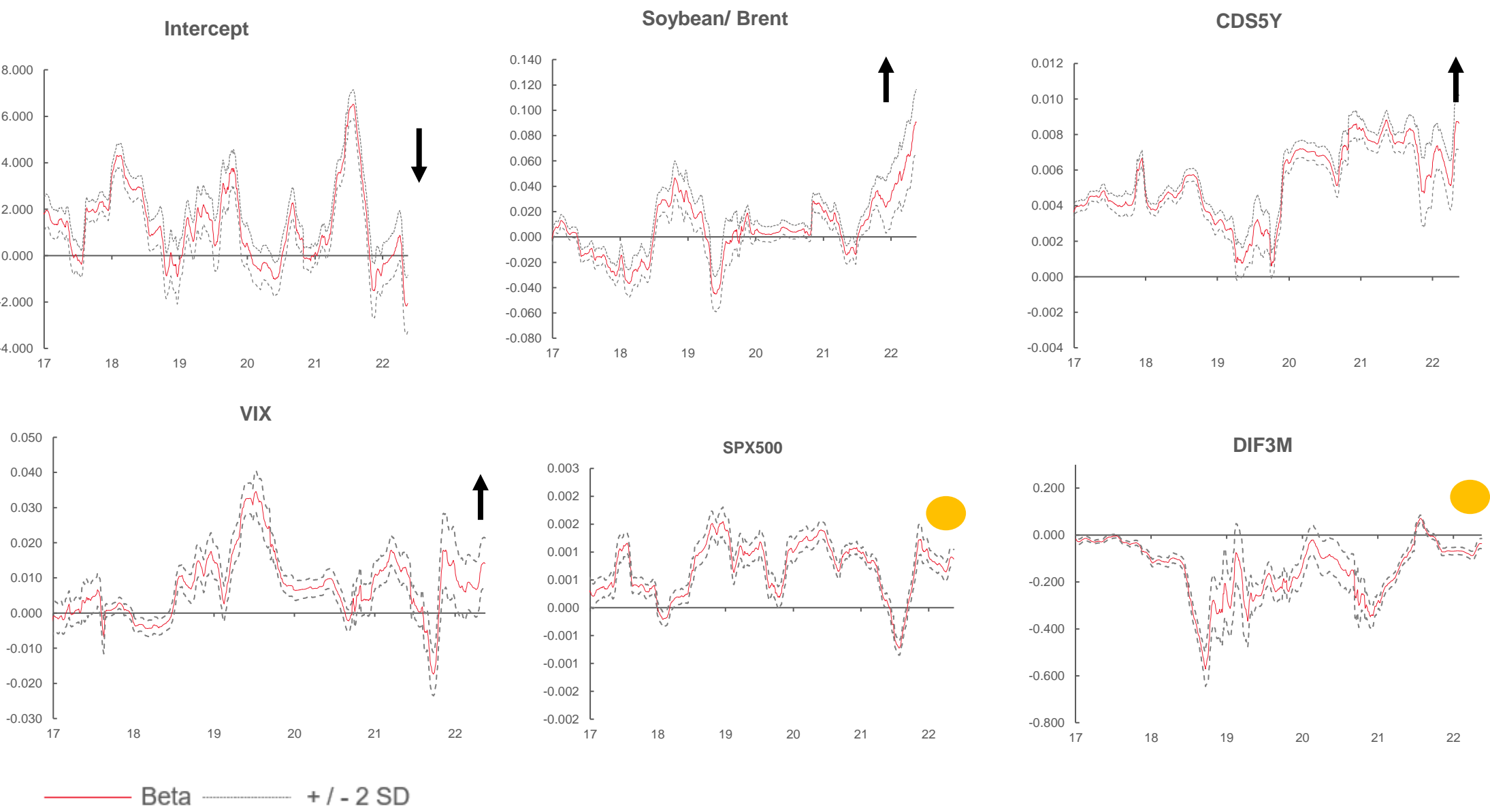


BRL Short-term drivers/Rolling Regression Betas:

Main changes during the month are represented by the arrows

↓ Lower sensitivity ↑ Higher Sensitivity ● Unchanged

Rolling Regression Betas:



Model specification after variable selection:

Variable selection was conducted through stepwise methods, verifying the correlation structures among the variables. The initial pool of variables included traditional explanatory variables from the literature, such as interest rate differentials, as well as variables related to the yield curve, liquidity, and risk factors. In the end, our common framework has three big variable blocks: the first is related to the external sector (often a commodity price), the second is related to a nominal interest rate differential, and the third is related to risk metrics. For every currency pair we analyze , we used linear regressions to choose the explanatory variables that would go into the model. Our data set starts in 2010, which leaves out the significant noise of the great financial crisis of 2008.

$$USDMXN = \alpha + \beta_1(\tau)Brent + \beta_2(\tau)5yCDS + \beta_3(\tau)S\&P500 + \beta_4(\tau)POLUNTUS + \beta_5(\tau)EMCURREINDEX + \beta_6(\tau)Dif10Y3M$$

*POLUNTUS: Economic Policy Uncertainty Index

*EMCURREINDEX: JP Morgan Emerging Market Currency Index

*Dif 10Y3M: Slope 10Y-3M Mexico – Slope 10Y -30M US

$$USDCLP = \alpha + \beta_1(\tau)Cooper + \beta_2(\tau)5yCDS + \beta_3(\tau)S\&P500 + \beta_4(\tau)VIX + \beta_5(\tau)Dif3M$$

*Dif 3M = Spread Yield 3M Chile - Yield 3M US

$$USDCOP = \alpha + \beta_1(\tau)Brent + \beta_2(\tau)5yCDS + \beta_3(\tau)S\&P500 + \beta_4(\tau)VIX + \beta_5(\tau)Dif3M$$

*SP3M = Spread Yield 3M Colombia - Yield 3M US

$$USDPEN = \alpha + \beta_1(\tau)Cooper + \beta_2(\tau)5yCDS + \beta_3(\tau)S\&P500 + \beta_4(\tau)VIX + \beta_5(\tau)Dif10Y2Y$$

*Dif 10Y3M = Yield curve slope 10Y-3M Peru - Yield curve slope 10Y-3M US

$$USDBRL = \alpha + \beta_1(\tau)Soybean/Brent + \beta_2(\tau)5yCDS + \beta_3(\tau)VIX + \beta_5(\tau)S\&P500 + \beta_5(\tau)DIF\ 3M$$

*DIF 3M = Spread 3M Brazil - Yield 3M US

Relationship between the variables in the model

	USDMXN
Brent	The relationship with oil is negative, which means that on average, the higher the price per barrel, the stronger the MXN. The results indicate that for conditional percentiles below 50, the correlation with MXN is lower than what the linear regression would imply. The strongest correlation with MXN appears to be around the 70 percentile of conditional distribution.
CDS	The relationship with the 5Y CDS is positive, which means that on average, the higher the credit-risk perception, the weaker the currency. In this case, the correlation between the variables increases in higher percentiles.
S&P	The results of the study show that despite the negative relationship that prevails in the current regime, where risk off cycles mean depreciation of MXN along with losses in the stock market, the structural relation between the S&P and MXN is statistically positive within our sample. This means that on average, the higher the S&P the weaker the MXN tends to be, which is in line with the predominantly positive correlation between the S&P and the DXY.
Poluntus (Economic Policy Uncertainty Index)	The sign of the coefficient confirms the intuitive relationship between both variables, where on average, the higher the political noise, the weaker the MXN.
Emcurrindex (JP Morgan Emerging Market Currency Index)	The negative sign indicates that on average, the stronger the EM currencies are, the stronger MXN is too, denoting that the currency is positively correlated with the broad sentiment and risk appetite prevailing in the market.
DIF10Y3M (10Y-3M Mexico – Slope 10Y -30M US)	We found that the steepness of the Mexican curve, relative to the steepness of the US curve had a stronger explanatory power than the interest rate differential by itself. The positive sign means that on average, the steeper Mexican curve is relative to the Treasury curve, the weaker the currency. This could be explained by the fact that in periods of stress mostly explained by idiosyncratic factors, such as inflation risk or higher perception of vulnerability in the fiscal accounts, the longer end of the local curve tends to suffer more, dragging down the MXN with it.

ANNEX: Extended Results and References

Relationship between the variables in the model

	USDCLP	USDPEN
Cooper	The relationship with copper is negative, which means that on average, the higher the price per ton, the stronger the CLP. The results indicate that for conditional percentiles below 60, the correlation between CLP and copper is slightly lower than what the linear regression would say. The strongest correlation with CLP appears to be around the 90th percentile of the conditional distribution.	The relationship between copper and USD/PEN is negative, as it would be intuitively expected. The negative sign of the coefficient means that on average, the higher the price per ounce of copper, the stronger the PEN. The results indicate that for conditional percentiles below 50, the correlation with PEN is lower than what the linear regression would suggest. The strongest correlation with PEN is around the 80th percentile of the conditional distribution.
CDS	The relationship with 5-year CDS is positive, which means that on average, the higher the perception of credit risk, the weaker the currency. In this case, the correlation from the 30 to the 70 percentile is similar to that of a linear regression	The relationship with 5-year CDS is positive, which means that on average, the higher the perception of credit risk, the weaker the currency. In this case, the correlation is highest at the 90th percentile.
S&P	The relationship with the international risk component is positive and at the 90th percentile it coincides with the linear regression. Interestingly, the results of the study show that despite the negative relationship that prevails in the current regime, where risk off cycles mean depreciation of EM currencies along with losses in the stock market, the structural relation between the S&P and CLP is positive within our sample. This means that on average, the higher the S&P the weaker the CLP tends to be, which is in line with the predominantly positive correlation between the S&P and the DXY.	The relationship with the international risk component is positive and at the 90th percentile it is explained as a linear regression. Although between the 30th and 50th percentiles there is a higher correlation. Interestingly, the results suggests show that despite the negative relationship that prevails in the current regime, where risk off cycles mean depreciation of EM currencies along with losses in the stock market, the structural relation between the S&P and PEN is statistically positive within our sample. This means that on average, the higher the S&P the weaker the PEN tends to be, which is in line with the predominantly positive correlation between the S&P and the DXY.
VIX	We use the VIX as a proxy of sentiment and/or risk aversion in the global markets. The quantile regression shows that there is a positive relationship between the VIX and CLP, such that, on average, the higher the volatility, the weaker the Chilean Peso, which is in line with the intuitive relationship. For this variable, a positive and stronger relationship is presented from the 70th percentile.	We use the VIX as a proxy of sentiment and/or risk aversion in the global markets. The quantile regression shows that there is a positive relationship between the VIX and PEN, such that, on average, the higher the volatility, the weaker the Peruvian Sol, which is in line with the intuitive relationship. For this variable, the 60th percentile has the lowest level of correlation.
DIF10Y2Y		The steepness of the Peruvian curve, relative to the steepness of the US curve has a stronger explanatory power than the rate differential. The positive sign means that on average, the steeper the local curve is relative to the USTs, the weaker the currency. This could be explained by the fact that in periods of stress mostly explained by idiosyncratic factors such as inflation risk or higher perception of vulnerability in the fiscal accounts, the longer end of the local curve tends to suffer more, and PEN depreciates.
DIF3M	In the case of Chile, we found that the short-term rate differential with the US had a larger explanatory power than the relative shape of the curves. The negative sign means that on average, the wider the differential, the stronger the CLP, probably because it gets more attractive from a carry perspective.	

ANNEX: Extended Results and References

Relationship between the variables in the model

	USDBRL	USDCOP
Brent or Soybean/Brent ratio	The relationship with oil is negative, which means that on average, the higher the price of a barrel, the stronger the BRL. The results indicate that for conditional percentiles below 50, the correlation with BRL is slightly lower than what linear regression would imply. The strongest correlation with BRL appears to be around the 80th percentile of the conditional distribution.	The relationship between COP and oil is negative, which means that on average, the higher the price per barrel, the stronger the COP. The results indicate that for conditional percentiles below and above 50, the correlation with COP is lower than what the linear regression would imply. The strongest correlation with COP appears to be around the median of conditional distribution.
CDS	The relationship with 5-year CDS is positive, which means that on average, the higher the perception of credit risk, the weaker the currency. In this case, the correlation between the variables increases at the 70th percentile.	The relationship of the currency with the 5Y CDS is positive, which means that on average, the higher the credit-risk perception, the weaker the currency. In this case, the correlation between the variables is higher close to the median.
S&P	The relationship with the US equity market is positive, which means that on average, the higher the S&P the weaker the BRL tends to be, which is in line with the predominantly positive correlation between the S&P and the DXY but differs from the currency regime where equities and EMFX tend to move in the same direction. The strongest correlation occurs at the 60th percentile.	The results show that despite the negative relationship that prevails in the current regime, where risk off cycles mean depreciation of COP along with losses in the stock market, the structural relation between the S&P and COP is statistically positive within our sample. This means that on average, the higher the S&P the weaker the COP tends to be, which is in line with the predominantly positive correlation between the S&P and the DXY.
VIX	With the volatility indicator, there is a positive relationship and from the 50th percentile on, it is higher than what the linear regression would imply.	We use the VIX as a proxy of sentiment and/or risk aversion in the global markets. The quantile regression shows that there is a positive relationship between the VIX and COP, such that, on average, the higher the volatility, the weaker the Colombian Peso, which is in line with the intuitive relationship. For this variable, the 50th percentile has the highest level of correlation.
DIF3M	In Brazil, the short-term rate differential with the US had a larger explanatory power than the relative shape of the curves. The negative sign means that on average, wider the differential, the stronger the BRL, probably as it gets more attractive from a carry perspective.	the short-term rate differential with the US had a larger explanatory power than the relative shape of the curves. Interestingly, the sign of the coefficient fluctuates along the different quantiles, while the OLS “beta” is zero. The negative sign of the coefficients on the highest and lower percentiles of the conditional distributions mean the that on average, the wider the differential, the stronger the COP probably as it gets more attractive from a carry perspective. For almost all quantiles in between, the relationship is positive, which might be the case when the widening of Colombian rates IS more related with a worsening idiosyncratic story (e.g. the deterioration of the fiscal accounts) that is negative for the currency.

A little more about quantile regression: The plots

To illustrate the advantages of quantile regression, **chart 1 shows the relation between the USDCLP and copper prices, with each of the lines representing a different quantile of the distribution.** Traditional regression analysis would not accurately capture the relationship between the variables, given that there are at least two distinct sets in the sample. In contrast, the method of quantile regression describes the whole set of data by dividing the conditional distribution in percentiles.

Chart 2 shows the quantile plot for CLP and copper and illustrates the parameter estimates and the 95% confidence range for each quantile. It shows clearly how the coefficients (the betas describing the relation between the CLP and cooper prices) change across the quantiles of the conditional distribution.

The red line in Chart 2 represents the beta of a traditional OLS method (which doesn’t change across quantiles), and the dotted red lines are the corresponding confidence intervals at 95%.

As for **the interpretation**, the negative sign on the Y-axis in Chart 2 implies that, on average, the higher the price per ounce of copper, the lower the level of USD/CLP (stronger CLP). Looking a bit closer, the results indicate that in lower quantiles (which coincide with CLP prices below 700 according to chart 1) there is a “more negative” association between the USD/CLP and copper, compared to what the linear regression would imply (red line in chart 2). In percentiles above ~65, however, the correlation with the currency starts to fade, until it is close to zero. Empirically, we could explain this by noting that the transition between 700 and 800 in CLP was mostly explained by idiosyncratic factors (the protests in 2019, the constitutional assembly, etc.) that had no empirical association with copper prices (see percentile 80 charts 1).

Finally, **chart 2.1** shows the median of the CLP value calculated by the model (black dotted line) along with the realized value of USD/CLP (solid red line). The gray shade represents the area containing the whole range of estimates of the quantile regression from percentiles 5 to 95.

Chart 1: Regression Model for Quantile Levels
0.05 , 0.25 , 0.50 , 0.60, 0.70, 0.80 and 0.95

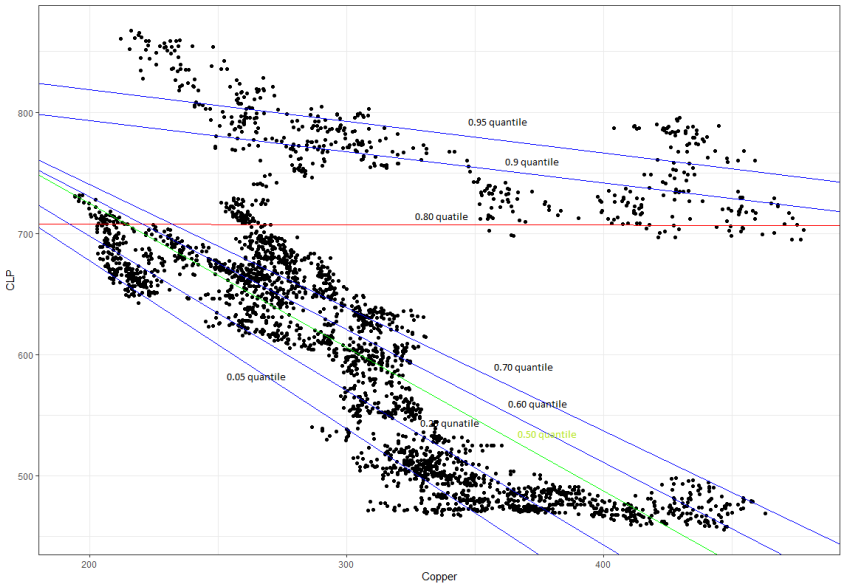


Chart 2: Quantile Plot
CLP = f(Copper)

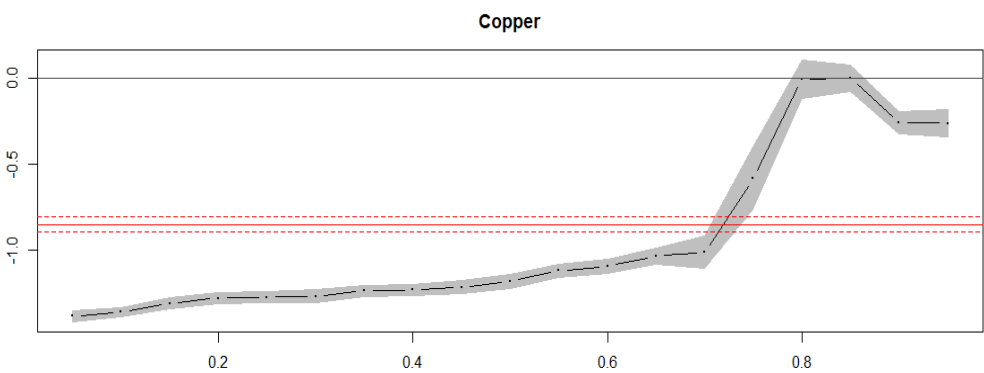
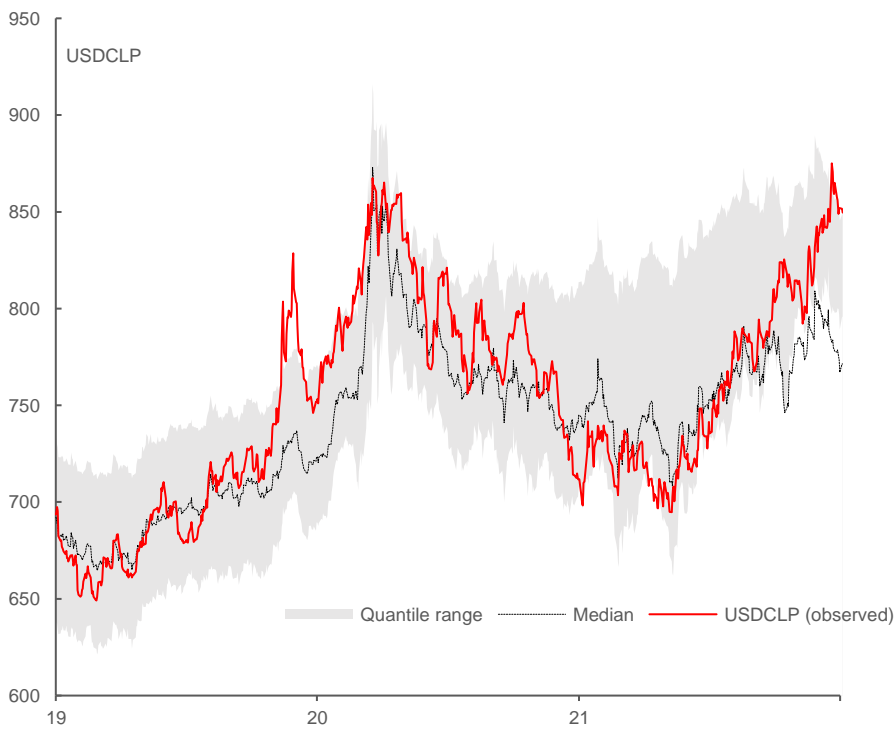


Chart 2.1: USDCLP vs Quant Reg Fitted values



Sources: Bloomberg, Scotiabank Economics.

Comparison of Linear Regression and Quantile Regression	
Linear Regression	Quantile Regression
Predicts the conditional mean $E(Y X)$	Predicts conditional qunatiles $Q_{\tau}(Y X)$
Applies when n is small	Needs sufficient data
Often assumes normality	Is distribution agnostic
Does not preserve $E(Y X)$ under transformation	Preserves $Q_{\tau}(Y X)$ under transformation
Is sensitive to outliers	Is robust to response outliers
Is computationally inexpensive	Is computationally intensive

Source: Robert N. Rodriguez and Yonggang Yao, SAS Institute Inc. Paper SAS525-2017

*To learn more about quantile regression, please see the [Original paper](#) and this [Link for applications](#)

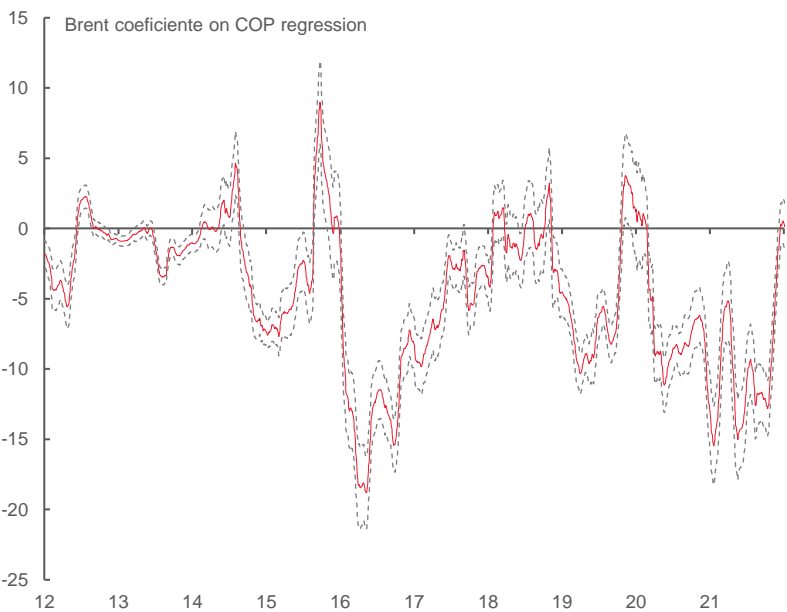
Capturing short-term effects

Mindful that deviations from theoretical values can be persistent, we supplement the “structural fair value” results with the analysis of rolling coefficients to perform a shorter-term examination of the relative importance of each explanatory variable at different points in time. This will help to identify the regime we are in and hence, to guide the approach we should take to better interpret the results.

Chart 3 shows an example of the rolling coefficient analysis. The solid red line represents the beta coefficient through time and the gray dotted lines delimit the area between +/- 2 standard deviations. When zero is within that range, the variable is statistically no significant.

There is an important caveat that we wish to highlight: the aim of this piece and its subsequent updates is to provide a reference and input to more complete analysis of the currencies in the Pacific Alliance. **It is not intended as a trading tool that translates directly into specific trade ideas.**

Chart 3: Example of the Rolling coefficient analysis. Brent
coefficiente on COP regression



Sources: Scotiabank Economics.

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