BofA SECURITIES

Emerging Insight

Mexico: Consumption is outpacing GDP

19 November 2023

GEM Fixed Income Strategy & Economics
Global

Carlos Capistran
Canada and Mexico Economist
BofAS
+1 646 743 2921
carlos.capistran@bofa.com

David Hauner, CFA >>
Global EM FI/FX Strategist
MLI (UK)
david.hauner@bofa.com

Claudio Irigoyen
Global Economist
BofAS
claudio.irigoyen@bofa.com

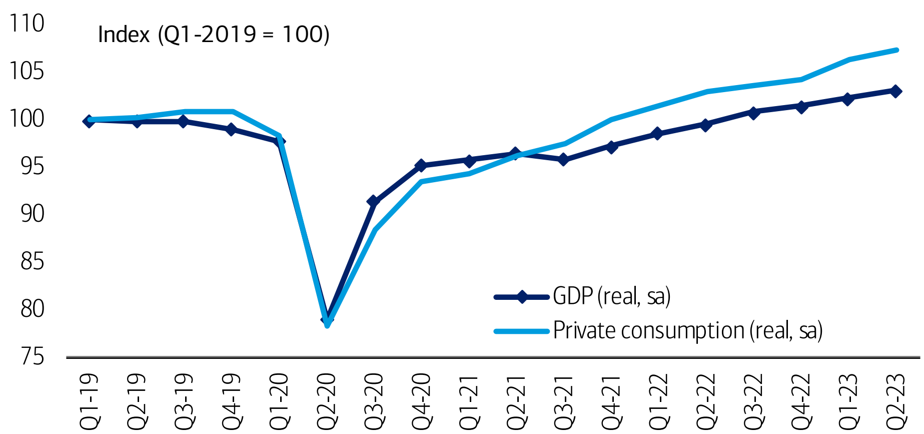
See Team Page for List of Analysts

Key takeaways

- Private consumption has grown almost twice as much as GDP since 2021: consumption 14% versus GDP 8%, in real terms.
- Consumption determinants remain strong: wage mass 10% yoy (real), credit for consumption 13% yoy (real), remittances 8% yoy.
- Consumption is likely to outpace GDP again in 2024. This should continue to pressure domestic inflation and interest rates.

By Carlos Capistran

Chart of the day: Real GDP and real private consumption in Mexico
Private consumption has outpaced GDP since 2021



Source: BofA Global Research, INEGI

BofA GLOBAL RESEARCH

Mexico: Consumption is outpacing GDP

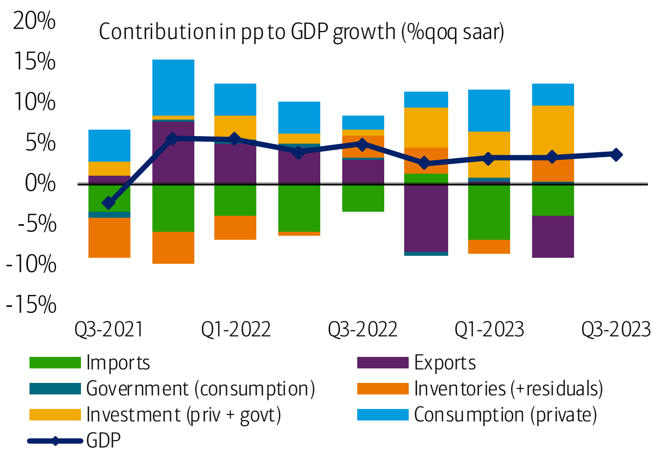
Private consumption has grown 14% in real terms since 1Q 2021. In the same period GDP grew 8% (see the Chart of the day). Most consumption determinants remain robust, pointing to further consumption strength ahead: (1) the real wage mass is growing 10% yoy, as formal (base) real wages are growing 6.1% yoy and formal job employment is growing 3.4% yoy (Social Security Institute data); (2) credit for consumption is growing 13.7% yoy in real terms; (3) remittances are increasing 8% yoy in dollar terms (although they are falling in pesos); and (4) consumer confidence rose at the margin in October. We expect both GDP and consumption to decelerate in 2024, but we expect consumption to continue outpacing GDP, continuing to pressure prices.

Consumption is outpacing GDP

Consumption has grown almost twice as much as GDP

GDP has been growing above trend since the end of 2021. Average growth since 1Q 2022 to 3Q 2023 has been 3.9%, above average growth in the last three decades (2.5%). Growth in part has been a rebound from the pandemic, but these are very good rates of growth nonetheless. And one GDP component that has had an important contribution is private consumption (Exhibit 1). Consumption has recovered strongly since the pandemic (Exhibit 2). The last available data (August) shows 4.2% yoy growth in real terms.

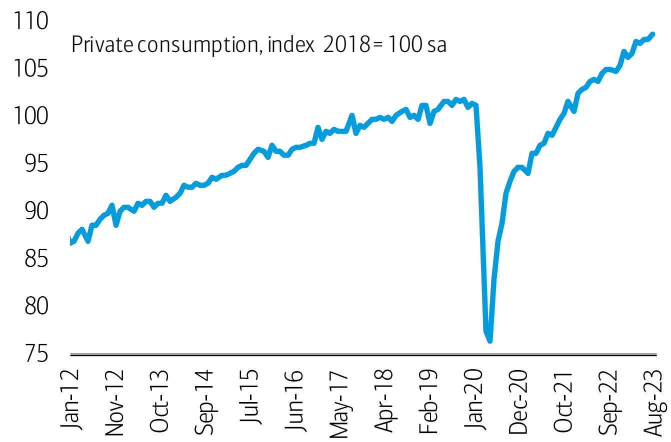
Exhibit 1: GDP contributions
Consumption has been one important contributor to GDP growth



Source: BofA Global Research, INEGI

BofA GLOBAL RESEARCH

Exhibit 2: Private consumption index
Consumption is growing more strongly than pre-pandemic



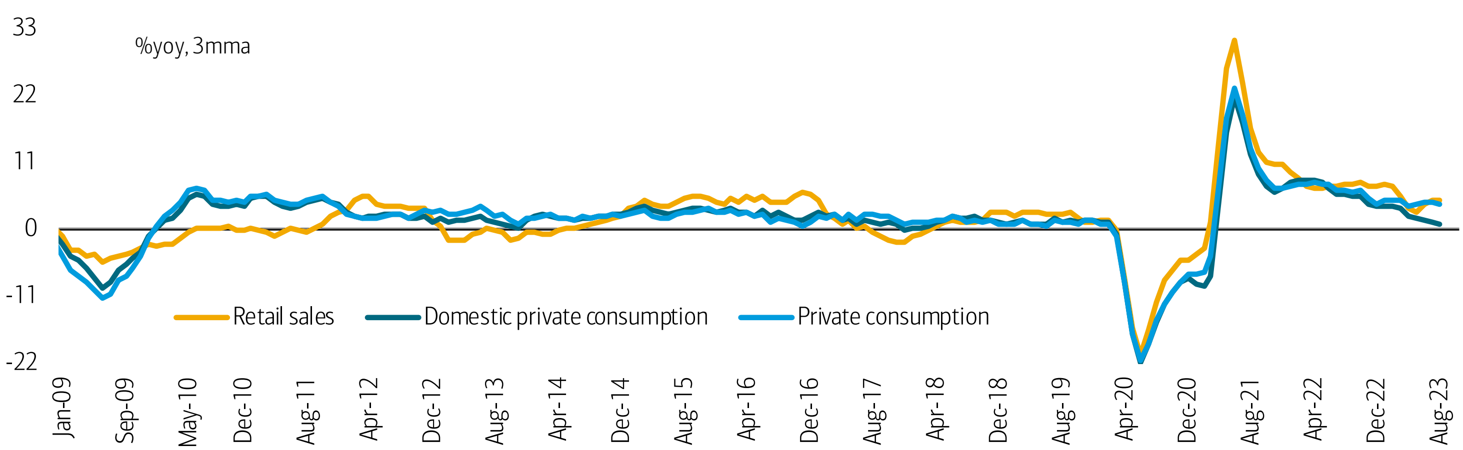
Source: BofA Global Research, INEGI

BofA GLOBAL RESEARCH

Consumption still going strong, mostly

Private consumption and retail sales continue to be strong in Mexico. Private consumption grew 4.1% yoy in real terms in August, while retail sales grew 4.7% yoy in real terms in August (Exhibit 3, using 3mma). However, domestic private consumption has decelerated (0.9% yoy in real terms, 3mma), which means that consumption of imported good has been strong, most likely driven by the real appreciation of the peso in recent quarters. That could also explain in part the difference in growth rates between consumption and GDP using national accounts. It also highlights that there could be downside risks to consumption in the coming months.

Exhibit 3: Private consumption indicators
Consumption has decelerated but in general continues to growth at above-trend rates.



Source: BofA Global Research, INEGI

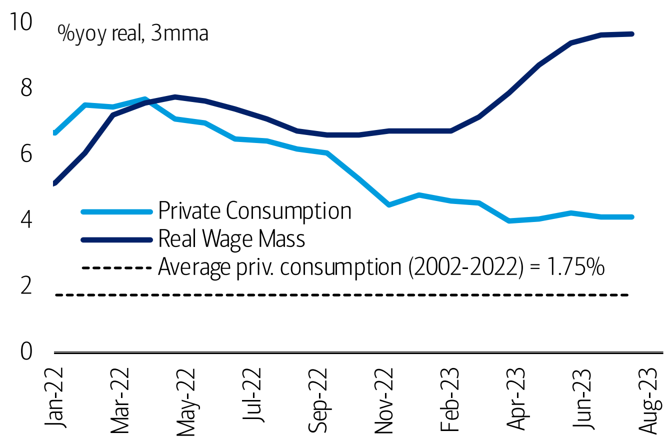
BofA GLOBAL RESEARCH

Consumption determinants remain strong

Real wage mass growth is the highest in decades

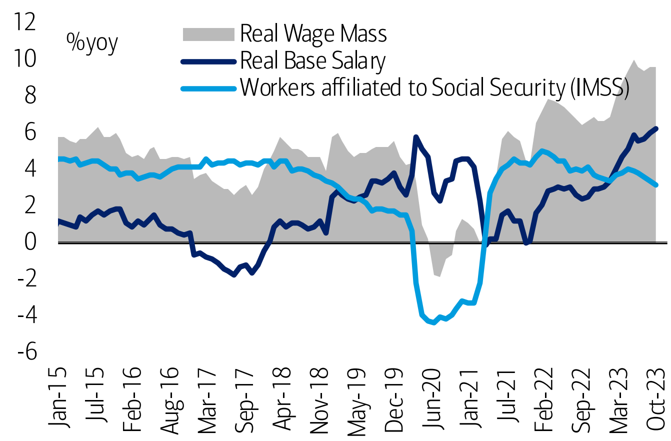
The real wage mass is growing almost 10% yoy in real terms, well above consumption, which indicates that there is support for consumption to continue for some time in Mexico (Exhibit 4). Looking at the determinants of real wage mass, we note that base real salary keeps growing, in part based on AMLO increasing the minimum wage well above inflation for many years now. Employment also remains strong. Formal employment is increasing 3.6% yoy, according to the Social Security Institute (IMSS) (Exhibit 5).

Exhibit 4: Real wage mass and private consumption comparison
Real wages have surged throughout 2023



Source: BofA Global Research, INEGI, IMSS
BofA GLOBAL RESEARCH

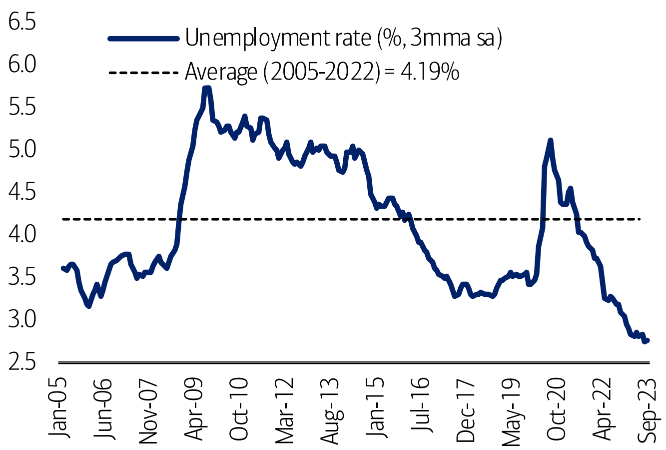
Exhibit 5: Real wage mass
The increase in real wage mass has been stronger than before the pandemic



Source: BofA Global Research, IMSS
BofA GLOBAL RESEARCH

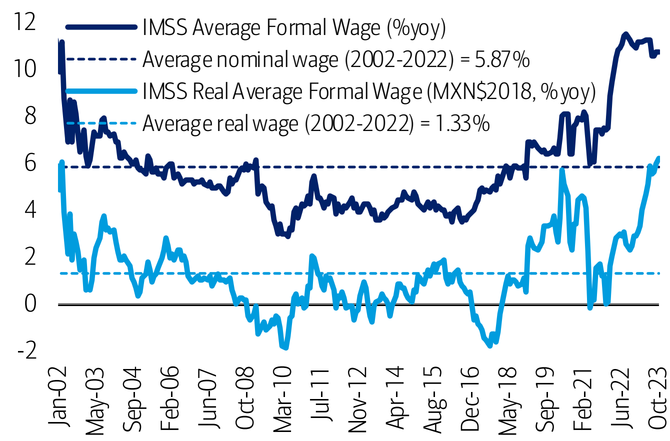
The unemployment rate is at its lowest level ever, which means that the impulse from the labor market to consumption is from not only the formal sector but also the informal sector, which has a tight labor market (Exhibit 6). Other measures of wages also show that real wage growth is supporting the real wage mass (Exhibit 7).

Exhibit 6: Unemployment rate
Unemployment is in all-time low at 2.7%, 3mma seasonally adjusted (sa)



Source: BofA Global Research, INEGI
BofA GLOBAL RESEARCH

Exhibit 7: Nominal and real formal wages' growth
Both metrics are way above their historical growth averages

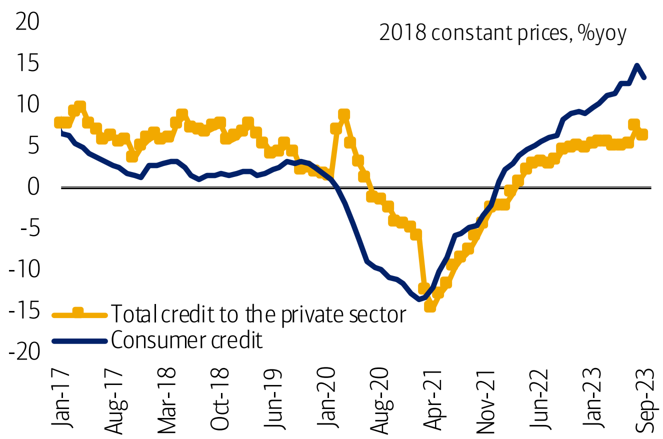


Source: BofA Global Research, IMSS
BofA GLOBAL RESEARCH

Credit for consumption is booming

Credit for consumption is growing at 13.4% yoy in real terms, well above total credit to the private sector (Exhibit 8). Credit for consumption is booming despite interest rates in Mexico being at a very high level (overnight rate at 11.25%). The real rate is quite high at above 7% (real ex-ante), but credit for consumption is growing double digits. It seems that even though interest rates are at a high level, monetary policy is not necessarily tight (or decelerating the economy). Credit will likely keep supporting consumption for some time (Exhibit 9).

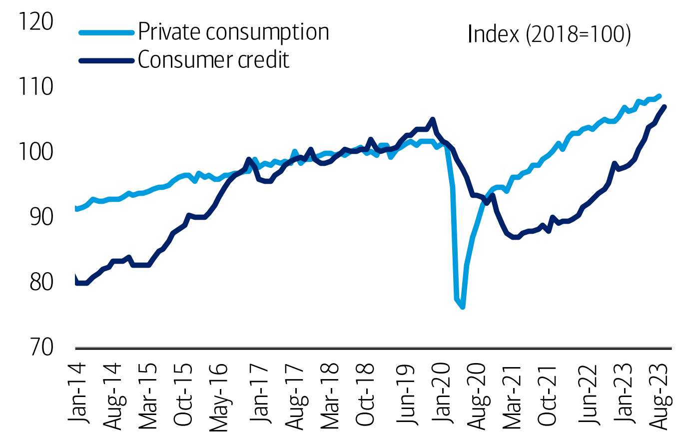
Exhibit 8: Total and consumer credit growth
Consumer credit is growing faster than total credit...



Source: BofA Global Research, Banco de Mexico

BofA GLOBAL RESEARCH

Exhibit 9: Private consumption and consumer credit
... and helps to explain the strong pace of private consumption



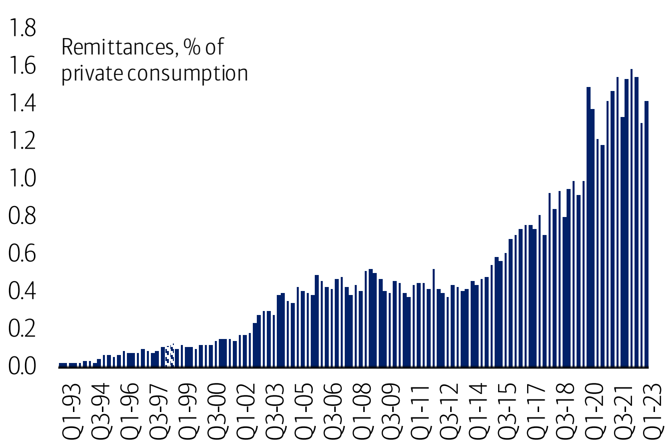
Source: BofA Global Research, INEGI, Banco de Mexico

BofA GLOBAL RESEARCH

Remittances in dollars remain strong

Remittances are increasingly important for consumption (Exhibit 10). Remittances have increased significantly since the pandemic and remain strong, with strong growth in dollars, although in pesos, they are decelerating given the strong peso (Exhibit 11, Exhibit 12). The latter is one factor that could decelerate consumption going forward, but that in part would depend on what the peso does (we expect the peso to weaken in the coming months). The increase in remittances has been largely driven by an increase in average remittances (Exhibit 13), probably due to the tight labor market in the US. So, remittances are likely to decelerate once the US does.

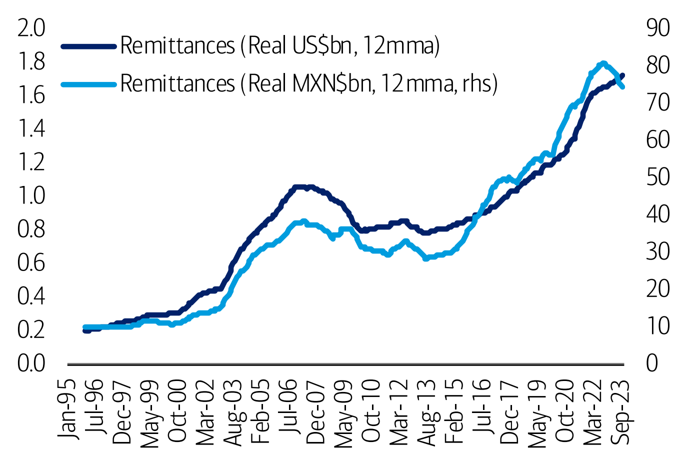
Exhibit 10: Remittances as % of private consumption
Remittances have gained relevance for private consumption since the pandemic



Source: BofA Global Research, Banco de Mexico

BofA GLOBAL RESEARCH

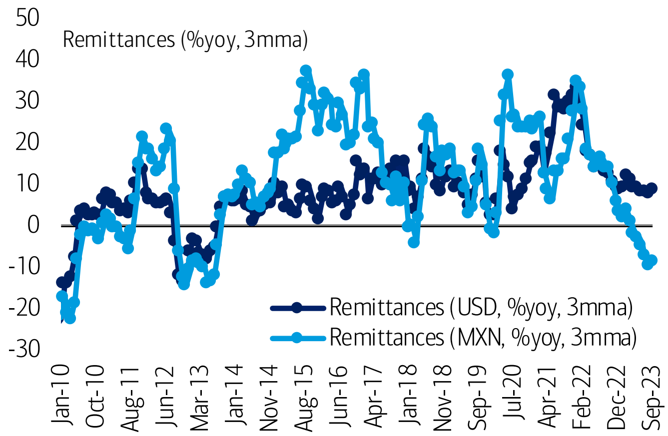
Exhibit 11: Remittances in dollars and pesos
Remittances in dollars are decelerating but remain strong...



Source: BofA Global Research, Banco de Mexico

BofA GLOBAL RESEARCH

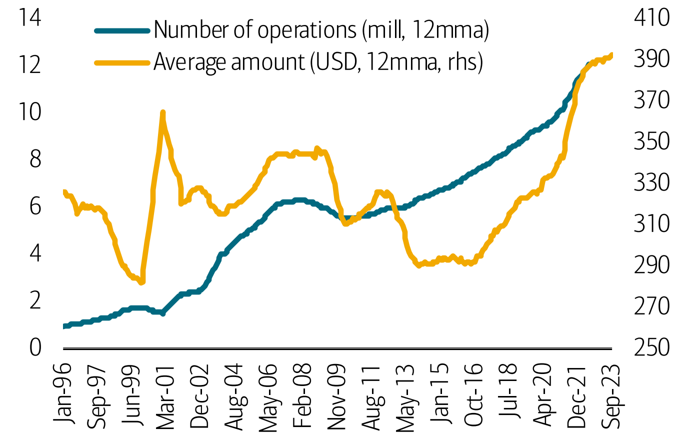
Exhibit 12: Remittances' growth in dollars and pesos
... unlike in pesos, which, due to a strong FX, are decreasing



Source: BofA Global Research, Banco de Mexico

BofA GLOBAL RESEARCH

Exhibit 13: Remittances' operations and average amount
Nonetheless, operations keep growing, and so is the average amount



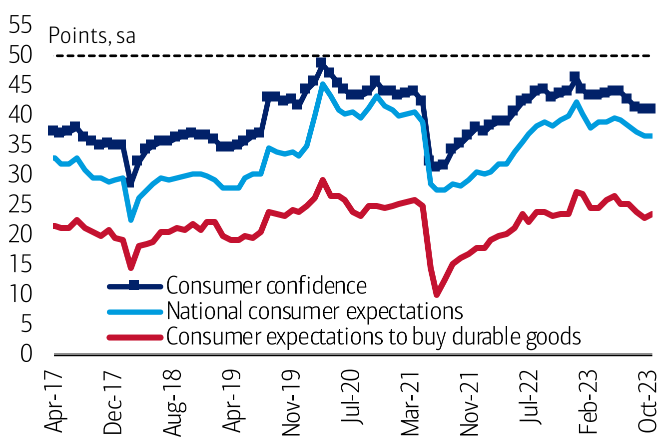
Source: BofA Global Research, Banco de Mexico

BofA GLOBAL RESEARCH

Consumer confidence is picking up

Consumer confidence is at historically high levels but has been decreasing in recent months. However, the most recent data points to an uptick, which could support consumption in the following months (Exhibit 14).

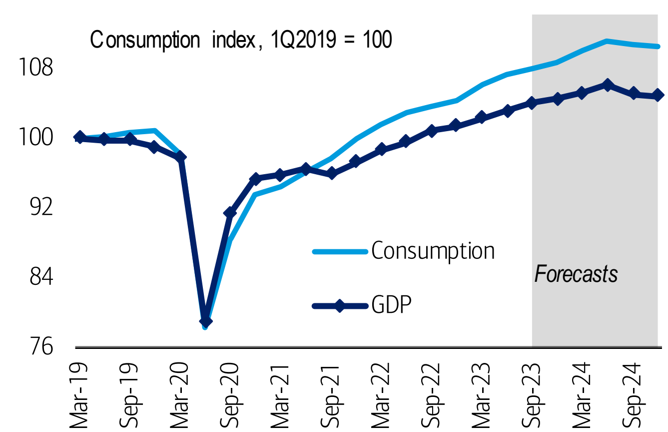
Exhibit 14: Consumer Confidence Index
Data points to a possible rebound of confidence in the coming months



Source: BofA Global Research, INEGI

BofA GLOBAL RESEARCH

Exhibit 15: GDP and consumption forecasts
We expect a stronger slowdown in GDP than in consumption in 2H 2024



Source: BofA Global Research estimates, INEGI

BofA GLOBAL RESEARCH

Consumption has room to go but should decelerate

We expect both GDP and consumption to decelerate in 2024, but we expect consumption to continue outpacing GDP (Exhibit 15). The main reason that we expect GDP to decelerate is our expectation that US GDP will decelerate. The main reason that we expect consumption to decelerate is that we expect the slowdown in GDP to soften the labor market. We also expect high interest rates in Mexico to eventually decelerate credit, and we expect remittances to decelerate as the US decelerates. We see balanced risks to consumption. Since consumption determinants remain strong and fiscal impulse is increasing (see the 11 September 2023 Mexico Watch), consumption could be stronger than what we expect. But domestic private consumption is decelerating and the US economy is also decelerating, which adds downside risks to our consumption outlook. Consumption growing faster than GDP should continue to put pressure on prices and hence on Banxico, in our view.

News and Views

Mexico: Mexico's Congress Approves Key Bill to Boost Company Listings

Carlos Capistran
+1 646 743 2921

Mexico's Congress approved a bill to reform the country's existing stock market law in a bid to spur more debt and equity listings. The reform aims to make it easier for smaller companies to sell debt or stock to institutional investors by streamlining regulations. It also allows for classes of shares with different voting rights, so-called dual-class shares, to entice family-controlled companies to go public. It also raises the threshold to oppose changes on a funds' bylaws to 20% of shareholders from 5%. The bill, which had been approved by the Senate in April, will now be sent to the president to be signed into law. To boost the investor pool and raise demand for local instruments, the bill will also create a new legal framework for local hedge funds.

- **To follow**: The reform will likely help deepen Mexico's capital and financial markets overall both on the demand and on the supply side (more hedge funds, more listings).

Mexico: Mexico Further Cuts its IMF Credit Line to US$35 Billion

Carlos Capistran
+1 646 743 2921

The International Monetary Fund (IMF) renewed its flexible credit line with Mexico for another two years while also reducing its size by about one-third as part of a strategy to cut costs. The precautionary credit line was scaled back to $35 billion, according to a statement published by Mexico's central bank and the Finance Ministry, down from a $50 billion previously. The IMF board approved its extension on November 15, mentioning Mexico's "robust" economic growth. Deputy Finance Minister Gabriel Yorio had said in early November that the government was considering cutting down the size of the line to reduce the annual fees paid to the IMF.

- **To follow**: With a smaller FCL, Mexico could consider increase its international reserves at Banxico. But we believe that is unlikely as Mexico has adequate levels of reserves according to most usual metrics. For instance, international reserves at US$ 205,262mn cover around 4 months of imports (the usual benchmark is 3 months).

Brazil: Economic activity below expectations in September

David Beker
+55 11 2188 4371

Natacha Perez
+55 11 2188 4127

Economic activity (IBC-Br Index) declined 0.06% month over month seasonally adjusted (momsa) in September, against -0.81% momsa in August (revised down from -0.77% momsa). The number was below our (+0.6%) and market expectations (+0.2%). In yoy terms, IBC-Br increased by 0.32% yoy, decelerating from 1.19% yoy in the previous month (revised down from 1.28% yoy). The statistical carry-over for 2023 is 2.64% for the IBC-Br. With September's IBC-Br, the domestic activity trajectory in 3Q23 was negative, at -0.6% quarter over quarter seasonally adjusted (qoqsa).

- **To follow:** The deceleration in activity during 2H23 continues to support our view for GDP growth and for monetary policy. For the Selic rate, our expectation is 11.75% for year-end 2023 and 9.50% for year-end 2024. We continue to expect growth at 3.0% in year-end 2023 and 2.2% in year-end 2024.

Brazil: IGP-10 increased 0.52% mom in November, in line with expectations

David Beker	**Natacha Perez**
+55 11 2188 4371	+55 11 2188 4127

IGP-10 inflation increase was unchanged at 0.52% mom in November, in line with market expectations, reaching -3.8% yoy (from -4.9% in October). Wholesale inflation was the main contributor, increasing 0.60% mom (from 0.61% mom previously), while agriculture and industrial prices rose by 0.65% mom (versus -1.41%) and 0.58% mom (versus 1.34%), respectively. Consumer prices rose by 0.39% mom (vs 0.25%), with the main upward pressure being Education, Reading and Recreation (2.93%, from 2.10%). Meanwhile, construction inflation increased 0.18% mom (from 0.36%).

- **To follow:** We expect a gradual acceleration of inflation, mainly in annual metrics due to base effect.

Special Disclosures

Some of the securities discussed herein should only be considered for inclusion in accounts qualified for high risk investment.

Disclosures

Important Disclosures

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.
BofA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.
The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments.
Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended.
SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.
Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.
The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.
Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.
This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors.
Individuals identified as economists do not function as research analysts under U.S. law and reports prepared by them are not research reports under applicable U.S. rules and regulations. Macroeconomic analysis is considered investment research for purposes of distribution in the U.K. under the rules of the Financial Conduct Authority.
Refer to BofA Global Research policies relating to conflicts of interest.
"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.
Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:
BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofaml.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.
This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the Electronic Communications Disclaimers for further information.
This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your

jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

Futures and options are not appropriate for all investors. Such financial instruments may expire worthless. Before investing in futures or options, clients must receive the appropriate risk disclosure documents. Investment strategies explained in this report may not be appropriate at all times. Costs of such strategies do not include commission or margin expenses.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Certain investment strategies and financial instruments discussed herein may only be appropriate for consideration in accounts qualified for high risk investment.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or

Research Analysts

Asia FI/FX Strategy & Economics

Helen Qiao
China & Asia Economist
Merrill Lynch (Hong Kong)
+852 3508 3961
helen.qiao@bofa.com

Claudio Piron
Emerging Asia FI/FX Strategist
Merrill Lynch (Singapore)
+65 6678 0401
claudio.piron@bofa.com

Adarsh Sinha
FX Strategist
Merrill Lynch (Hong Kong)
+852 3508 7155
adarsh.sinha@bofa.com

Jojo Gonzales ^^
Research Analyst
Philippine Equity Partners
jojo.gonzales@pep.com.ph

Abhay Gupta
Emerging Asia FI/FX Strategist
Merrill Lynch (Singapore)
abhay.gupta2@bofa.com

Pipat Luengnaruemitchai
Emerging Asia Economist
Kiatnakin Phatra Securities
pipat.luen@kkpfg.com

Miao Ouyang
China & Asia Economist
Merrill Lynch (Hong Kong)
miao.ouyang@bofa.com

Xiaoqing Pi
China Economist
Merrill Lynch (Hong Kong)
xiaoqing.pi@bofa.com

Benson Wu
China & Korea Economist
Merrill Lynch (Hong Kong)
benson.wu@bofa.com

Ting Him Ho, CFA
Asia Economist
Merrill Lynch (Hong Kong)
tinghim.ho@bofa.com

Janice Xue
Emerging Asia FI/FX Strategist
Merrill Lynch (Hong Kong)
janice.xue@bofa.com

Kai Wei Ang
Asia & ASEAN Economist
Merrill Lynch (Singapore)
kaiwei.ang@bofa.com

EEMEA Cross Asset Strategy, Econ

David Hauner, CFA >>
Global EM FI/FX Strategist
MLI (UK)
+44 20 7996 1241
david.hauner@bofa.com

Mai Doan
CEE Economist
MLI (UK)
mai.doan@bofa.com

Zumrut Imamoglu
Turkey & Israel Economist
MLI (UK)
zumrut.imamoglu@bofa.com

Vladimir Osakovskiy >>
EEMEA Sov.Credit/EQ strategist
Merrill Lynch (DIFC)
vladimir.osakovskiy@bofa.com

Jean-Michel Saliba
MENA Economist/Strategist
MLI (UK)
jean-michel.saliba@bofa.com

Merveille Paja
EEMEA Sovereign FI Strategist
MLI (UK)
merveille.paja@bofa.com

Mikhail Liluashvili
EEMEA Local Markets Strategist
MLI (UK)
mikhail.liluashvili@bofa.com

Tatonga Rusike
Sub-Saharan Africa Economist
MLI (UK)
tatonga.rusike@bofa.com

LatAm FI/FX Strategy & Economics

Claudio Irigoyen
Global Economist
BofAS
+1 646 855 1734
claudio.irigoyen@bofa.com

David Beker >>
Bz Econ/FI & LatAm EQ Strategy
Merrill Lynch (Brazil)
+55 11 2188 4371
david.beker@bofa.com

Jane Brauer
Sovereign Debt FI Strategist
BofAS
+1 646 855 9388
jane.brauer@bofa.com

Carlos Capistran
Canada and Mexico Economist
BofAS
+1 646 743 2921
carlos.capistran@bofa.com

Pedro Diaz
Caribbean Economist
BofAS
pdiaz2@bofa.com

Antonio Gabriel
Global Economist
BofAS
antonio.gabriel@bofa.com

Christian Gonzalez Rojas
LatAm Local Markets Strategist
BofAS
christian.gonzalezrojas@bofa.com

Lucas Martin, CFA
Sovereign Debt FI Strategist
BofAS
lucas.martin@bofa.com

Alexander Müller
Andean(ex-Ven) Carib Economist
BofAS
alexander.muller@bofa.com

Natacha Perez
Brazil Economist
Merrill Lynch (Brazil)
natacha.perez@bofa.com

Sebastian Rondeau
LatAm FI/FX Strategist
BofAS
sebastian.rondeau@bofa.com